Software Engineering Manager Assignment: Najib Radzuan

**Project Delivery Steps:**

Step 1: **Requirements Gathering** - Know what you are building

This step is crucial to understanding what the stakeholders are trying to achieve and provides an opportunity for the team to add value with innovation and expertise. So, start strong, with documented business requirements and functional specifications. User input is important to determine the Use Cases scenario and output.

**Target Man-day**: 1 Day @ 2 Days

**Action by**: Project Manager, Technical Architect/Business Analyst, Stakeholder.

## Goal: Finalised User Requirement, streamline all User Goals/Storylines for the product & get rid of ambiguities

## Step 2: User Acceptance Criteria - Define Success

The key to stakeholder satisfaction is delivering what they expect. But if the project team doesn’t know what stakeholders are expecting, how can they deliver? Step 2 is all about defining the user acceptance criteria. What is the purpose of the project/product? How can it be measured? What result should this project/product and all of its features and components provide? Work with the stakeholders to answer these questions and the team will be well on way to a successful project delivery.

**Target Man-day**: 1 Day

**Action by**: Project Manager, Technical Architect/Business Analyst, Stakeholder.

**Goal**: Finalised User Acceptance Criteria and the team able to come out with User Acceptance Test (UAT) script.

Step 3: **Create a Team** - Assemble your Rockstar Team

Careful resource matching is crucial because you want to build your team based on the skills required to get the job done well. **First**, create a skills matrix to identify the skills and experience this project will require. **Second**, work with your resource manager to get the people you need on your project. **Third**, identify any gaps, and mitigate with training, or looking beyond your organization for contractors to fill the gaps (assuming your project contract allows). **Lastly**, don’t be afraid to mix junior, intermediate, and senior level resources, because you never know what naturally occurring two-way mentorship bonds can be formed.

Key Role & Responsibilities in the following table;

|  |  |
| --- | --- |
| **Key Function Group** | **Key Roles & Responsibilities** |
| **Project Management** | To monitor and track the project implementation by ensuring all key milestones are achieved within the agreed timeline during the entire Project Development Life Cycle period and provide timely communications of project activities and progress to stakeholder. |
| **Change Management** | To develop short and long-term change management plan to ensure effective  adoption and rollout of software service/product. |
| **Business/System Requirement Study** | To conduct business requirement study (functional and non-functional requirements) to gather, analyse and consolidate the business and system requirements from the relevant department, business units and the project team and develop the detailed User Requirement Specifications (URS) for Software Service/Product. |
| **System Development** | To perform system architecture design which includes mapping of data flow, entity relationship, application overall logic flow, database schema, data dictionary, etc. based on agreed requirements as outlined in the URS. |
| **System Integration** | To perform system integration works with identified related to the Software/Service. |
| **Quality Assurance** | To perform detailed unit and system testing for all modules to ensure its compliancy to the agreed requirements outlined in the SRS. The QA team will make sure that the system processes, functions, features, navigation and logic are working and behaving as expected and is designed as per the specifications. |
| **Project Documentation** | To prepare/develop relevant technical or non-technical project documentation such as testing plan, test cases, standard operating procedures, user manual, training manual, minutes of meeting, etc. |
| **Knowledge and Technology Transfer** | To conduct comprehensive training to the end users, internal IT support team and appointed system administrator. |
| **User Acceptance Test (UAT)** | To facilitate and conduct UAT with project owner of the software service/product. |
| **System Development** | To install the software service/product and perform relevant system  configuration works at identified production servers at stakeholder’s data centre/private cloud |
| **Support & Maintenance** | To provide on-going system support and maintenance services for the system over specific(agreed) period, post system go-live date. |

**Target Man-day**: 1 Day

**Action by**: Project Manager, Resource Manager.

**Goal**: Finalised Technical Team member.

## Step 4: Hold a Kick-off & Retrospectives

Kick-offs are great. You gather all of the excellent people from Steps 1, 2, and 3, along with the key stakeholders, and make introductions. Make sure you go over housekeeping items (communication methods, upcoming holidays, & etc.), review the requirements, work plan, and schedule, and identify any issues that need to be resolved.

During Steps 1, 2, and 3, many conversations may get lost in translation – so it’s important that this all gets cleared up right away. The goal is for the team to bring up any items that need clarifying, and to make sure all team members know their roles and responsibilities.

**Target Man-day**: 1 Day

**Action by**: Project Manager, Stakeholder, & all team member involved.

**Goal**: Streamline all the project goals to all people involved in the project and solve all the ambiguities for previous engagement with the stakeholder or team members.

## Step 5: Create Small Project within Projects

**Firstly,** define for your project approach/methodology to use. Whether it is Waterfall, Scrum, Kanban, Agile, DevOps or a hybrid approach – create time-boxed segments of effort, and communicate how near or how far the team is in relation to the finish line. Brief to your team which current state, what next in the planning and how far/near to the project timeline to the finish line.

