

GROUP PROJECT REPORT

Student names:

Vidhi Patel (8832488)

Darpan Patel (8868275)

Naincy Patel (8825502)

Diya Neupane (8937597)

Nitisha Gori (8929479)

Jay Patel (8916940)

INFO2390: Information Technology Project

Date of Submission: 04/01/2025

Instructor: Biljana Ivkovic

TOURISM DESTINATION MANAGEMENT PLATFORM

Group 2

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Project Summary

Project Overview

Together with stakeholders the Tourism Destination Management Platform Development project builds a complete digital booking solution for travel agencies which simplifies reservation systems and leads to better destination management capabilities and better handling of activities alongside innovative customer services. The platform uses an integration of local systems and cloud technology for reliable scalability. The platform applies cybersecurity measures to safeguard customer sensitive information from fraud and data breaches.

Project Objectives

1. Platform Development
 - Development of a functional platform for destination management features an easy-to-use interface which developers will create from scratch.
2. Network Development
 - A secure network architecture which supports booking and reservation systems needs to be established as part of the network infrastructure.
3. Database Management
 - Database Management performs deployment and maintenance of a centralized system which stores and manages destination and activity data.
4. Security Measures
 - User data protection features in the system utilize multi-layered cybersecurity protocols comprising encryption standards and authentication measures and access control functions.
5. Performance Optimization
 - System performance must remain fast and responsive since the platform faces heavy user traffic requirements.
6. Ongoing Support & Maintenance
 - Ongoing Support & Maintenance – Develop a monitoring and troubleshooting strategy for long-term stability.

Project Deliverables

Team Contract

Team contract is an agreement that helps a group of people working together on a project. We as a team hosted few meetings to have the clear vision of every individual working as a team. In addition to that, we assigned roles and responsibilities respectively. Our agenda was to have work distributed equally which could help all the members to have equal opportunities to grow through this project. Furthermore, setting clear expectations to avoid any confusion and ensure everyone does their part is the reason behind the team contract regarding taking accountability and responsibility. The document also includes the team members availability for meetings and to work on the project along with the times where they are not available.

We as a team believe that the team contract has helped us to stay committed to the work as it has some specific deadlines for the tasks to be completed on time and so on. Having a clear tea, plan, keeping things fair with the equal distribution of work has helped our group especially to do better.

So, here is updated **Team Contract** Document-

TEAM CONTRACT – GROUP 2

Course Name: Information Technology Project

Student Names:

1. Vidhi Bharatkumar Patel (8832488)
2. Naincy Rakeshbhai Patel (8825502)
3. Darpankumar Jayantilal Patel (8868275)
4. Jaykumar Narendrabhai Patel (8916940)
5. Nitisha Gori (8929479)
6. Diya Neupane (8937597)

Project Title: **Tourism Destination Management Platform Development**

Presentation Date: 04/08/2025

Class Day / Time: Tuesday 7:00 pm

PROJECT DESCRIPTION

→ This project involves developing a tourism destination management platform for a travel agency.

It includes:

- Planning and managing the development of the platform.
- Designing and administering a network for booking and reservation systems. Installing and configuring workstations and servers for website hosting and database management.
- Designing, deploying, and managing databases for destination and activity information.
- Integrating cloud and on-premises infrastructure for scalability and performance.
- Securing the platform against cyber threats such as data theft and identity fraud.
- Providing ongoing support and troubleshooting for the platform.

GROUP MEMBERS' BEHAVIOURAL EXPECTATIONS

What do you need from each other to work effectively as a team? Examples: “communicating in a timely manner with each other,” “being punctual,” “meeting deadlines,” etc. **Each member** needs to include **at least one** behavioural expectation.

NAME	BEHAV. EXPECTATION	SPECIFIC EXAMPLE
Vidhi Patel	Accountability	Update progress and finish allocated tasks ahead of schedule. Look for teammates if anyone needs support, to bring the best out of our group.

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Diya Neupane	Timeliness	Consistency on submitting assigned work before the assigned due date ensuring to move forward without any delays.
Naincy Patel	Problem-Solving	Effectively detect potential problems in the project and work with the group to create appropriate solutions before they become more problematic.
Jaykumar Patel	Team Collaboration	Engage fully in brainstorming meetings to make sure that all team member's suggestions are acknowledged and considered when making decisions.
Nitisha Gori	Open Mindedness	Being open-minded within the team requires being responsive to fresh viewpoints, ideas, and methods. It means assessing other people's ideas honestly and without discrimination, even if they vary from our own.
Darpankumar Patel	Responsibility	Take responsibility for allocated work, communicate challenges quickly, and ensure that assignments are done on schedule.

ELEMENTS OF EFFECTIVE TEAMWORK

Each member should identify **at least one** of the skills below that you feel you **are strong in** and **one skill area that requires further development**.

COMMUNICATION

For effective teamwork to occur there needs to be a free, open, and appropriate expression of ideas and feelings always. Each member actively listens to other members, and after listening, provides effective non-judgmental feedback. Members take responsibility to communicate their ideas, thoughts, concerns, etc. Respectful communication (verbal and non-verbal) in response to cultural and personal differences contributes to team cohesion.

PARTICIPATION

Team members need to contribute fully to the best of their ability. Members need to take initiative in participating in the group tasks, especially in areas where they may have strengths. Those with greater ability may also need to help those who may be struggling by guiding, coaching, or critiquing. Those who may be struggling should be clear when they need clarification or assistance. To make teams work well, members need to make concerted efforts to be available for meetings. Wanting the group to succeed will contribute to success – begrudging contributions will erode success.

GIVE AND TAKE

There may be various ideas of how to achieve success within the team. Therefore, members need to be open to compromise and recognize that it is sometimes better to give in than be “right.”

Members need to discern the differences between their own needs and those of the group, ideally putting needs of team before the needs of the individual.

LEADERSHIP

Each member can contribute by being a leader in the group – a group can have more than one! Members lead with the skills and abilities they possess. A member who promotes team actions, decisions and ideas demonstrates leadership. A leader recognizes that he/she needs the team, and lets each member know where they stand. Leadership is also required to initiate the resolution of team breakdowns.

ORGANIZATION

An effective team needs to be organized. Members determine how the team is organized. This in turn, contributes to a member understanding his/her responsibilities, ensuring things are getting done and that there is no repetition in completing tasks.

PREPARATION

For teams to be successful, members need to be responsible with their duties and do the work required as agreed upon. Otherwise, team progress could be impeded, especially if further steps are dependent on the required work. Everyone needs to know that they can rely on their team members in completing assigned tasks/preparation work so that the team can progress in its objective(s).

PROCEDURE

In order for teams to function well, they need to set up procedures, which will clearly identify members' responsibilities and expectations for each other. Some type of order is necessary for teams to function effectively and smoothly, otherwise teamwork may end up being inefficient, inconsistent and regularly in "crisis". Members need to function according to agree upon procedures which will help to guide them in times of dilemmas.

CAPABILITY

Each member brings strengths to the group – not only existing skills and/or knowledge, but also the potential to learn, problem-solve and contribute to the team. Demonstrating one's interest and potential will often lead others to have more confidence in that member.

COMMITMENT

Members who are committed will often be the ones taking initiative to achieve goals/objectives of the team. They will be the ones who want to make sure the goals are clear to achieve success. Commitment needs to be directed to team goals, not individual goals. The level of commitment is usually related to the level of reliability.

PROGRESS and ASSESSMENT

A well running team is always interested in how things are going. Members of an effective team will contribute to an attitude of action and momentum. Often, progress is a good indicator of how well the team is working together. Regular assessment is necessary for a team to ensure it is continuing to work well together.

An effective team is not afraid to make changes in how it is organized or in its procedures so that improvement in achieving the goal/objective occurs.

SKILL STRENGTH IDENTIFICATION

Each member must choose **at least one skill** from “Elements of Effective Teamwork” that you feel is your **strength**. Be **extremely specific** in what activity you will apply this skill to the assignment.

Student Name	Skill strength identification	Specific Activity
Vidhi Patel	Communication	Effectively communicate project updates in meetings and on Slack.
Diya Neupane	Flexibility	Effective collaboration with team members, tackling challenges together and come with an effective outcome.
Naincy Patel	Participation	Being involved in team meetings, providing ideas and opinions, and supporting teammates when needed ensures that work is done correctly.
Jaykumar Patel	Organization	Establishing a precise work schedule and delegating tasks to guarantee the team meets project milestones and deadlines.
Nitisha Gori	Commitment	Show dedication by turning in my portion of the project report on time, participating in all team meetings, offering suggestions during conversations, and quickly responding to feedback to make sure the assignment achieves our objectives.
Darpankumar Patel	Leadership	Take the lead on essential tasks, guide team members,

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		and keep the team motivated to stay on schedule.
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SKILL DEVELOPMENT IDENTIFICATION

Each member must choose **at least one** skill to be developed from “Elements of Effective Teamwork”. Provide a specific example of how this skill is often challenging for you in a team situation and how you might develop it within this project.

