Sri Lanka Institute of Information Technology

Lab Sheet 02
Agile Development

Group ID: 2025-Y2-S1-MLB-WE2G2-07

Student ID	Name
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Software Engineering | SE2030

B.Sc. (Hons) in Information Technology

Topic

Web-based Wild Life Safari Management System

Persona: Park Manager User

Stories:

- As a Park Manager, I want to **view real-time dashboards** so that I can make data-driven decisions on visitor trends, revenue, and resource usage

- As a Park Manager, I want to **oversee system configuration and user access** so that I can maintain centralized control and ensure compliance with conservation regulations

- As a Park Manager, I want to **generate financial and operational reports** so that I can track performance, identify trends, and resolve escalated issues like double-bookings

- As a Park Manager, I want to **adjust pricing and schedules dynamically** so that I can respond to demand and optimize revenue

- As a Park Manager, I want to **access tourist feedback and ratings** so that I can analyze performance and enhance the overall tourist experience

Persona: Booking Officer User

Stories:

- I want to **monitor all reservations and track jeep and guide schedules** so that I can ensure efficient operations and avoid conflicts

- I want to **handle exceptions and assist tourists with complex requests** so that I can ensure all bookings are managed smoothly

- I want to **receive assignment alerts for guides and jeeps** so that I am instantly aware of allocated resources for each booking

- I want to **access information on jeep maintenance status** so that I can ensure vehicles are available and safe for safaris

Persona: Safari Jeep Driver User

Stories:

- I want to **receive a assignments and schedules** so that I   know my daily itineraries and assigned trips

- I want to **report jeep maintenance requirements** so that issues can be tracked, resolved, and ensure vehicle safety and readiness

- I want to **manage my driver profile** so that my information is accurate within the system

- I want to **view the status of my reported maintenance issues** so that I am informed about when the jeep will be ready

Persona: Wild Life Guide User

Stories:

- I want to **receive a assignments and schedules** so that   I   know my daily itineraries and assigned trips

- I want to **manage my guide profile** so that my information is accurate within the system

- I want to **access daily itineraries via notifications** so that I am prepared for my guiding duties

- I want to be **assigned efficiently without conflicts** so that my schedule is optimized

Persona: IT Support Officer User

Stories:

- I want to **maintain system uptime and security** so that the system is reliable and protected   against vulnerabilities

- I want to **troubleshoot technical issues for staff and administrators** so that system operations are uninterrupted

- I want to **track and resolve reported jeep maintenance issues** so that vehicles are back in service quickly

- I want to **implement future upgrades** like mobile apps or payment gateway integrations so that the system evolves

Persona: User / Visitor (Tourist) User

Stories:

- I want to **book safaris online with real-time availability checks** so that I can secure my preferred dates, times, jeeps, and guides securely and avoid overbooking

- I want to **receive instant booking confirmations, reminders, and notifications** via email/SMS so that I am well-informed about my safari

- I want to **provide feedback and rate my safari experience, guides, and jeeps** so that I can contribute to improving service quality

- I want to **create and manage my user profile** so that I can have a personalized experience and easy access to my bookings

- I want to **search for safaris using basic filters** like date, price, or availability so that I can easily find suitable options

Scrum roles

Product owner: Ekanayake K.L.S.T

Scrum Master: Nimesh Gunasekara W.M

Developer 1: Nishshanka N.P.I.M

Developer 2: Abeyawickrama O.T

Developer 3: Moulana S.I.M.S.M

Developer 4: Warushawithanage S.S

Product Backlog

ID	User Story	Priority
US-TR-01	I want to book safaris online with real-time availability checks so that I can secure my preferred dates, times, jeeps, and guides securely and avoid overbooking..	High
US-TR-02	I want to receive instant booking confirmations, reminders, and notifications via email/SMS so that I am well-informed about my safari	High
US-JD-01	I want to receive a assignments and schedules so that I know my daily itineraries and assigned trips.	High
US-WG-01	As a Wild Life Guide, I want to receive a assignments and schedules so that I know my daily itineraries and assigned trips	High
US-PM-01	As a Park Manager, I want to view real-time dashboards so that I can make data-driven decisions on visitor trends, revenue, and resource usage.	High
US-BO-01	As a Booking Officer, I want to monitor all reservations and track jeep and guide schedules so that I can ensure efficient operations and avoid conflicts	High
US-PM-02	As a Park Manager, I want to oversee system configuration and user access so that I can maintain centralized control	High

