**Detailed Project Management Plan**

**1. Project Scope Management**

**1.1 Scope Statement**

* Full description of project deliverables (functional and non-functional requirements).
* Inclusions and exclusions.
* Boundaries and constraints.

**1.2 Work Breakdown Structure (WBS)**

* Hierarchical decomposition of project deliverables into manageable work packages.
* E.g.: Requirements, Design, Development, Testing, Deployment, Training.

**1.3 Scope Change Control Process**

* How scope changes will be requested, reviewed, approved, and tracked.

**2. Schedule Management**

**2.1 Schedule Development**

* Detailed Gantt chart with tasks, dependencies, milestones.
* Use MS Project or similar tool.

**2.2 Milestones**

* Requirements complete
* Design approved
* Development complete
* UAT complete
* Go-live

**2.3 Schedule Control**

* Monitoring progress, updating the schedule, managing delays.

**3. Cost Management**

**3.1 Budget Estimation**

* Breakdown of costs (personnel, software licenses, hardware, third-party services).

**3.2 Cost Baseline**

* Approved budget against which actual costs are measured.

**3.3 Cost Control**

* Tracking expenses, managing cost overruns, reporting.

**4. Quality Management**

**4.1 Quality Objectives**

* Define quality standards for deliverables.

**4.2 Quality Assurance**

* Processes to ensure quality during development.

**4.3 Quality Control**

* Testing, reviews, audits, and defect tracking.

**5. Resource Management**

**5.1 Human Resources Plan**

* Roles and responsibilities matrix (RACI).
* Team structure and resource allocation.

**5.2 Physical Resources**

* Software tools, infrastructure needed.

**5.3 Resource Acquisition**

* Hiring plan or third-party contracts.

**6. Communication Management**

**6.1 Communication Plan**

* Stakeholder communication requirements.
* Meeting schedules, reporting formats, channels (email, dashboards).

**6.2 Stakeholder Engagement**

* Methods to engage stakeholders, manage expectations.

**7. Risk Management**

**7.1 Risk Identification**

* Known project risks.

**7.2 Risk Analysis**

* Qualitative and quantitative analysis.

**7.3 Risk Response Planning**

* Mitigation, contingency, acceptance strategies.

**7.4 Risk Monitoring and Control**

* Risk register updates.

**8. Procurement Management**

**8.1 Procurement Plan**

* Identification of what will be procured externally.

**8.2 Vendor Selection**

* Criteria and process for selecting vendors (APIs, cloud services).

**8.3 Contract Management**

* Tracking vendor performance and contracts.

**9. Stakeholder Management**

**9.1 Stakeholder Identification**

* List and analyze stakeholders.

**9.2 Stakeholder Engagement Plan**

* Communication and involvement strategies.

**10. Change Management**

**10.1 Change Control Process**

* How change requests are submitted, reviewed, approved, implemented.

**10.2 Change Log**

* Tracking of changes and their impact.

**11. Project Monitoring and Control**

**11.1 Performance Measurement**

* KPIs, Earned Value Management (EVM).

**11.2 Reporting**

* Status reports, dashboards.

**11.3 Issue and Risk Management**

* Ongoing tracking and resolution.

**12. Project Closure**

**12.1 Closure Criteria**

* Completion of deliverables, acceptance.

**12.2 Lessons Learned**

* Documenting successes and areas for improvement.

**12.3 Final Report**

* Summary of the project outcomes.