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Student Name	Skill Development Identification	Specific Activity
Vidhi Patel	Procedure	Will increase by having clear, written procedures for tasks including system installation, database creation, and security, so it can be easily followed by the team.
Diya Neupane	Team Leadership	Always struggled and feared on being assigned with the role of a team leadership and responsibilities that comes within but through this project, I will closely observe and learn through my leader on this project i.e. Vidhi to enhance by leadership skill and get ideas on what a true leader holds for success.
Naincy Patel	Give and Take	I often find it challenging to balance my opinions and the group's, especially when I strongly agree with a specific approach. I will work on active listening and become more flexible to improve this ability, ensuring the success of the group comes before personal preferences.
Jaykumar Patel	Conflict Resolution	Have trouble sometimes resolving conflicts in a group environment. I will concentrate on fostering compromises, comprehending team members' viewpoints, and maintaining team alignment on goals to hone this ability.
Nitisha Gori	Preparation	I find it difficult to be prepared when balancing tasks and other responsibilities. To get better, I'll plan to finish my

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		work on time, go over the materials beforehand, and make sure I'm prepared to contribute to the project in a meaningful way.
Darpankumar Patel	Communication	Will work to improve both verbal and written communication skills by ensuring that ideas and updates are clearly and consistently delivered via meetings and Chat.

TEAM MEMBER AVAILABILITY SCHEDULE

Complete the grid below to show when each member is NOT available to work on assignments/projects with your team. If this changes, complete this again.

Time	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
8-9							
9-10							
10-11							
11-12							
12-1							
1-2							
2-3							
3-4		X					
4-5		X					
5-6	X	X	X	X			
6-7	X	X	X	X			
7-8	X		X	X			
8-9	X		X	X			

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9 - 10	X	X	X	X			
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Weekly Commitment:

- ➔ Tuesdays in class.
- ➔ Two additional hours for team meetings on Tuesdays 12:00 to 2:00 pm

TEAM ACTIVITY PLAN

Please fill out according to the assignment requirements. **Be as specific as possible** so that everyone is clear what is being completed and by when. Feel free to add rows as required.

Task	Role / Person	Due Date
Research and draft Work Breakdown Structure	All Members	01/22/2025
Drafting Meeting minute policy & Project Management	Vidhi Patel (Project Manager)	Ongoing
Draft initial network design and server configuration	Darpan Patel (System Architect & Security Specialist)	02/20/2025
Database initial network design and server configuration	Jay Patel (Database Administrator)	01/27/2025
Website Development (Frontend + Backend)	Nitisha Gori Diya Neupane (Full stack Developers)	Ongoing
Cloud Integration & Scalability & Documentation management	Naincy Patel (Quality Assurance) (Documentation Lead)	04/08/2025
Securing & Testing	Naincy Patel (SA) supporting	03/22/2025

CRITICAL REVIEW DATES

- ➔ To guarantee ongoing project development, we will arrange two extra hours each week in addition to our usual Tuesday class meetings.
- ➔ To assess the project's progress and make sure all milestones are on schedule, the team will convene every two weeks for a formal critical review.
- ➔ Methods of Communication:
 - OneDrive will be used to share information, such as design drafts, meeting minutes, and the project timeline, and Zoom will be used for virtual meetings.
 - Outlook will be used to communicate and send larger media.
 - It will be used to store project documents in the guarantee that everyone on the team has access to the most recent versions.
- ➔ Consequences of Infrequent Communication:
 - Uncoordinated work, missing deadlines, and misunderstandings can result from poor communication.
 - Task completion may be delayed, and the team may fall short of the project's overall goals if communication is not kept up to date.
 - The team member in charge of the work will be asked to take remedial action if communication is disregarded, which could result in changes to the way tasks are assigned.
- ➔ Details of Contact and Availability:

- In an emergency or when prompt communication is required, we shall exchange phone numbers and email addresses.
- Unless it is critical, we will refrain from contacting team members outside of regular working hours.
- The working hours are from 9 a.m. to 6 p.m. (local time).

➔ Deadlines for completing tasks:

- Every assignment shall be finished by the dates specified in the Team Activity Plan.
- If deadlines are missed, there will be a discussion to resolve the issue, and other steps will be taken to prevent delays in the duties that follow.

➔ Principal Communicator:

When necessary, **Vidhi Patel** will take the initiative to start conversations and communicate with the team. Additionally, this individual will make sure that everyone is informed of the project's status and any modifications to the plans.

Meeting Minutes:

➔ Meeting taking policy:

- Project Manager – **Vidhi Patel** will be tasked with recording meeting minutes each week under a rotating arrangement.
- Attendees, the date and time, the subjects addressed, the decisions made, the duties allocated, and the future steps will all be included in the minutes.
- All participants will review the minutes, which will then be distributed via OneDrive.

Review Date #1: 01/14/2025

Location/Method of Communication: Zoom

Review Date #2: 01/21/2025

Location/Method of Communication: Zoom

Review Date #3: 01/28/2025

Location/Method of Communication: Zoom

Review Date #4: 02/04/2025

Location/Method of Communication: Zoom

Review Date #5: 02/11/2025

Location/Method of Communication: Zoom

Review Date #5: 02/18/2025

Location/Method of Communication: School premise

Review Date #5: 02/28/2025

Location/Method of Communication: Zoom

Review Date #5: 03/04/2025

Location/Method of Communication: Zoom

Review Date #5: 03/10/2025

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Name: Jaykumar Patel

Signature: Jaykumar Patel

Date: 01/20/2025

Name: Nitisha Gori

Signature: Nitisha Gori

Date: 01/20/2025

Name: Darpankumar Patel

Signature: Darpankumar Patel

Date: 01/20/2025

Project Proposal

A project proposal is a document that highlights the core details of the projects, its significance and objectives. Our project proposal includes a brief introduction that has the description of what the project is about with the clear and concise objectives set out that gives the project an important aims to achieve. Furthermore, it includes the list of the resources, techniques and several ideas that are required. There is also a timeline set in the proposal so that, all of the team members including the stakeholders are well-aware on when the different steps to complete the project are to be completed.

It will also include the idea of the result of the project. Basically, the aim of the project proposal is to have people judge your ideas and decide weather the idea is good enough to be implemented as a project. We made this well-written document, so that the startup company will have a good understanding of our vision and an idea on what to expect. As the proposal has all the work well-organize, it also acted as a guide for our team during the project.

Therefore, here is our updated Project Proposal-

INFO2390 Information Technology Project

Tourism Destination Management Platform for Travel Agency

Vidhi Patel - Project Manager

Darpan Patel - System Architect & Security Specialist

Jay Patel - Database Administrator

Nitisha Gori - Full Stack Developer

Diya Neupane - Full Stack Developer

Naincy Patel - Quality Assurance & Documentation Lead

Instructor: Biljana Ivkovic

January 28, 2025

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Project Title

Tourism Destination Management Platform for Travel Agency

Introduction

Developing a solid solution to speed up a travel agency's booking and reservation procedures is the goal of the Tourism Destination Management Platform. This platform will concentrate on organizing, supervising, and carrying out the creation of a full system that can manage multiple elements of trip preparation. The system will be built to handle reservation and booking systems, server settings, managing databases, cloud and on-premise cooperation, information security, and continuous platform support, as well as network architecture for efficient communication.. In addition to that, the system will also include backup solution for data security reasons. This idea is necessary to increase company's effectiveness, security, and user experience in the travel and tourism sector.

Objectives

Specific

- **Infrastructure and Security:** Ensuring the high availability and security with the help of the network architecture (topology) as well setup within those servers that are being used for the project.
- **Database Management:** Creation of a database to store information of the customers, booking, their chosen destination, payments as well as the reviews.
- **Cloud Integration:** Enable AWS services where instances are created.
- **Cybersecurity Measures:** Implement security protocols to ensure safe payment gateway.
- **Backup Systems:** For the backup of the website, git hub is being used to backing up the system in case of any situation that might cause us to loose the data. While, 3-2-1 Backup Rule is going to be implemented through out our system.
 - a. **Three** Copies of the system would be created.
 - b. **Two** Storage Types meaning these copies would be saved on internal hard drive as well as external hard drive.
 - c. **One** offsite means that one copy of the data would be saved on Cloud Storage.

Measurable

- **System Performance:** Within the first six months of implementation, the platform should have 99% uptime. Monitor and report on system performance parameters monthly, such as customer demand and reaction time.
- **Security & Compliance:** Conduct security tests, ensuring at least 90% success rate in vulnerability assessments.
- **User Adoption:** Achieve a 70% user acceptance rate within six months post-launch.

Achievable

- **Training & Support:** Provision of the detailed instruction manuals and user training.
- **Resource Allocation:** Assign skilled personnel for software, hardware, and network management.
- **Testing & Feedback:** Conduct testing and improvements at every development phase.

Time-bound

- Design & Planning:
- Development & Deployment:
- Testing & Implementation:
- Presentations:
- Post-Launch Support: Ongoing

Scope

Inclusions

- Full development of a tourism destination management platform.
- Network infrastructure setup to ensure system stability and security.
- Database management for tracking users, bookings, activities, and locations.
- Cloud and on-premises integration for enhanced accessibility.
- Cybersecurity measures including firewalls and encryption to ensure data protection.
- Regular backup procedures to prevent data loss.