	and ensure compliance with conservation regulations	
US-PM-03	As a Park Manager, I want to generate financial and operational reports so that I can track performance, identify trends, and resolve escalated issues like double-bookings	High
US-IT-01	As an IT Support Officer, I want to maintain system uptime and security so that the system is reliable and protected against vulnerabilities	High
US-PM-04	As a Park Manager, I want to adjust pricing and schedules dynamically so that I can respond to demand and optimize revenue	Medium
US-BO-02	As a Booking Officer, I want to handle exceptions and assist tourists with complex requests so that I can ensure all bookings are managed smoothly	Medium
US-JD-02	As a Safari Jeep Driver, I want to report jeep maintenance requirements so that issues can be tracked, resolved, and ensure vehicle safety and readiness	Medium
US-IT-03	As an IT Support Officer, I want to track and resolve reported jeep maintenance issues so that vehicles are back in service quickly	Medium
US-TR-04	As a Tourist, I want to create and manage my user profile so that I can have a	Medium

	personalized experience and easy access to my bookings	
US-TR-03	As a Tourist, I want to provide feedback and rate my safari experience, guides, and jeeps so that I can contribute to improving service quality	Medium
US-JD-03	As a Safari Jeep Driver, I want to manage my driver profile so that my information is accurate within the system	Low
US-WG-02	As a Wildlife Guide, I want to manage my guide profile so that my information is accurate within the system	Low
US-IT-02	As an IT Support Officer, I want to troubleshoot technical issues for staff and administrators so that system operations are uninterrupted	Low
US-TR-05	As a Tourist, I want to search for safaris using basic filters like date, price, or availability so that I can easily find suitable options	Low
US-IT-04	As an IT Support Officer, I want to implement future upgrades like mobile apps or payment gateway integrations so that the system evolves	Low

US-PM-05	As a Park Manager, I want to access tourist feedback and ratings so that I can analyze performance and enhance the overall tourist experience	Low
US-BO-03	As a Booking Officer, I want to receive assignment alerts for guides and jeeps so that I am instantly aware of allocated resources for each booking	Low
US-JD-04	As a Safari Jeep Driver, I want to view the status of my reported maintenance issues so that I am informed about when the jeep will be ready	Low
US-WG-04	As a Wild Life Guide, I want to be assigned efficiently without conflicts so that my schedule is optimized	Low
US-BO-04	As a Booking Officer, I want to access information on jeep maintenance status so that I can ensure vehicles are available and safe for safaris	Low
US-WG-03	As a Wild Life Guide, I want to access daily itineraries via notifications so that I am prepared for my guiding duties	Low

Sprint Planning

1st Sprint (Week 3 to Week 5)
Planning & Foundational Development

Sprint ID	User Story	Priority
SP1-01	As a Park Manager, I want to oversee system configuration and user access	High
SP1-02	As an IT Support Officer, I want to maintain system uptime and security	High
SP1-03	As a Tourist, I want to create and manage my user profile	Medium
SP1-04	As a Safari Jeep Driver, I want to manage my driver profile	Low
SP1-05	As a Wild Life Guide, I want to manage my guide profile	Low
SP1-06	As a Tourist, I want to search for safaris using basic filters	Low

2nd Sprint (Week 6 to Week 8)
Core Booking & Assignment Development

Sprint ID	User Story	Priority
SP2-01	As a Tourist, I want to book safaris online with real-time availability checks	High
SP2-02	As a Safari Jeep Driver, I want to receive a assignments and schedules	High
SP2-03	As a Wild Life Guide, I want to receive a assignments and schedules	High
SP2-04	As a Booking Officer, I want to monitor all reservations and track jeep and guide schedules	High
SP2-05	As a Wild Life Guide, I want to be assigned efficiently without conflicts	Low

3rd Sprint (Week 9 to Week 11)
Notifications, Reporting & Maintenance

Sprint ID	User Story	Priority
SP3-01	As a Tourist, I want to receive instant booking confirmations, reminders, and notifications	High
SP3-02	As a Tourist, I want to receive instant booking confirmations, reminders, and notifications	High
SP3-03	As a Park Manager, I want to generate financial and operational reports	High
SP3-04	As a Safari Jeep Driver, I want to report jeep maintenance requirements.	High
SP3-05	As an IT Support Officer, I want to track and resolve reported jeep maintenance issues	High
SP3-06	As a Park Manager, I want to adjust pricing and schedules dynamically	Medium
SP3-07	As a Booking Officer, I want to receive assignment alerts for guides and jeeps	Low
SP3-08	As a Safari Jeep Driver, I want to view the status of my reported maintenance issues	Low

Sprint ID	User Story	Priority
SP3-09	As a Wild Life Guide, I want to access daily itineraries via notifications	Low
SP3-10	As a Booking Officer, I want to access information on jeep maintenance status	Low

