Project Planning Guidelines

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Revision History

Version	Date	Prepared by / Modified by	Change Summary	Approved By	Approved On
1.0	May 01, 2017	Sridhar	First Draft Made	Anitha T G	May 15, 2017

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1. Introduction

This Project Plan describes what work the project will do, what results will be achieved, and how project work will be executed and managed. It describes team roles and responsibilities and deliverables. It identifies assumptions, constraints, dependencies, risks, and issues, stakeholders and links to all other plans. Also documents any tailoring requirements for the project.

2. Project Overview

Here in this section the project manager will provide the basic details of the project including

- Project Start Date
- Project End Date
- Duration of the project – person days / months
- Execution model – select the life cycle models of the project from agile/waterfall/services etc.,
- Project Type – either the project is of complete development or maintenance or service
- Estimated efforts – This information comes from the sprint backlog, in case this is not available please mention the capacity available for the project and add a note.
- Estimated Size – Mention the size of the project either Story Points, KLOC or any other method used
- Peak Team size – Mention the peak team size of the project
- Project Domain – Mention the domain of the project
- Technologies – Mention the technologies being used, if there are many technologies used please mention the top ones mostly used in the project
- Scrum Master – Provide the name of the scrum master for this project

3. Scope

- This section summarizes the scope of the project by providing a list of functionalities, key activities and deliverables.
- Scrum master has to elaborate the bullets provided the in the template, this will ensure that the entire boundaries of the project are adequately covered.
- Ensure that out of scope should also be mentioned if anything specifically agreed with the customer for example, configuring new software may be in scope, but training staff on new software may be out of scope because the vendor/customer is providing this service.
- Be consistent with the “Scope” section within the project plan and also with other relevant documents like SOW, Contract etc.,
- Ensure that all work in scope supports the project goal, objectives, and outcomes.
- Begin each entry in the template with a verb or “action word.”

- Scope section includes the details that were explicitly mentioned in the section and also few of the scope related sections are spread across the project management plan for example Release Plans, Acceptance Criteria etc.,

4. Team Charter

- This section contains the results of human resource planning activities completed to support the execution of this project including the roles and responsibilities of the project team.
- Start and finish dates for resources must be consistent with the project schedule.
- The table contains the following columns
  - Role – Mention the role of the team member. Roles include Delivery Manager, Scrum Master, Team Members.
  - Responsibilities – Mention the high levels responsibilities of each role
  - Member – Mention the names of the resources
  - Skills Expected – Mention the critical skills expected by the team for example one of the team members need to have Technology Skills (Java), Database Skill (SQL), Tools (Selenium) etc.,
- Below table summarizes the common roles and responsibilities for the generic roles, the scrum master can use these details and update as applicable for the project in their project management plan.

Role	Responsibilities	Skills Expected
Delivery Manage	▪ Reviewing the Project Status ▪ Monthly Review of the Project ▪ Interacting with Product Owner	▪ Project Management
Scrum Master	▪ Monitoring the status and team activities. ▪ Planning with product owner ▪ Mentoring the team on the processes ▪ Removing the roadblocks ▪ Mentors the team on Agile Practices	▪ Project Management ▪ Agile Methodology ▪ Red-mine tool Usage ▪ Domain knowledge
Project Lead	▪ Planning the sprint and release schedules ▪ Allocating tickets to the team. ▪ Review the deliverable ▪ Servers Maintenance/Production updates ▪ Release Management ▪ Research on new technologies/performance optimizations. ▪ Root Cause Analysis ▪ Testing as required. ▪ Monitoring the tomcat logs, cron logs and slow query logs.	▪ Planning and Estimation ▪ Java (JSP & Servlets) ▪ Writing batch scripts ▪ Windows scheduling ▪ Familiar with Tomcat ▪ MySQL installation
Team Member	▪ Review the deliverable ▪ Deploying the patch on production. ▪ Update the tickets in Netsuite tool ▪ Addressing 911/411 issues.	▪ Java (JSP & Servlets), ▪ MySQL ▪ Writing batch scripts ▪ Windows scheduling

	▪ Performance Optimizations. ▪ Coding and Testing ▪ Monitoring the tomcat logs, cron logs and slow query logs. ▪ Pulse applications email monitoring	

5. External Stakeholders

Here in this section the scrum master has to identify the external stakeholders of the project including the people from the customer side who are involved into this project. Also include any third-party vendors and SMEs who will be supporting this project.