Exclusions

- Third-party integrations beyond travel bookings.

- Major modifications to existing IT infrastructure.
- Ongoing maintenance post-warranty period.

Deliverables

- A fully functional web- tourism destination management platform.
- **Comprehensive system documentation, including an installation guide, maintenance manual, and user guide.**
- A detailed build book outlining infrastructure and system setup.
- Instructional materials for end users.

Methodology

The Agile methodology will be followed, allowing for continuous feedback and iteration.

The project phases include:

1. **Design & Planning:** Conduct research, identify requirements, define system architecture.
2. **Development:** Build frontend, backend, database, and integrate cloud services.
3. **Integration & Testing:** Perform functional testing, security audits, and gather user feedback.
4. **Deployment & Support:** Deploy the platform, provide training, and monitor performance.

Timeline

Phase	Duration	Key Milestone
Project Team Formation	January 10 th 2025	Completed
Finalize Project Plan	January 18 th 2025	Completed
Research & Design	January 10 th , 2025, to February 16 th 2025	Completed

Development Phase	February 18th, 2025, to March 15th, 2025	Completed
Testing & Integration	March 15th, 2025 to March 31th, 2025	Completed
Documentation	March 25th, 2025, to April 1st, 2025	Completed
Deployment & Launch	April 3rd, 2025 to April 6th, 2025	Upcoming
Presentation Phase	April 8th, 2025	Upcoming

Resources

Personnel

- Project Manager: Vidhi Patel
- System Architect & Security Specialist: Darpan Patel
- Database Administrator: Jay Patel
- Full Stack Developers: Nitisha Gori, Diya Neupane
- Quality Assurance & Documentation Lead: Naincy Patel

Hardware

- Servers, networking equipment, and testing devices.

Software

- Linux and Windows-based systems for infrastructure deployment.
- Database management tools, cybersecurity software, and cloud platforms.

External Expertise

- Cybersecurity specialists for encryption and firewalls.
- Cloud integration consultants to optimize scalability and availability.

Project Outline – Plan

Tourism Destination Management Platform for Travel Agency

INFO2390 Information Technology Project

Vidhi Patel - Project Manager (8832488)

Darpan Patel - System Architect & Security Specialist (8868275)

Jay Patel – Database Administrator (8916940)

Nitisha Gori – Full Stack Developer (8929479)

Diya Neupane - Full Stack Developer (8937597)

Naincy Patel – Quality Assurance & Documentation Lead (8825502)

Instructor: Biljana Ivkovic

Date of Submission - February 10,2025

Introduction:

This project aims to create a tourism destination management platform that will make it easy for tourists to plan tours, research places, and handle reservations. It integrates database administration, cloud services, and a secure network infrastructure for maximum efficiency and security.

Objectives:

- Provide an easy-to-use reservation and booking platform.
- Create a network infrastructure that is both safe and flexible.
- Incorporate a trustworthy database for managing locations and events.
- Set cybersecurity safeguards in place to stop risks like identity theft.

Scope:

In scope: Database deployment, cloud integration, network setup, website development, and security implementation.

Out of the scope: AI-based recommendations and mobile app development (if not included in the present plan).

Project Phases & Timeline

Phase	Start Date	End Date	Key Deliverables
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Initiation	Jan 10	Jan 21	Team Contract, Project Selection
Planning	Jan 10	Feb 10	Project Proposal, WBS, Risk Assessment
Infrastructure Setup	Feb 11	Mar 7	Network & Server
Configuration Development	Mar 7	Apr 1	Backend, Frontend, Database, Cloud Integration
Integration Testing & Validation	Apr 1	Apr 8	System & Security Testing
Project Closure	Apr 8	Apr 8	Final Report & Presentation

Team Roles & Responsibilities:

Team Member	Role	Responsibilities
Vidhi Patel	Project Manager	Oversee project progress and ensure deadlines are met
Naincy Patel	Quality Assurance & Documentation Lead	Set up and configure cloud infrastructure
Diya Neupane	Backend Developer	Develop API, handle
Nitisha Gori	Frontend Developer	Design UI, integrate with backend
Jaykumar Patel	Database Administrator	Manage database setup and optimization

<p>Darpankumar Patel</p>	<p>System Architect & Security Specialist</p>	<p>Configure Network Infrastructure & Implement cybersecurity measures</p>
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Work Breakdown Structure (WBS):

Phase 1: Initiation:

1.1 Team Formation:

Task: Assign roles, define responsibilities, and create the project team.

Person(s): All members

Due Date: 01/21/2025

1.2 Project Selection:

Task: Using the project selection standards, define the project's goals, variables, and starting needs.

Person(s): All members

Due Date: 01/15/2025

1.3 Project Proposal:

Task: Create and submit an official project proposal that details the project's objectives, schedule, and goals.

Person(s): Vidhi Patel (Project Manager)

Due Date: 01/28/2025

Phase 2: Planning:

2.1 Project Outline & Work Breakdown Structure

Task: Define tasks, milestones, and dependencies for efficient workflow.

Person(s): Vidhi Patel (Project Manager)

Due Date: 02/10/2025

2.2 Build Book (Technical Documentation):

Task: Record the deployment strategy, security guidelines, database design, and system architecture.

Person(s): Vidhi Patel (Project Manager)

Due Date: 04/01/2025

Phase 3: Infrastructure Setup:

3.1 Network Topology Configuration:

Task: According to the project requirements, create the network topology, which includes servers, workstations, switches, and routers.

Person(s): Darpan Patel (System Architect & Security Specialist)

Due Date: 02/21/2025

3.2 Workstation configuration & Security Setup:

Task: Install and set up the platform's required servers, ensuring they work with the overall architecture of the infrastructure.

Person(s): Darpan Patel (System Architect & Security Specialist)

Due Date: 03/07/2025

Phase 4: Development:

4.1 Backend API Development:

Task: Create the platform's backend APIs, ensuring data shifts are stored and communicating with other system components.

Person(s): Nitisha Gori, Diya Neupane (Full Stack Developers)

Due Date: 03/21/2025

4.2 Frontend UI Design:

Task: Create the platform's user interface (UI) with functionality and user experience in mind.

Person(s): Nitisha Gori, Diya Neupane (Full Stack Developers)

Due Date: 04/01/2025

4.3 Database Deployment

Task: Configure the database, considering its structure, limitations on access, and backend API interface.

Person(s): Jay Patel (Database Administrator)

Due Date: 04/01/2025

4.4 Cloud Infrastructure Setup:

Task: Create and assemble the cloud's storage, network, and virtual machine configurations.

Person(s): Darpan Patel (System Architect & Security Specialist)

Due Date: 04/01/2025

Phase 5: Testing & Validation:

5.1 Individual Testing:

Task: Make sure each component works as expected by conducting unit testing.

Person(s): Naincy Patel (Quality Assurance), Darpan Patel (System Architect & Security Specialist)

Due Date: 04/04/2025

5.2 System Testing:

Task: To ensure the system is flexible, test its performance under high-load situations.

Person(s): Naincy Patel (Quality Assurance), Darpan Patel (System Architect & Security Specialist)

Due Date: 04/06/2025

5.3 Security Testing:

Task: Conduct security audits to verify compliance with security guidelines, identify weaknesses, and apply required solutions.

Person(s): Darpan Patel (System Architect & Security Specialist)

Due Date: 04/08/2025

Phase 6: Project Closure:**6.1 Final Report Submission:**

Task: Create and submit the project's final report, including results and outcomes and documentation of the development, testing, and implementation process.

Person(s): Vidhi Patel (Project Manager)

Due Date: 04/01/2025

6.2 Project Presentation:

Task: Create and present the project's final presentation, emphasizing its significant achievements, difficulties, and results.

Person(s): Vidhi Patel (Project Manager), All Members

Due Date: 04/08/2025

Risk Assessment & Mitigation:

Risk	Likelihood	Impact	Mitigation Strategy
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Security breaches	High	Critical	Implement encryption, firewalls, penetration testing
Server downtime	Medium	High	Cloud redundancy, backup policies
Missed deadlines	Medium	Medium	Weekly check-ins, task prioritization
Scope creep	Low	High	Define clear requirements, limit scope changes

Deliverables & Submission Dates:

Deliverable	Due Date
Project Selection	Jan 15
Team Contract	Jan 21
Project Proposal	Jan 28
Project Outline	Feb 10
Build Book (Technical Report)	Apr 1
Final Project Report	Apr 1
Final Presentation	Apr 8

Communication Plan:

Weekly Team Meetings: Every Tuesday at 12pm to 2 pm

Project Updates: Jira, Slack, or Email

Stakeholder Check-ins: [Every two weeks/monthly as required]

Emergency Contact Method: [Phone, WhatsApp, etc.]

Dependencies:

1. Project Initiation (Jan 10 – Jan 21, 2025)

1.1 Team Formation & Contract (Jan 10 – Jan 21)

Dependencies: None (this is the initial task).