**Second**, within each milestone, have two-week sprints with sprint planning, daily scrum stand-up meetings, retrospectives, and demos. **Third**, track the tasks within each sprint on a Kanban board with development, QA, and user acceptance flows.

**Target Man-day**: During Project Timeline.

**Action by**: Project Manager & all team member.

**Goal**: Ensure that your process can help you break down the larger project into a series of small projects, such that your team can complete the larger project in small chunks.

## Step 6: Lean on the Expertise of your Team

The success of a project delivery relies on the team of experts you are working with. These team members are the ones most versed in the challenges, risks, and issues likely to impact the project. Hence, take time to learn about your team, encourage open discussion, suggestions, and sharing ideas.

**Target Man-day**: During Project Timeline.

**Action by**: Project Manager & all team member.

**Goal**: The goal of this step is to transfer ownership of individual parts of the project to members of the team, empowering them to leverage the skills and expertise they bring to the project. This way no one member is overwhelmed and the team can continue to do good work through the project.

## Step 7: Utilize Software and Tracking Tools

To stay organized, make use of some of the excellent project management software solutions available. The following are useful tools that can help project tracking;

**JIRA** - software team to plan, track, and release great software.

**Trello** - lists, and cards enable you to organize and prioritize your projects in a fun, flexible and rewarding way.

**Slack** - There are multiple channels for specific teams or you can connect with an individual privately. You can leave message, get notifications and even search.

**Target Man-day**: During Project Timeline.

**Action by**: All people involved in the project

**Goal:**

## Step 8: Avoid changes in Project Scope

Scope changes can derail the momentum of a team. Hence, spend some time here to not only identify and document what the change is, but also identify how to refocus the team and their efforts to minimize the negative effects of context switching. Ensure that all stakeholders and the team are aware of the impact of a change request, and adjust your schedule, budget, and tracking accordingly. Gain approval once the full impact of a change is measured. Keep a change log handy, and remind stakeholders and team regularly where they can find the change log.

**Target Man-day**: During Project Timeline.

**Action by**: All people involved in the project

**Goal:** At the end of every sprint / milestone is a great opportunity to work with your stakeholders, align priorities, and keep the momentum going.

## Step 9: Provide Visibility - Stakeholders and Project Team Communications

Build a communications plan. Identify the content required, the best methods for communicating, and the frequency. The typical communication scheme looks like the following:

* Daily: blockers, decisions (Slack/Skype / JIRA comment / WhatsApp)
* Weekly: summaries of spend, progress, decisions, impacts (Email, Tracking Document)
* Monthly: demos, formal status reports (screen share / conference call)

**Target Man-day**: During Project Timeline.

**Action by**: All people involved in the project

**Goal:** To keep stakeholders and the project team engaged, with the aim of preventing mistakes and wasted effort.

## Step 10: Demo Day - Show your Work

Ensure you have consistent feedback from your stakeholder/user to make sure that part of your process includes some time to let your team do a demo of the work they’ve accomplished at the end of each sprint or milestone. This step goes a long way to engage your stakeholders, revisit priorities, and ensure that the work your team is doing aligns with the goals and objectives of the project.

After you’ve done a demo, go back to Step 1 and do a retrospective, continuously improving the work and the relationship with your stakeholders.

**Target Man-day**: During Project Timeline.

**Action by**: All people involved in the project

**Goal:** that will help to mitigate risks and improve your project delivery.

**Project Execution**:

With a clear definition of the project and a suite of detailed project plans, Project

Execution is the phase in which the deliverables are physically developed and presented to stakeholder for acceptance. This phase also involves controlling the project delivery, scope, costs, quality, risks, and issues.

Project Execution

Development of Deliverables

Monitoring & Risk Management

System Internal Test (SIT)

UAT Sign-Off

Project Closure

Training & TOT Before Project Closure

User Acceptance Test (UAT)

**Proposed Project Timeline**:

|  |  |  |
| --- | --- | --- |
| # | Task Name | Duration (Day) |
| 1 | Project Initiation:   * Kick-off Meeting | 1 |
| 2 | Requirement Elaboration:   * User Requirement Specification Submission * Requirement Review & Sign-Off | 1  5 |
| 3 | System Analysis & Design:   * UI Development * Functional/Validation Code Development | 10  35 |
| 4 | Execution & Development:   * **Integration**   + Integration with related service/data. * **Migration**   + Data migration * **Implementation**   + System Integration Test   + User Acceptance Test (UAT)   + Deployment into Production/Live environment | 3  3  11 |
| 5 | Go-Live | 1 |
|  | TOTAL | 60 |