Commonly referred external stakeholders' details are provided in the table below, the scrum master can update and use these details in their project management plan as applicable.

Role	Responsibilities
Product Owner	▪ Provides the initial product backlog ▪ Establishes the vision for the product ▪ Ensures the prioritization of user stories ▪ Accepts the delivered and user stories ▪ Provides any clarifications

6. Project Environment

Here in this section mention the technical environment of the project, if there are multiple environments please copy the table and update as relevant to the project. Project Technical Environment includes

- Hardware
- Software
- Servers
- Operating System
- Database
- Tools and IDE
- Any other project specific requirements

Different environments that are possible includes

- Development Environment – Used by the developers
- Testing Environment – Used by the Testers
- Production Environment – Used by the customers
- Staging Environment – Before moving to production the application can be tested in staging environment

Scrum master will plan the environments based on the project requirements and update in the project management plan.

7. Hardware and Software Resource Plan

Here in this section the project required hardware and software resources are to be elaborated including the exact specifications. Also mention by when and how much quantity is required and also who should be providing this meaning is it to be internally acquired or the customer will be providing the required resources.

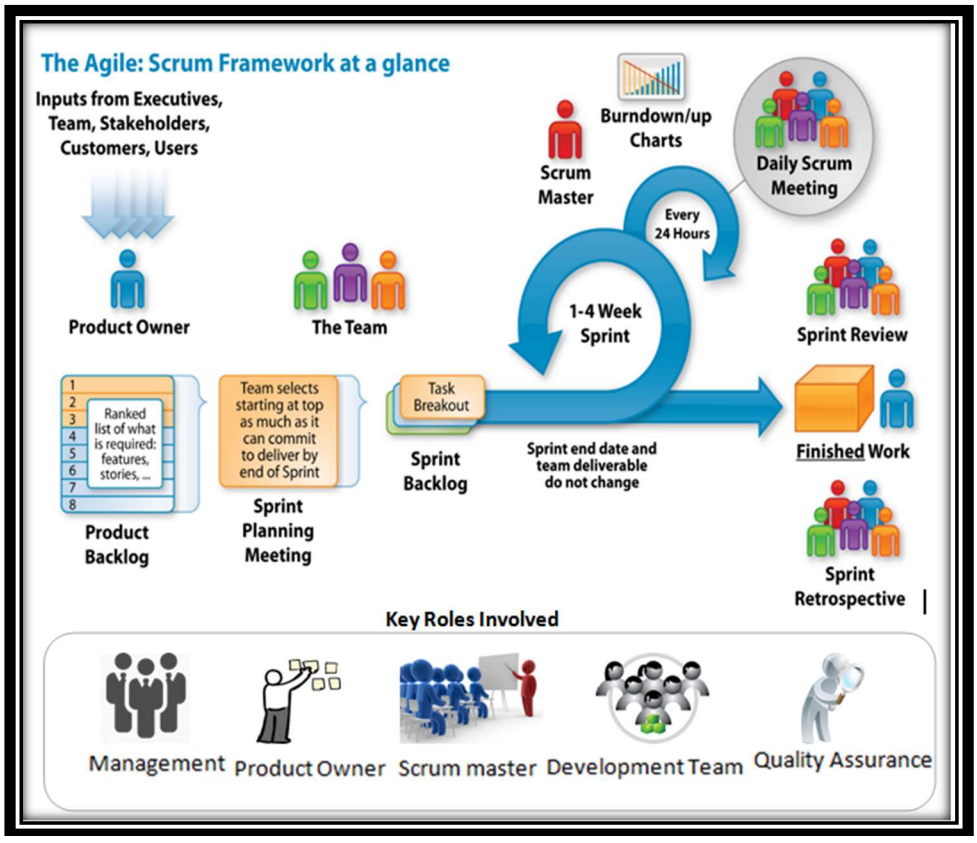
In case the required hardware/software is not available then it need to be procured in that case please consider the budget/cost for this while doing cost estimation. Also consider the lead time the vendor will take to provide the required hardware/software while committing the project or release deadlines.