1.2 Project Selection & Approval (Jan 10 – Jan 15)

Dependencies:

1.1 Team Formation & Contract (Team should be formed before selecting a project).

1.3 Project Proposal (Jan 10 – Jan 28)

Dependencies:

1.2 Project Selection & Approval (Project selection must be finalized before defining goals, scope, and objectives).

2. Project Planning (Jan 10 – Feb 10, 2025)

2.1 Project Outline & Work Breakdown Structure (Jan 28 – Feb 10)

Dependencies:

1.3 Project Proposal (Proposal must be finalized before defining the project outline and WBS).

1.2 Project Selection & Approval (Selected project will define the structure of tasks).

2.2 Build Book (Technical Documentation) (Jan 10 – Apr 1)

Dependencies:

2.1 Project Outline & Work Breakdown Structure (Build Book should be based on tasks and resources defined in WBS).

3.1 Network & Server Setup (Network and server details must be documented in Build Book).

3. Infrastructure Setup (Feb 11 – Mar 7, 2025)

3.1 Network & Server Setup (Feb 11 – Feb 21)

Dependencies:

2.1 Project Outline & Work Breakdown Structure (Network setup depends on project outline and required resources).

2.2 Build Book (Technical Documentation) (Network setup needs to align with the Build Book).

3.2 Workstation Configuration & Security Setup (Feb 21 – Mar 7)

Dependencies:

3.1 Network & Server Setup (Workstations and security policies can only be configured after the network and server setup is completed).

2.2 Build Book (Technical Documentation) (Security policies and configurations must follow the design outlined in the Build Book).

4. Platform Development (Mar 7 – Apr 1, 2025)

4.1 Backend Development (Mar 7 – Mar 21)

Dependencies:

3.2 Workstation Configuration & Security Setup (Backend development can start after workstations and security policies are in place).

3.1 Network & Server Setup (Backend APIs will need network services and servers to run on).

4.2 Frontend Development (Mar 21 – Apr 1)

Dependencies:

4.1 Backend Development (Frontend development requires the backend APIs to integrate with).

3.1 Network & Server Setup (Frontend UI will need to be deployed on the server and integrated with the backend).

4.3 Database Implementation (Mar 21 – Apr 1)

Dependencies:

4.1 Backend Development (Database implementation needs to align with backend API requirements for bookings and reservations).

3.1 Network & Server Setup (Database must be hosted on the network setup).

4.4 Cloud Integration & Load Testing (Mar 21 – Apr 1)

Dependencies:

4.1 Backend Development (Cloud deployment needs to support the backend system).

4.2 Frontend Development (Cloud infrastructure should support both backend and frontend interactions).

3.1 Network & Server Setup (The cloud setup must align with the on-premises servers).

5. Testing & Validation (Apr 1 – Apr 8, 2025)

5.1 Individual Testing (Apr 1 – Apr 4)

Dependencies:

4.1 Backend Development (Backend modules must be complete for individual testing).

4.2 Frontend Development (Frontend UI needs to be ready for unit testing).

4.3 Database Implementation (Database must be deployed and integrated for testing).

5.2 System Testing (Apr 4 – Apr 6)

Dependencies:

5.1 Individual Testing (Individual modules should be tested before system testing).

4.4 Cloud Integration & Load Testing (System testing needs to consider cloud setup for deployment).

5.3 Security Testing (Apr 6 – Apr 8)

Dependencies:

5.2 System Testing (Security testing will only be valid after system testing is complete).

3.2 Workstation Configuration & Security Setup (Security testing requires proper firewall, VPN, and access control configurations).

6. Project Documentation & Presentation (Apr 1 – Apr 8, 2025)

6.1 Final Project Report (Apr 1)

Dependencies:

5.3 Security Testing (Final report needs to include security testing results).

5.2 System Testing (System testing results should be included in the final report).

4.4 Cloud Integration & Load Testing (Cloud integration and performance testing results should be documented).

6.2 Final Presentation (Apr 8)

Dependencies:

6.1 Final Project Report (Final report must be ready before the presentation).

5.3 Security Testing (Security results should be shared in the final presentation).

Dependencies Overview in Project Outline:

Phase 1: The first phases of planning are driven by team formation, project selection, and proposal.

Phase 2: While the Build Book depends on the infrastructure setup and the specified plans, the Project Outline/WBS rely on the project proposal being finalized.

Phase 3: Workstation and security setup are affected by the network and server setup that comes before them.

Phase 4: While cloud integration depends on every component of the system, backend development impacts database and frontend operations.

Phase 5: Successful platform component development and integration are built upon during the testing phases.

Phase 6: All earlier phases must be finished in order to submit the final report and presentation.

Conclusion:

An overview of how the project will provide an enjoyable experience in tourism management.

The goal of this project is to provide a scalable, efficient, and safe tourist platform. High availability and dependability will be ensured while improving user experience and security through the integration of cloud computing, a robust database, and a well-organized network.

Technical Report – Build Book

Build Book for Tourism Destination Management Platform

Project Name: Tourism Destination Management Platform

Vidhi Patel (8832488)

Darpan Patel (8868275)

Naincy Patel (8825502)

Diya Neupane (8937597)

Nitisha Gori (8929479)

Jay Patel (8916940)

Course code: INFO2390

Instructor: Biljana Ivkovic

Due Date: 1st April 2025

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Conclusion :.....**Error! Bookmark not defined.**

Introduction:

- **Purpose of the Manual:** The manual advises creating, configuring, and maintaining a complete platform for managing tourist destinations. It offers full instructions on how to set up the system, manage data, deploy the platform, and secure it.
- **Target Audience:** System administrators, IT departments, developers, and stakeholders monitoring the tourism platform's operations are the target audience for this handbook.
- **Scope of the IT Project:** A server-based infrastructure and AWS S3 for cloud storage of static assets (such as documents and images) are used to construct a tourism destination management platform. Web servers, a database system, security procedures, and user management tools will all need to be set up for the project.
- **Project Overview:**
- **Brief Description of the Project:** Travel agencies can use the platform to manage reservations, activities, and tourist destinations. While administrators can control stocks, reservations, and other essential system data, customers can search and book holiday experiences using an easy-to-use interface.
- **High-Level Goals and Objectives:**
 1. To give clients a user-friendly way to book travel experiences.
 2. To develop a solid backend to manage reservations, store data, and provide security.

3. AWS S3 can store static assets like documents and photos.

- **Key Stakeholders and Their Roles:**

1. Project Manager: Project managers oversee planning and project execution.
2. Developers: Implement platform features like backend logic and website user interface.
3. System Administrators: System administrators are responsible for setting up and maintaining the virtual machines and servers.
4. Security experts: Put the platform's security measures into place and monitor them.

System Architecture:

Diagrams and Descriptions of System Components:

- **Web Server:** Web servers will house the platform's front-end and back-end, allowing users to access the reservation system using a web browser.
- **Front-End:** Built with React.js for dynamic user interface.
- **Back-End:** Developed using Node.js and Express.js for API management.
- **Database servers:** Customer reservations and information about destinations and activities will be stored in a relational database (like MySQL).
- **AWS S3:** Used only to store static resources (such as information and photos of places) to free up server storage and enhance website speed.

