

Semester 3rd | Practical Assignment | Project Management Tools (2305CS322)

Date: 24 /07 /2025

Lab Practical Extra:

The Comprehensive HRMS Software is a multi-platform solution (web, desktop, mobile) for payroll processing and employee management, with integrations for accounting and time-tracking systems. It streamlines HR tasks like pays lip generation, attendance tracking, and employee data management across devices.

Practical Assignment:

Objective: To understand and create a Project Charter and an initial Project Plan, incorporating key aspects such as stakeholder needs, project phases, and strategic planning.

Description:

Lab Exercise 1: Developing a Project Charter and Project Plan

Objective:

To develops a secure, multi-platform HRMS (Human Resource Management System) that automates payroll processing, centralizes employee management, and integrates with third-party tools (accounting/time-tracking), improving HR efficiency and user experience across web, desktop, and mobile platforms

Instructions:

1. Develop a Project Charter:

Create a Project Charter document that includes:

- o **Project Title:** Comprehensive HRMS Software Development
- **Project Purpose/Justification:**

To develop a multi-platform HRMS (Human Resource Management System) with payroll and employee management modules, streamlining HR operations for businesses.

High-Level Project Description:

The project involves designing, developing, and deploying an HRMS solution for web, desktop, and mobile platforms, integrating payroll processing, employee records, and third-party system compatibility (e.g., accounting software).

Objectives and Success Criteria:

Deliver a fully functional HRMS with payroll and employee management modules.

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- Ensure cross-platform compatibility (web/desktop/mobile).
- Achieve seamless integration with accounting/time-tracking systems.
- Meet user acceptance testing (UAT) benchmarks

Assumptions and Constraints:

- Assumes access to development tools (e.g., React, .NET, Flutter).
- Constraints: Budget limits, 12-month timeline, dependency on third-party APIs.

Stakeholders:

- Project Sponsor (HR Director)
- Development Team (Developers, UI/UX Designers)
- End-users (HR Staff, Employees)
- Automotive Partners (Accounting Software Vendors)
- Project Manager Assigned: Nikhil Rathod
- **Authorization:**

signature-				

2. Project Planning:

Develop an initial Project Plan outline that includes:

- **Project Phases:**
 - Requirement Analysis: Gather HR process workflows
 - UI/UX Design: Wireframes for all platforms
 - Application Development (React.js,.NET,Flutter)
 - API development for accounting/time-tracking
 - Testing & Debugging
 - Deployment

Major Deliverables:

- SRS Document
- UI Mockups (Figma)
- Modular Codebase
- Test Reports
- **Deployment Packages**

Timeline:

- Gantt chart (12 months total):
- Planning (1 month)
- Development (7 months)
- Testing (2 months)
- Deployment (2 months)

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Resource Requirements:

- Tools: Figma, GitHub, Jira, AWS
- Team: 5 Developers, 2 QA Engineers, 1 UI/UX Designer

Risk Management:

- Risks: Integration failures, platform-specific bugs.
- Mitigation: Agile sprints, API sandbox testing.

3. Documentation:

Compile all documents into a single file for submission.

Deliverables:

- Completed Project Charter
- Initial Project Plan outline
- Timeline in Excel or project management software

Lab Exercise 2: Stakeholder Analysis and Project Life Cycle Mapping

Objective:

To perform a detailed stakeholder analysis and map out the project life cycle for Android Automotive App Development.

Instructions:

1. Stakeholder Identification:

- o Initiation: Define HRMS scope, select platforms.
- Planning: Create charter, finalize tech stack.
- Execution: Develop modules, integrate APIs.
- Monitoring: Test across platforms, optimize performance.
- Closing: Deploy, conduct training, review.

2. Stakeholder Analysis:

Create a Stakeholder Analysis Matrix:

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Stakeholder Name	Role/Position	Interests/Concerns	Impact Level	Influence Level	Engagement Strategy
HR Director	Sponsor	Budget, ROI	High	High	Biweekly steering meetings
Developers	Internal Team	Technical feasibility	High	Medium	Daily stand- ups, sprint reviews
Accounting Vendor	External Partner	API compatibility	Medium	Medium	Technical workshops
HR Staff	End-User	Ease of use, reporting features	High	Low	Beta testing, feedback surveys
Employees	End-User	Self-service portal	Medium	Low	UX prototyping sessions

3. Project Life Cycle Mapping:

Stages & Key Activities:

- Initiation: Define HRMS scope, select platform
- **Planning:** Create charter, finalize tech stack.
- **Execution:** Develop modules, integrate APIs
- Monitoring & Controlling: Test across platforms, optimize performance
- Closing: Deploy, conduct training, review.

Influence of Stakeholders:

HR Director prioritizes payroll accuracy

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- Employees influence self-service features
- Vendors dictate API constraints

4. Documentation:

Deliverables:

- Stakeholder Analysis Matrix
- Life Cycle Mapping Diagram
- Summary Report

Lab Exercise 3: Project Selection Methods and Developing a Project Scope Statement

Objective:

Deliver a secure, multi-platform HRMS with payroll, employee management, and thirdparty integrations.

Instructions:

1. Project Selection Methods Summary:

Method	Advantages	Disadvantages
Cost-Benefit Analysis	Financial clarity, informed decision-making	May overlook qualitative factors
Scoring Models	Considers multiple criteria	Requires subjective weighting
Payback Period	Easy to calculate, focuses on ROI timeline	Ignores long-term strategic benefits

2. Project Selection Exercise:

Chosen Method: Scoring Model

Rationale: Suitable for evaluating technical, financial, and user-experience

aspects.

Based on criteria scores, the Android Automotive App project is selected due to its high potential for real-world impact and technical feasibility.

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3. Project Scope Statement:

• Project Objective:

To develop and deploy a user-friendly Android Automotive Application for invehicle use, compliant with Google's guidelines.

Scope Description:

Design and implement core features such as:

- Media Control
- Navigation Integration
- Voice Command Support
- Optimized UI for car displays

• Project Exclusions:

- Non-Automotive Android app compatibility
- Hardware-level vehicle integrations

Acceptance Criteria:

- App passes compatibility tests on Automotive Emulator
- Meets all functional requirements
- Positive feedback from initial user testing

Assumptions and Constraints:

- Google Automotive guidelines remain stable
- Development within semester timeline
- Limited access to real vehicle hardware

4. Documentation:

Compile the comparison table, project selection rationale, and scope statement into a final report.

Deliverables:

- Project Selection Comparison Table
- Selection Rationale
- Detailed Project Scope Statement
- Final Report