The project may use formal decision analysis while doing the vendor selection or tool selection to ensure that the best vendor/tool is selected to meet the project objectives.

8. Project Life Cycle

This section contains the project life cycle in detail including the phase, tasks and deliverables. The project may refer to the agile methodology guidelines available in the ePAL while defining the life cycle for the project.

General SCRUM process is mentioned below, the scrum master can refer this and modify as required for the project based on the scope and environment.



- **Product Backlog –** Prioritized product backlog is created and maintained for upcoming releases/sprints. Stories are reviewed to ensure that they are clear and adequately defined without any conflict. Spikes and Epics are classified so that the appropriate strategy can be applied before execution. Various requirements elicitation techniques like story writing workshops, brainstorming, prototypes, wire-frames etc. can be exercised.
- **Estimation -** This process ensures sizing of user stories into story point and further estimation in efforts. Estimations can be done using Planning Poker and updated in product backlog. Efforts are updated in sprint backlog.
- **Release Planning –** Release plan is created while preparing the project management plan. The release plan contains the number and date of release, what functionality to be delivered during each release, Acceptance criteria for the release. If available the numbers of sprints that gets into each release.
- **Sprint Planning –** At the start of the sprint the team with the product owner will identify the user stories that are part of the sprint. Identify the tasks for each user story and confirm the user stories hat can be delivered considering the velocity of the team. Velocity is termed as the actual user stories delivered within the same duration of sprint with the same resource count.
- **Daily Stand-up** – This meeting happens every day for 15 minutes at the same time where each team members will answer the following three questions
  - What is been accomplished since last meeting?
  - What is planned before next meeting?
  - Are there any impediments?
- **Sprint Management –**This Process describes set of activities carried out during sprint planning, sprint execution, sprint review and retrospection.
- **Sprint Execution –** Story requirements are converted into working code/software. Agile coding practices shall be elaborated in this process. Explicit emphasis on automation of code reviews, tests and continuous integration shall be made in this process.
- **Sprint Review / Demo –** At the end of the sprints the team will demo the application developed to the product owner to get his feedback. Product owner will provide the feedback to the team and the team will address the feedback as appropriate. Any new additions or changes will be included to the product backlog for re prioritization during the sprints planning meetings.
- **Sprint Retrospective –** After the sprint review the team will sit and analyze the opportunities for improvement. The team will answer the following questions
  - What went right?
  - What could have been improved?

9. Tools

This section is to be updated with the tools used within the project. The tools could be for requirements, design, coding, testing or project management.

The scrum master should identify the tools used in each of the above phases and also mention the reason for using the tool. In case the tool is not available then the scrum master has to plan when this tool is required based on the project needs.

10. Dependencies, Assumptions and Constraints:

List out the assumptions, constraints and dependencies in a project that needs to be adequately planned and managed to avoid any impact on the project outcomes.

Assumptions are events that are expected to occur during a project's life cycle, often without any proof. They are accepted as truths at the start of a project, though they can turn out to be false.

Constraints are restrictions or boundaries placed upon the project that limit the choices of the project team.

Dependency describes a relationship between two tasks in which one task depends on the finish of another task in order to begin. Dependencies can be created between two or more tasks, tasks and tasks groups.

Example assumptions

- The Sponsor will be available for weekly status meetings and approvals.
- Sub-Contractors with the appropriate levels of skill and experience will be available to support delivery.

Example constraints

- The project must be completed in four months.
- The final deliverables must adhere to international standards of performance and safety.
- The Project Manager will use the CMMI Framework.

Example Dependencies

- The production environment setup is to be provided by the client before starting the testing
- Tool is to be procured by the customer before deploying the application

In this section mention any of the three (Dependency, Constraint or Assumption), and also mention the source for this line item in the project management plan.

The identified dependencies, assumptions and constraints need to be tracked in the project work book with appropriate monitoring and actions.

11. Training Plan

List out the trainings required by the project teams considering the skill required and skills available. The trainings could be obtained through self-learning, online or through class room sessions. The scrum master has to plan the trainings based on the project needs.

Track these trainings in the training tracker sheet of the project workbook.

12. Project Monitoring

This section talks about all the monitoring activities within the project.

Refer to project monitoring guidelines for more details on this.