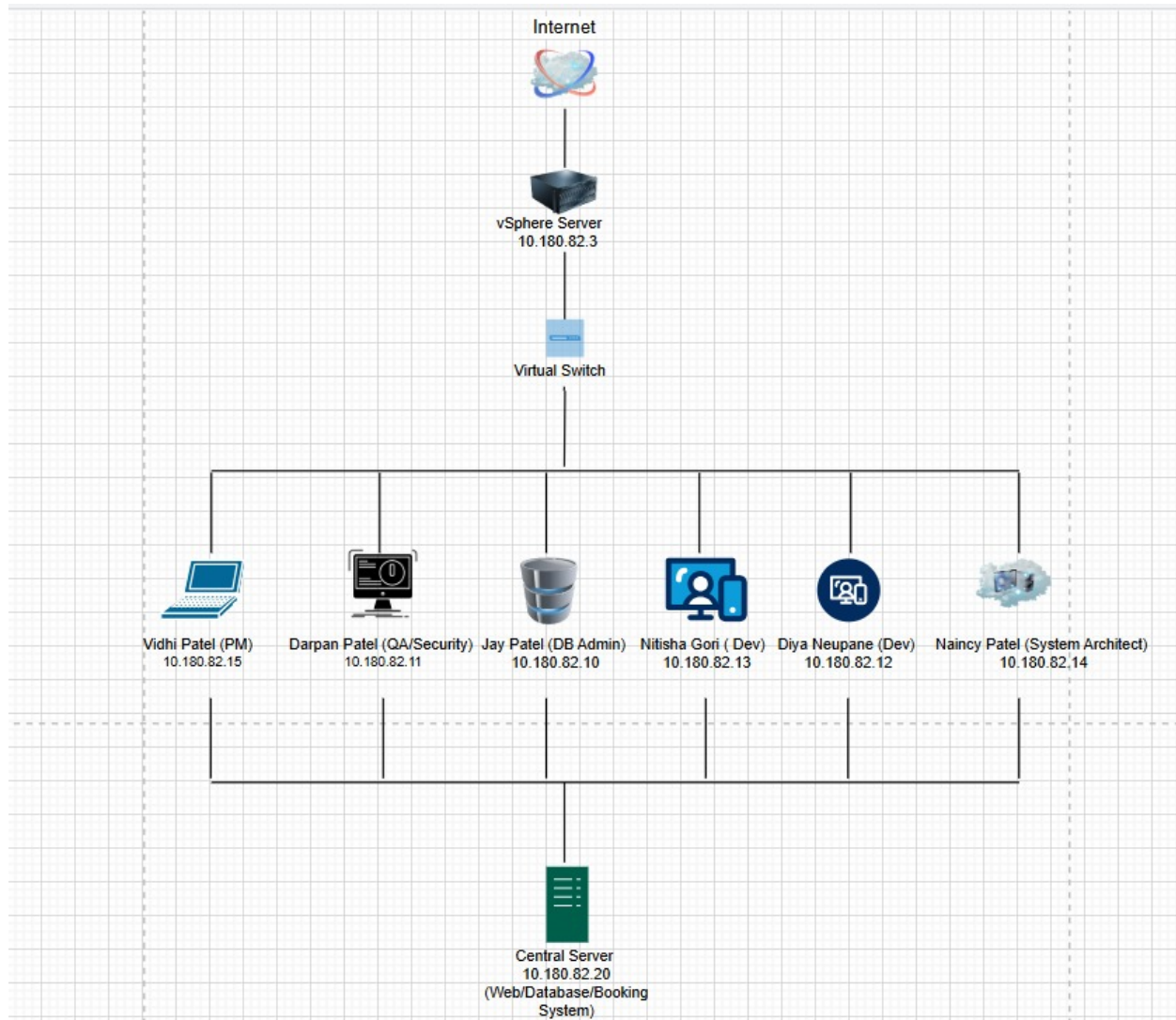
Hardware and Software Requirements:

- **Central Server:** VM with 4 vCPUs, 8 GB RAM, 50 GB SSD.
- **Workstations:** Minimum 2 cores, 4 GB RAM, 10 GB free space.

- **Software:** Apache/Nginx web server, MySQL database, PHP backend scripting, and Linux-based operating system (Ubuntu or CentOS). React.js was used to create a user-friendly front-end. Node.js and Express.js are used to provide a scalable back-end API.
- **OS:** Ubuntu 20.04 LTS
- **Web Server:** Node.js 18.x, Express.js 4.x
- **Front-End:** React.js 18.x, JavaScript ES6+, CSS3, HTML5
- **Database:** MySQL 8.x
- **Tools:** npm 8.x, rsync, pm2, dotenv

Network Topology:

- **Private Subnet:** The database and web servers will be connected to a private network for security reasons.
- **Public Subnet:** Public traffic will be routed to the appropriate internal servers via a load balancer or gateway.
- **Components:**
 - **vSphere Server (10.180.82.3):** Manages virtual machines.
 - **Virtual Switch:** Connects the Central Server and workstations.
 - **Central Server (10.180.82.20):** Hosts the TMS application and



- **Local Server Configuration:**
- **IP Address:** 10.180.82.20
- **Managed By:** vSphere Server at 10.180.82.3
- **Database:** MySQL installed and configured on the Central Server.
- **Firewall and Security Settings:** Configured to allow SSH (22), TMS application (3000), and MySQL (3306) within the local network.
- **Database Architecture:**
- **Technology:** MySQL 8.x

- **Configuration:**
- Hosted on Central Server (10.180.82.20)
- Database Name: tms_db
- User: tms_user with restricted privileges

Installation and Setup:

Step-by-step instructions for Installing the System:

Set up VMs and Servers:

- Start virtual machines (like Ubuntu or CentOS) on your system.
- Set up Nginx or Apache as the web server.
- Configure PHP and MySQL for the backend services.

Install Necessary Packages:

- Verify that every package (such as PHP, MySQL client, and AWS) is installed and current.

Deploy the Platform Code:

- Upload the application code to the relevant directory or clone the repository to the web servers.
- Assign appropriate rights to folders and files.

Transfer Source Code:

- Command : `rsync -avz --exclude 'node_modules'`
centralserver@10.180.82.20:/var/www/tourism_website_auth

Set Up Database:

- MySQL should be installed and set up on the database server.
- Make the databases and tables required for booking and destination management.

Configure AWS S3 for Static Assets:

- In AWS, create an S3 bucket to hold documents and photos.
- If necessary, ensure the bucket has the proper permissions set for public access.

Configuration Settings (Database, Servers, etc.):

- **Database Configuration:** Configure MySQL users, grants, and databases for the travel information.
- **Server Configuration:** Set up SSL/TLS for secure connections and configure Apache or Nginx for best performance.

Troubleshooting Common Installation Issues:

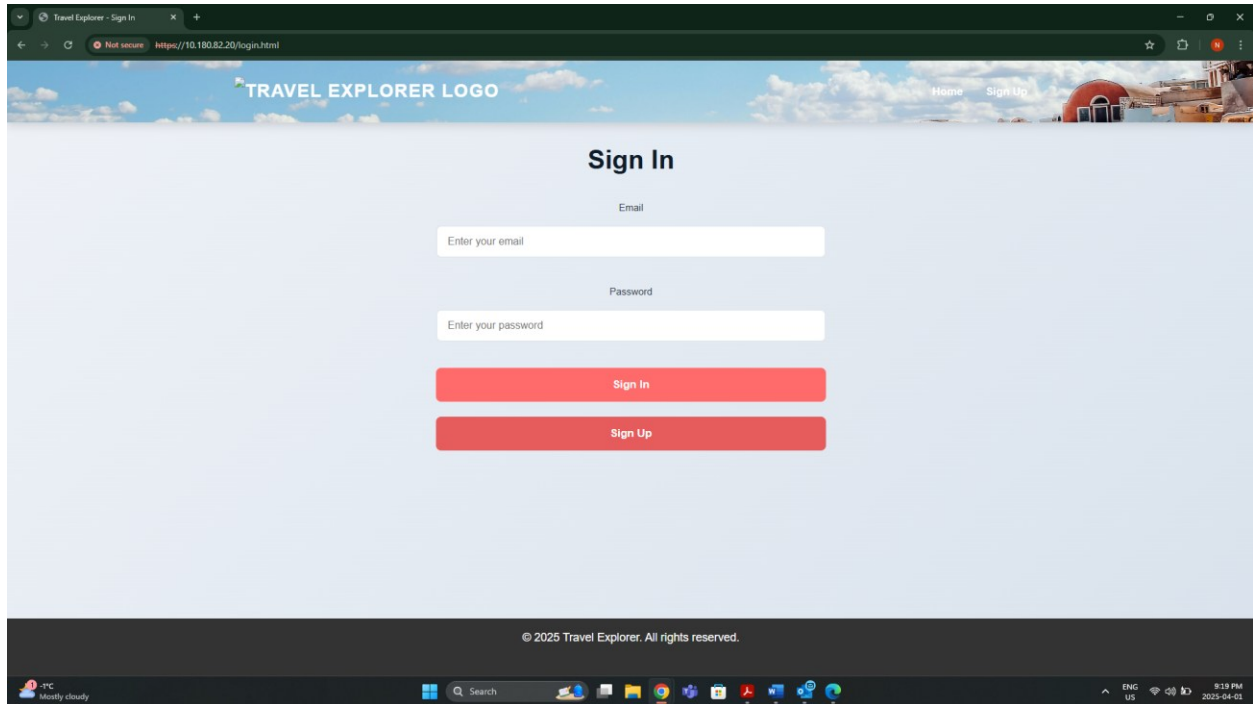
- **Issue 1:** Nginx/Apache won't start. Examine log files and settle port disputes.
- **Issue 2:** MySQL connection problems: Check firewall settings and credentials.
- **Issue 3:** Unable to connect to AWS S3 For the application to access S3, ensure the appropriate AWS IAM permissions are set.
- **Issue 4:** Database connection fails. Verify .env credentials and MySQL service status.