4th Sprint (Week 12 to Week 14)
Deployment & Post-Launch Refinement

Sprint ID	User Story	Priority
SP4-01	As a Booking Officer, I want to handle exceptions and assist tourists with complex requests	Medium
SP4-02	As a Tourist, I want to provide feedback and rate my safari experience, guides, and jeeps	Medium
SP4-03	As an IT Support Officer, I want to troubleshoot technical issues for staff and administrators	Low
SP4-04	As an IT Support Officer, I want to implement future upgrades	Low
SP4-05	As a Park Manager, I want to access tourist feedback and ratings	Low

1ˢᵗ Sprint Backlog

User Story ID	Task Description	Assigned To	Effort (Hours)
SP1-01	Design User Roles and Permissions in the Database Schema	Nishshanka N.P.I.M	8
	Develop Admin UI for User Management	Abeyawickrama O.T	16
	Implement Backend Logic for Role-Based Access Control	Moulana S.I.M.S.M	12
SP1-02	Set Up Project Environment and Database	Warushawithanage S.S	8
	Implement Secure User Authentication	Nishshanka N.P.I.M	14
SP1-03	Design and Develop User Registration Page UI (Tourist Profile Creation)	Abeyawickrama O.T	8
	Create API for User Registration and Profile Management	Moulana S.I.M.S.M	12
	Develop Tourist Profile Page to View/Edit Information	Abeyawickrama O.T	10
SP1-04	Extend User Profile Model to Include Driver-Specific Fields	Warushawithanage S.S	6

User Story ID	Task Description	Assigned To	Effort (Hours)
SP1-05	Extend User Profile Model to Include Guide-Specific Fields	Warushawithanage S.S	6
SP1-06	Design the UI for Safari Search & Filters	Nishshanka N.P.I.M	8
	Develop Backend API for Basic Safari Search by Date/Price	Moulana S.I.M.S.M	12

2nd Sprint Backlog

User Story ID	Task Description	Assigned To	Effort (Hours)
SP2-01	Design the Safari Booking Interface	Abeyawickrama O.T	12
	Develop API to Check Real-Time Availability of Jeeps and Guides	Moulana S.I.M.S.M	16
	Implement Backend Logic to Create and Store a New Booking	Warushawithanage S.S	14
SP2-02	Design UI for Drivers to View Their Daily/Weekly Schedule	Nishshanka N.P.I.M	8
SP2-03	Design UI for Guides to View Their Daily/Weekly Schedule	Abeyawickrama O.T	8

SP2-04	Develop Admin Dashboard for Monitoring All Reservations	Nishshanka N.P.I.M	12
	Create API to Fetch All Jeep and Guide Schedules for the Admin View	Moulana S.I.M.S.M	20
SP2-05	Develop the Algorithm for Smart Assignment of Guides and Jeeps	Warushawithanage S.S	20
	Integrate Assignment Algorithm into the Booking Creation Process	Warushawithanage S.S	8

3rd Sprint Backlog

User Story ID	Task Description	Assigned To	Effort(Hours)
SP3-01 **SP3-02**	Integrate a Third-Party Email Service Integrate a Third-Party Email Service	Warushawithanage S.S Abeyawickrama O.T	10 8
SP3-03	Design the Financial and Operational Reporting Dashboard UI Develop APIs to Aggregate and Generate Visitor and Revenue Data	Nishshanka N.P.I.M Moulana S.I.M.S.M	10 16
SP3-04	Design and Develop UI for Drivers to Submit Maintenance Requests	Abeyawickrama O.T	8
SP3-05	Develop Maintenance Tracking Dashboard for IT/Admin Implement API to Create, Update, and View Maintenance Tickets	Nishshanka N.P.I.M Warushawithanage S.S	14 12

User Story ID	Task Description	Assigned To	Effort (Hours)
SP3-06	Implement UI for Park Manager to Adjust Safari Pricing and Schedules	Abeyawickrama O.T	12
SP3-07 to SP3-10	Extend Notification System for Staff Assignments & Maintenance Status.	Moulana S.I.M.S.M	10
	Link Maintenance Status to Booking Officer's Dashboard	Nishshanka N.P.I.M	8

4th Sprint Backlog

User Story ID	Task Description	Assigned To	Effort (Hours)
SP4-01	Implement Functionality for Booking Officers to Manually Edit/Cancel Bookings	Nishshanka N.P.I.M	14

SP4-02	Design and Develop UI for Tourists to Submit Feedback and Ratings Create API to Store Feedback and Rating Data	Abeyawickrama O.T Moulana S.I.M.S.M	10 10
SP4-03	Perform End-to-End System Testing and Bug Fixing Prepare and Finalize System for Pilot Deployment	All Developers Warushawithanage S.S	20 16
SP4-04	Research and Document Integration Plan for a Local Payment Gateway	Warushawithanage S.S	10
SP4-05	Develop UI on Admin Dashboard to	Nishshanka N.P.I.M	12

	View and Analyze Tourist Feedback		
	Create System Documentation and User Manuals	Abeyawickrama O.T	8