13. Risk Management Plan

This section talks about all the risk management activities within the project.

Refer to risk management guidelines for more details on this.

14. Verification and Validation Plan

In this section the scrum master has to plan the verification and validation activities to be performed within the project to ensure that the deliveries are defect free. Delivery could be a requirement, design or code.

- **Verification:** The activities that ensures that the delivery meets the requirements specifications.
- **Validation:** The activities that ensures that the delivery meets the intended use of the customer.

Sample Verification Activities

- Requirements Review
- Design Review
- Code Review
- Unit Testing
- Integration Testing
- QA/System Testing (But not in the same environment as of customer)

Sample Validation Activities

- Prototype
- Wireframes
- Customer Presentations
- Customer Sign off
- QA/System Testing (Same environment as of customer)
- User Acceptance Testing

- Regression Testing

The scrum master should plan the verification and validation activities of the deliverables (Internal or external) for all the phases of the project.

Also mentions the acceptance criteria which have to be met before the deliverables is accepted.

Few of the deliverables that has to be planned for verification and validation includes:

- Project Management Plan
- Product Backlog
- Sprint Backlog
- Prototype
- Design Document
- Code
- Build
- User Manual
- Test Cases/Plan

15. Release Plan

In this section the scrum master has to plan the release that the team had agreed with the product owner. Each release is to be supported with the number of sprints / sprint IDs.

The project work book has the table that contains the Release plan and mapping with the sprints. Each release shall have agreed acceptance criteria with the product owner.

16. Configuration Management Plan

This section will have the elements related to configuration management plan. Refer to configuration management guidelines for more details on this.

17. Tailoring

Here in this section the project can mentions the tailoring the project is considering with a justifiable reason. The tailoring has to be reviewed by both Delivery Manager as well as the Quality Manager.

Scrum master can go through the tailoring guidelines and take the appropriate tailoring considering the project needs.

The tailoring can be for a procedure, template, format or any other activities within the project.

18. Stakeholders

The section on Escalation and Communication needs to be defined considering different stakeholders in the project.

A stakeholder is a person with an interest in or influence over project work and results.

Examples of key stakeholders are as follows.

- Decision-makers: People with authority and decision-making power over the project.
- Influencers: People who influence and advise decision-makers.
- End users: People who will use the end product of the project.
- Project team

For escalations the scrum master has to identify

- Issue or Category
- Condition or Threshold - Trigger for escalation i.e., what should be the condition on which the escalation should be triggered
- Whom should be escalated
- The project can define multiple levels of escalation like level 1 and if level 1 is not able to resolve then escalation to level 2.

For communication the scrum master has to identify

- Stakeholder – The entity/role to whom the status is to be communicated
- Vehicle / Medium – How the communication happens
  - Formal status report
  - Meeting
  - E-mail
  - Over phone etc.,
- Frequency – How often these communications should happen
- Communicators – the names/email ids of the persons.

19. Objectives and Metrics

- This section lists one project goal and the project objectives. The project goal is a clear, concise statement of the project's purpose and desired results.
- Metrics have to be closely aligned with the objectives of the project. The metrics program that will be described in this plan.
- After figuring out "what" to measure, one needs to determine "how" to measure it. This is dictated by the usage of management tools at the organizational/project level.
- These metrics will help the scrum master to manage the project effectively and efficiently.

Refer to the measurement framework and measurement guidelines available in the quality management system for more details.

The scrum master can define any other metrics required based on the customer needs can be defined in the project management plan and customize the respective tools and template to capture and report the project specific metrics.

All the metrics are reported and analyzed in the metrics analysis report.

20. Internal Audits

The scrum master will align the project plan with the internal audits planned at the organization level by the OPG team.

21. Metrics Data and Analysis

This section the scrum master will plan the data requirements and data sources used by the project to capture the required data elements.

Also talks about the analysis that needs to be done on the metrics using the metrics analysis report. For more details refer to metrics analysis guidelines.

22. Decision Analysis and Resolution

This section the scrum master will plan for any critical decisions required by the project. The critical decisions has to be supported with detailed analysis quantitative/qualitative and with appropriate approvals.

Decision analysis includes

- Alternatives
- Criteria for evaluation
- Weightage
- Evaluation as per the weightage
- Scoring for each alternative
- Selected solution