User Guide:**Accessing the System (Login Credentials):**

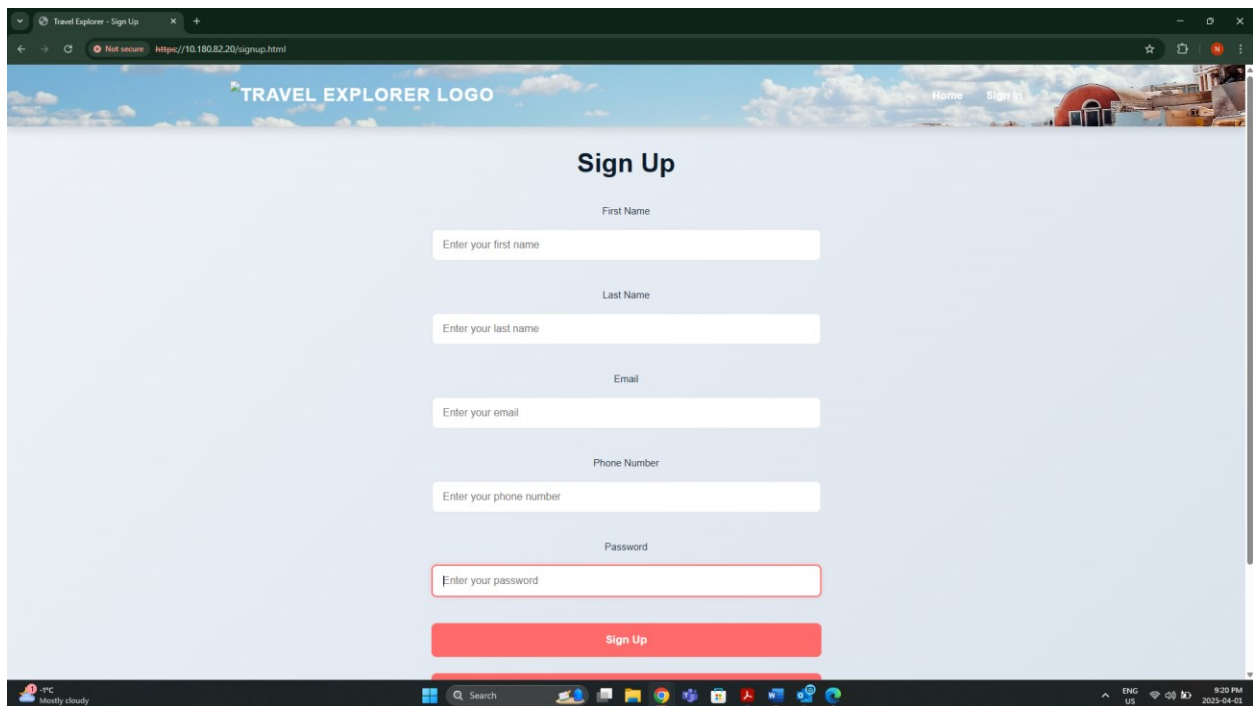
GROUP PROJECT REPORT

Users will access the web interface to log in using their username and password.

Admins can use the backend dashboard to create and manage user accounts.



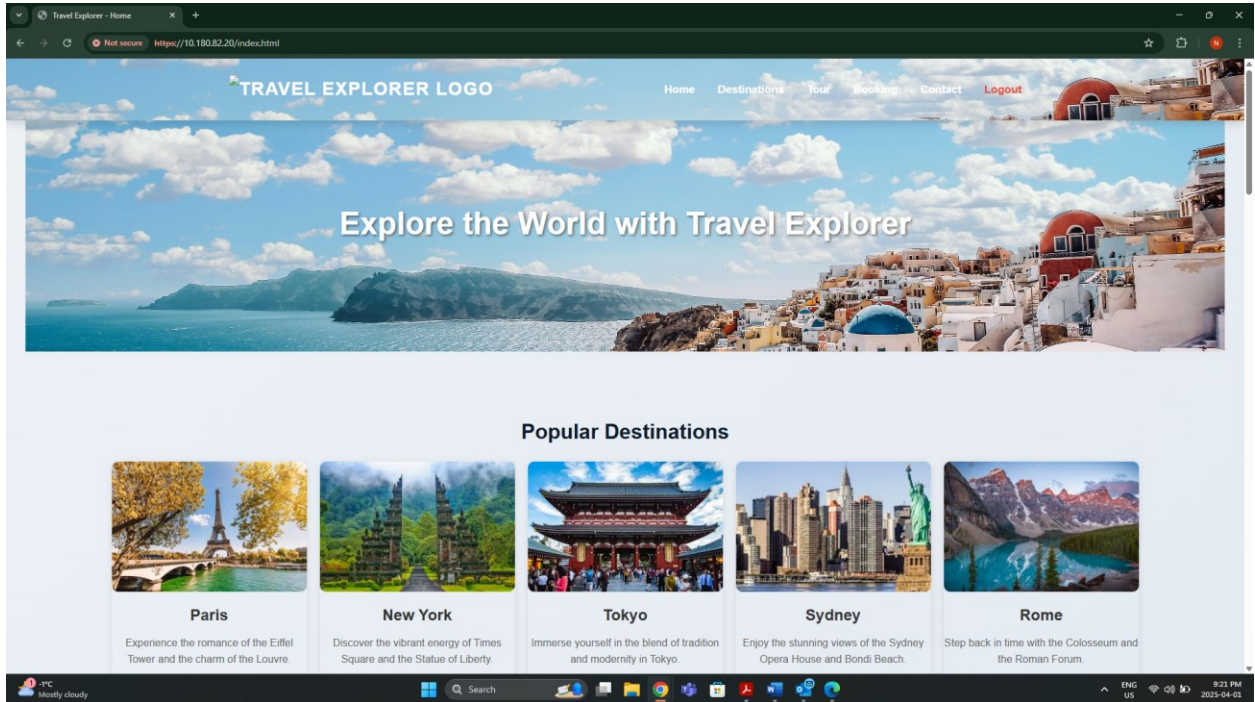
The screenshot shows a web browser window displaying the "Sign In" page for "Travel Explorer". The page features a header with the "TRAVEL EXPLORER LOGO" and navigation links for "Home" and "Sign Up". The main content area is titled "Sign In" and contains two input fields: "Email" with the placeholder "Enter your email" and "Password" with the placeholder "Enter your password". Below these fields are two red buttons: "Sign In" and "Sign Up". The footer of the page displays the copyright notice "© 2025 Travel Explorer. All rights reserved." The browser's address bar shows the URL "https://10.180.82.20/login.html". The Windows taskbar at the bottom indicates the system time as 9:19 PM on 2025-04-01.



The screenshot shows a web browser window displaying the "Sign Up" page for "Travel Explorer". The page features a header with the "TRAVEL EXPLORER LOGO" and navigation links for "Home" and "Sign In". The main content area is titled "Sign Up" and contains five input fields: "First Name" (placeholder: "Enter your first name"), "Last Name" (placeholder: "Enter your last name"), "Email" (placeholder: "Enter your email"), "Phone Number" (placeholder: "Enter your phone number"), and "Password" (placeholder: "Enter your password"). Below these fields is a red "Sign Up" button. The browser's address bar shows the URL "https://10.180.82.20/signup.html". The Windows taskbar at the bottom indicates the system time as 9:20 PM on 2025-04-01.

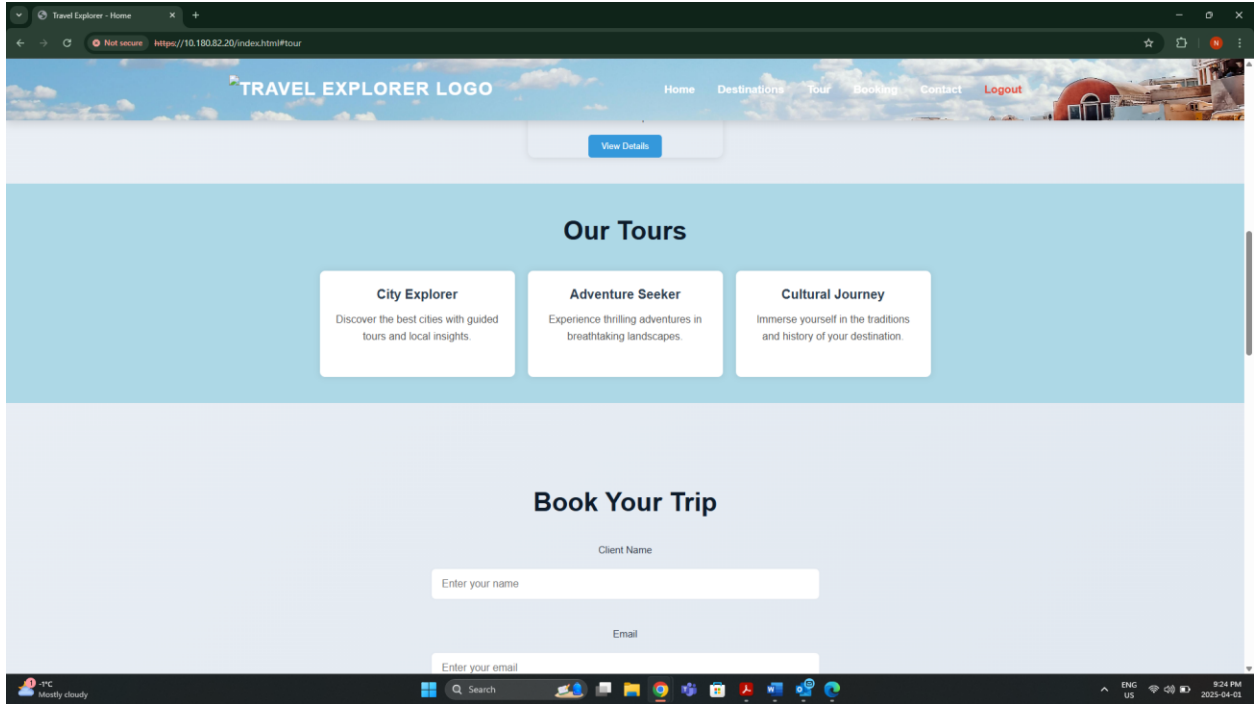
Navigating the User Interface:

- Homepage: Showcases highlighted locations and events.

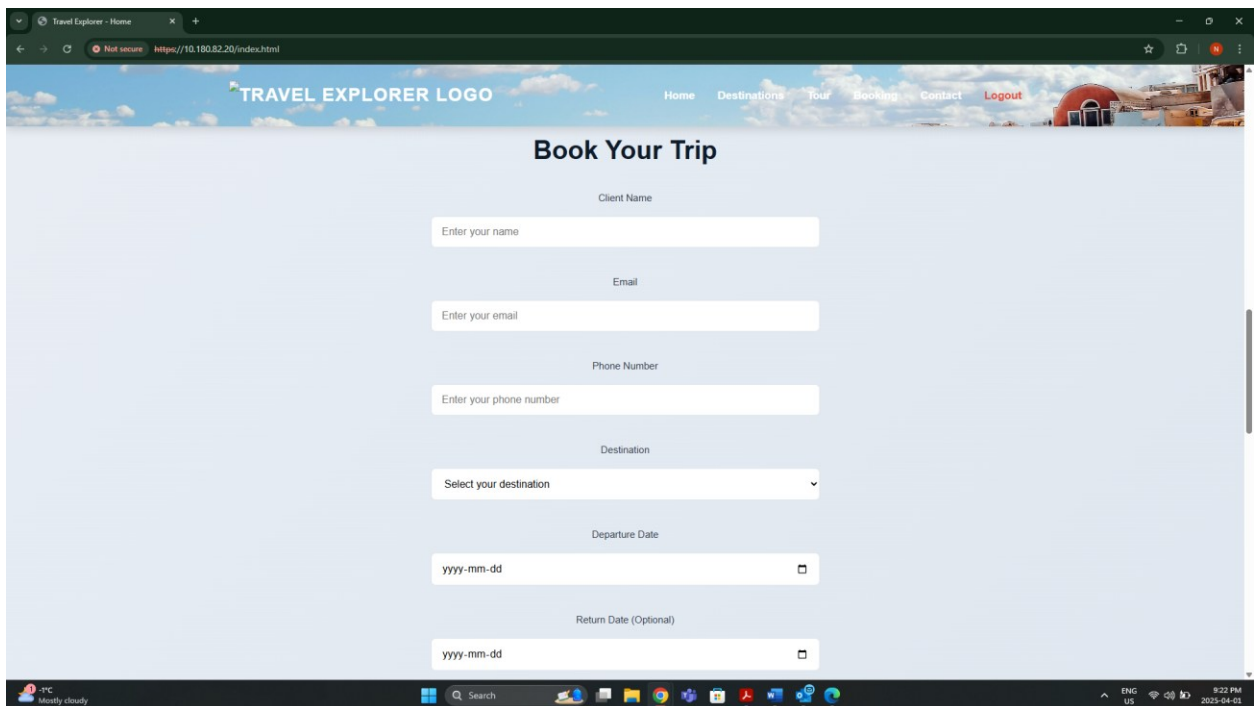


- Search Interface: Users can filter activities and destinations using the search interface by price, location, and other criteria.

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- Booking Interface: By choosing dates, group sizes, and other details, users can reserve activities and locations.



Performing Common Tasks:

- **Data Entry:** By completing forms with details like titles, descriptions, prices, and photographs, administrators can add new locations and activities.
- **Reporting:** Administrators could create reports on consumer activity, financial summaries, and booking information.

Security Guidelines:

Authentication and Authorization Mechanisms:

- Implement multi-factor authentication (MFA) and strong password policies for user and administrator accounts.

Best Practices for Securing the System:

- Update all programs and system software regularly.
- To prevent unwanted access, intrusion detection systems (IDS) and a firewall should be implemented.
- Use strong passwords and encrypt sensitive data.

Handling Sensitive Data:

- All sensitive information, such as client personal data, should be kept in secured databases.
- Store credentials in .env files.
- Use parameterized queries to prevent SQL injection.
- To protect data when transferring between users and the platform, utilize HTTPS.

Maintenance and Updates:

- **Frequent System Backups:** Plan weekly backups for application files and daily database backups. For extra security, keep backups on an external server.

- **Keeping an eye on logs and performance:** To monitor server performance, use monitoring tools such as Nagios or CloudWatch—Configure alerts for mistakes or heavy traffic.
- **Using Updates and Patches:** Security updates are regularly applied to the database, application, and web server. Keep an eye on logs and performance to monitor them in a staging environment.

Troubleshooting and Support:

Common Issues and Their Solutions:

- **Issue 1:** Slow website loads.
- **Solution:** Optimize queries and monitor server resource utilization.
- **Issue 2:** The database contains inconsistent data.
- **Solution:** Check logs and confirm database replication settings.
- **Issue 3:** Image not loading.
- **Solution:** Check S3 Bucket permissions and URLs.

Contact Information for Technical Support:

- **Support Email:** support@travelexplorer.com
- **Phone:** +1234567890

Escalation Procedures:

- First-level assistance will try to fix the problem.
- Report the issue to the system administrator for additional research if unresolved.

Appendices:

Glossary of Terms:

- **S3 Bucket:** An S3 bucket is an AWS storage container with static files.
- **VM:** A virtual machine is a virtualized instance of a computer running its own operating system.
- **MySql:** Database management system to create the datastore.
- **Node.js:** JavaScript runtime for backend.

Frequently Asked Questions (FAQs):

- How can my password be changed? On the login screen, click the link to restore your password.

References and Resources:

AWS Documentation: <https://docs.aws.amazon.com>

MySQL Documentation: <https://dev.mysql.com/doc/>

Conclusion:

The Tourism Destination Management Platform offers a safe and expandable way to handle travel reservations and destination data by effectively integrating on-premises servers with AWS S3 storage. The system's well-designed architecture guarantees safe transactions, effective data management, and smooth user access.

Major accomplishments include an organized network, safe authentication procedures, improved database speed, and cloud integration to increase scalability. Future improvements might concentrate on mobile accessibility and AI-driven suggestions, even though issues like system optimization and security implementation were resolved.

By providing a thorough manual for system deployment, upkeep, and scalability, this Build Book guarantees that the platform will remain dependable and flexible.

Meeting Minutes

Meeting Minutes

INFO2390: Information Technology Project

Group-2

Project: Tourism Destination Management Platform

Members

Vidhi Patel (8832488)

Naincy Patel (8825502)

Darpankumar Patel (8868275)

Jaykumar Patel (8916940)

Nitisha Gori (8929479)

Diya Neupane (8937597)

Date: 01/14/2025

Time: 12:00 pm – 01:50 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Team member's availability, Role preferences, Questions & Answers.

Work Accomplishments: Worked on Team contract, assigned roles after conclusion of what everyone was good at.

Date: 01/14/2025

Time: 07:00 pm – 08:40 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Team member's availability, Role preferences, Questions & Answers.

Work Accomplishments: Completed Team contract after discussing all the questions we had, with professor.

Date: 01/21/2025

Time: 12:00 pm – 01:39 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Distributing equal workload among team members

Work Accomplishments: Task breakdown roughly on a document

Date: 01/21/2025

Time: 07:00 pm – 08:58 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Understood Project Proposal

Work Accomplishments: Decided timeline for each task completion, started with Project proposal work

Date: 01/28/2025

Time: 12:00 pm – 01:40 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Work breakdown, Timeline adjustments.

Work Accomplishments: Put everything together whatever all the team members had done for Project proposal.

Date: 01/28/2025

Time: 07:00 pm – 08:56 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Asked all queries related proposal submission

Work Accomplishments: Got done with Project proposal documentation.

Date: 02/04/2025

Time: 12:00 pm – 01:50 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Went through JIRA tool, learnt few features in it to come out with a great outcome for Work breakdown structure.

Work Accomplishments: Broke 5 Major phases in 2-3 Main tasks, those main tasks in sub-tasks and assigned to everyone.

Date: 02/04/2025

Time: 07:00 pm – 08:50 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Decided Dependencies for all tasks, worked on Project Proposal Feedback and changed timelines

Work Accomplishments: Got understanding of Outline plan content and its importance.

Date: 02/11/2025

Time: 12:00 pm – 01:39 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Got an Update about Network Topology, and about Website structure from Diya and Nitisha

Work Accomplishments: Got an understanding with everyone's work progress till now.

Date: 02/11/2025

Time: 07:00 pm – 08:52 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Understood Buildbook structure and its importance, Question-Answer session with professor

Work Accomplishments: A great understanding of Technical Documentation and User guide manual.

Date: 02/18/2025

Time: 12:15 pm – 2:00 pm

Location: School premises

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Got an update on everyone's work and discussed on webpage development back-end work division more thoroughly.

Work Accomplishments: Had a better knowledge on everybody's work followed fulfilled addressed challenges.

Date: 02/28/2025

Time: 06:00 pm – 08:10 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Back-end database setup, security measures for privacy.

Work Accomplishments: Discussed everybody's contribution to the group followed by challenges faced are addressed.

Date: 03/04/2025

Time: 09:00 am – 11:15 am

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Setting up of a well-functioning website, testing functionality with the VMs created, front-end website development thoroughly discussed.

Work Accomplishments: Got a good understanding of front-end webpage structure and security measures to be set up on the webpage are tested.

Date: 03/10/2025

Time: 06:00 pm – 07:20 pm

Location: College Premises

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

Discussion Topic: Discussed about the schema, back-end of the website discussed thoroughly.

Work Accomplishments: Got an update on everyone's work and the database schema set up successfully accomplished.

Date: 03/17/2025

Time: 01:00 pm – 2:50 pm

Location: College Premises

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

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Discussion Topic: Updates on the website, talked about designing and formatting of the website.

Work Accomplishments: Launch the website.

Date: 03/25/2025

Time: 07:00 pm – 9:00 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori

Discussion Topic: Worked on Website and Initiated the group project documentation.

Work Accomplishment: Have access to the fully functional website

Date: 04/01/2025

Time: 07:00 pm – 9:10 pm

Location: Zoom Meeting Room

Members Present: Vidhi Patel, Naincy Patel, Darpankumar Patel, Jaykumar Patel, Nitisha Gori, Diya Neupane

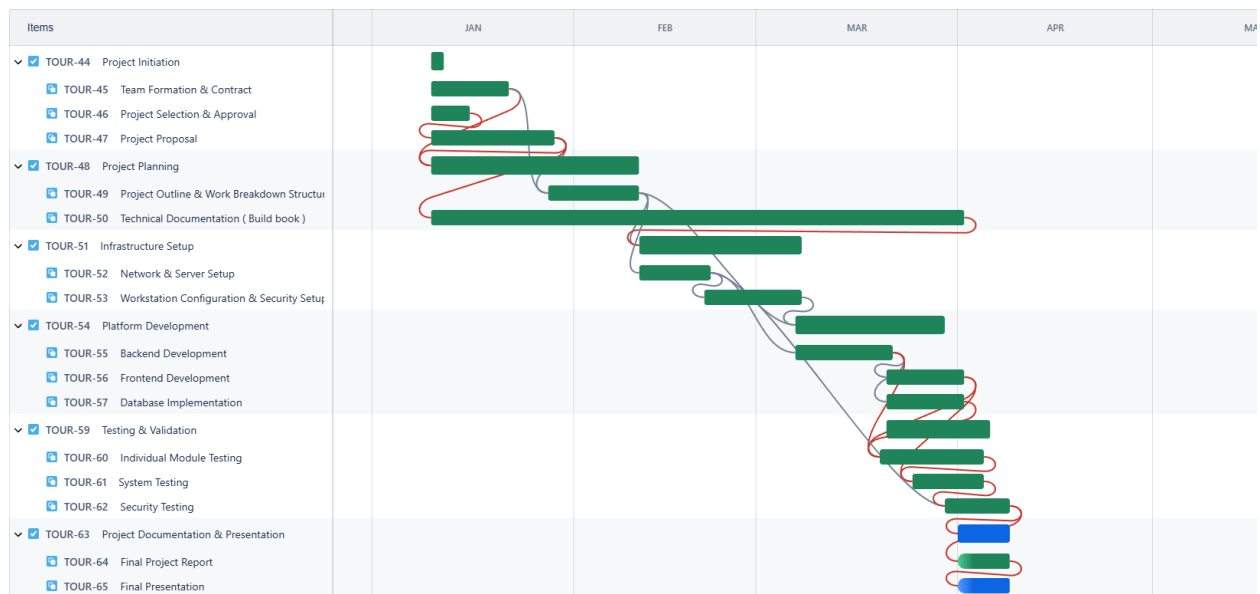
Discussion Topic: Talked about the presentation, who is presenting which part and so on.

Work Accomplishment: Documentation for the project is done.

Next Meeting –04/04/2025 06:00 pm

Location: College Premises

Work Breakdown Structure



GROUP PROJECT REPORT

The screenshot shows a Microsoft Excel spreadsheet with a project schedule. The table has columns for Key, Issue Type, Parent, Summary, Status, Assignee, Start date, and Due date. The data is organized into a hierarchical structure of tasks and sub-tasks.

Key	Issue Type	Parent	Summary	Status	Assignee	Start date	Due date
TOUR-44	Task		Project Initiation	Done		1/10/2025	1/11/2025
TOUR-45	Sub-task	TOUR-44	Team Formation & Contract	Done	Vidhi Patel	1/10/2025	1/21/2025
TOUR-46	Sub-task	TOUR-44	Project Selection & Approval	Done	Vidhi Patel	1/10/2025	1/15/2025
TOUR-47	Sub-task	TOUR-44	Project Proposal	Done	Vidhi Patel	1/10/2025	1/28/2025
TOUR-48	Task		Project Planning	Done	Vidhi Patel	1/10/2025	2/10/2025
TOUR-49	Sub-task	TOUR-48	Project Outline & Work Breakdown Structure	Done	Vidhi Patel	1/28/2025	2/10/2025
TOUR-50	Sub-task	TOUR-48	Technical Documentation (Build book)	Done	Vidhi Patel	1/10/2025	4/1/2025
TOUR-51	Task		Infrastructure Setup	Done	Darpankumar	2/11/2025	3/7/2025
TOUR-52	Sub-task	TOUR-51	Network & Server Setup	Done	Darpankumar	2/11/2025	2/21/2025
TOUR-53	Sub-task	TOUR-51	Workstation Configuration & Security Setup	Done	Darpankumar	2/21/2025	3/7/2025
TOUR-54	Task		Platform Development	Done	Naincy Patel	3/7/2025	3/29/2025
TOUR-55	Sub-task	TOUR-54	Backend Development	Done	Nitisha gori	3/7/2025	3/21/2025
TOUR-56	Sub-task	TOUR-54	Frontend Development	Done	Diya Neupane	3/21/2025	4/1/2025
TOUR-57	Sub-task	TOUR-54	Database Implementation	Done	Jaykumar	3/21/2025	4/1/2025
TOUR-59	Task		Testing & Validation	Done	Naincy Patel	3/21/2025	4/5/2025
TOUR-60	Sub-task	TOUR-59	Individual Module Testing	Done	Naincy Patel	3/20/2025	4/4/2025
TOUR-61	Sub-task	TOUR-59	System Testing	Done	Naincy Patel	3/25/2025	4/4/2025
TOUR-62	Sub-task	TOUR-59	Security Testing	Done	Naincy Patel	3/30/2025	4/8/2025
TOUR-63	Task		Project Documentation & Presentation	In Progress	Vidhi Patel	4/1/2025	4/8/2025
TOUR-64	Sub-task	TOUR-63	Final Project Report	Done	Naincy Patel		4/8/2025
TOUR-65	Sub-task	TOUR-63	Final Presentation	In Progress	Vidhi Patel		4/8/2025

Methodology & Implementation

The project development process used a structured approach based on Software Development Lifecycle (SDLC) principles while implementing Agile project management methodologies. The key implementation steps were:

1. Planning & Research

- Analysis of best practice standards from the tourism management platform industry took place during the planning and research step.

2. System Design

- The team developed architecture that combined cloud computing along with network infrastructure and presented scalability options.

3. Development & Testing

- The team constructed fundamental program capabilities along with security tests and executed stress tests during development and testing stages.

4. Deployment & Maintenance

- Reliable hosting and backup implementation alongside support management systems were established to ensure sustainable operations.

Challenges & Solutions

Development stage brought multiple obstacles to the team who needed to overcome:

1. Network Configuration Issues

- The team solved network configuration problems by performing extensive testing and implementing VLAN segmentation networks.

2. Cybersecurity Concerns

- Organizational cybersecurity needs were satisfied through installment of encryption solutions together with two-factor authentication and intrusion detection systems.

3. Cloud Integration Complexities

- The integration complexities of cloud computing were optimized through deploying hybrid cloud solutions which provide both performance benefits and cost effectiveness.

Key Achievements

- Our team built and launched a complete tourism destination management platform successfully.
- The management system delivered efficient database operations for providing immediate destination updates.
- Integrated scalable cloud infrastructure for future growth.
- Security measures strengthen the platform's existence to prevent cyber threats.

Conclusion

- The Tourism Destination Management Platform Development project successfully achieved its objectives by delivering a secure, scalable, and high-performing solution for managing travel bookings, destination information, and customer interactions.
- Through careful planning, structured execution, and robust security implementation, the platform ensures seamless integration of cloud and on-premises infrastructure while maintaining high availability and data protection.

- The project also demonstrated effective teamwork, problem-solving, and technical expertise in areas such as network configuration, database management, and cybersecurity.
- With a solid foundation in place, this platform is well-positioned for future enhancements to further improve user experience and operational efficiency.