

Software Project Management Lab 1

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I. Lesson 1

1. Learn some open sources that support project management similar to MS Project

Atlassian JIRA

- **Jira** is a proprietary issue tracking product developed by Atlassian that allows not only project management but bug tracking, agile, project management, and work management.
- Highlight features of Jira
 - **Scrum boards and Kanban boards:** Visually drag and drop to track the tasks' progress (backlog, in progress, implemented...).
 - **Roadmaps:** Keeping track of the team progress.
 - **Reports and insights:** reports based on statistics and dashboard offer critical insights to ensure the team is always up-to-date.
 - **Project flexibility:** Autonomy, structure, customizable workflows, and integrations.
 - **Let developers focus on code:**
 - View repositories.
 - See development status.
 - Get DevOps visibility.
 - **Security and scale:** SAML SSO, 2-step verification, automated user provisioning.
- **Jira vs Microsoft Project**
 - Advantages
 - Jira has a simpler UI that allows developers to perform task management more efficiently.
 - Keep track of task management of the teams in real time.

- Quicker to learn for beginners (better learning curve).
- o Disadvantages
 - Cannot be applied to other fields (Only software).
 - Capped file size upload and complex migration.

Jetbrains Youtrack

- YouTrack is a proprietary, commercial browser-based bug tracker, issue tracking system, and project management software developed by JetBrains. It focuses on query-based issue searches with auto-completion, manipulating issues in batches, customizing the set of issue attributes, and creating custom workflows.
- Highlight features of Youtrack:
 - o Time tracking: monitor and report time spent on different projects and various activity types.
 - o Gantt charts: create and update your project plans on an interactive timeline.
 - o Timesheets: track work activity for yourself and other members of your team.
 - o Agile boards: plan and prioritize your product development on a board that represents the process followed by your team.
 - o Reports: collect and summarize insightful bits of information.
 - o Dashboards: monitor activity in all of your projects.

II. Lesson 2

1. Write a Project Charter and Scope statement

Project Definition

This project enables students to find a suitable teacher rather than being dependent on the local teacher. Students have long lived a dependent habit that relies on parents looking for tutors. This application will allow students to be more active in looking for his or her suitable academics. Teachers can register an account to start teaching. In terms of a student, he or she can sign up a simple account with his or her email and choose a subject of interest to start searching for a favorite teacher.

Vision

With this definition in mind, this project is going to be a popular method of finding instructors for students.

1.1. Objectives

Business Objectives

- To deliver an application that 50% of students will search for whenever they have a demand for searching for a tutor.
- To design a simple UI for students can use without asking for parents within 5 minutes of experiencing the application

Technology Objectives

- To protect both students and teachers with identification services that connect with the government.
- Students supply student cards for registration.
- Teacher supplies his or her id card for signing up.
- To develop applications that have unnoticeable delay in interaction.
- To deliver a mobile-oriented platform that can be downloaded on Appstore and CH Play.

1.2. Scope

- **Product Scope Description:** An application that helps the students find a suitable private teacher to improve their studies, and helps the teachers to earn money from teaching.
- **Product Acceptance Criteria:**
 - Easy to use by both sides.
 - Teachers with matching expected results will be recommended to the students.
 - Teachers that have been reported or have a bad experience will be prohibited from using the application.
 - Students can filter based on their desired criteria to find suitable teachers.
- **Project Deliverables:**
 - An interactive application for the teachers and students.
 - An manageable application for system admin to maintain and to manage the behavior of the teachers and students.
- **Project Exclusions:** In this very first phase of the project, payment gateway and chatbox will be excluded.
- **Project Constraints:** The constraints of this project are limited human resource, lockdown due to epidemic, disasters.
- **Project Assumptions:** The application assumes that each student registering for an account will have his or her own personal email. Only offline teaching will be provided.

Project Organization

1. Customers

XYZ Holdings	Trần Quốc Hào
MNOP Ltd. Company	Lê Minh Huy
HJK Corporation	Alexander Johnson

2. Stakeholders

CEO	Alignment with company vision and strategy
Product Owner	Alignment with application integrity and plagiarism
Product Manager	Alignment with keeping track of the software process
Software Project Manager	Compliance with Product Manager for deliverables
Software Tech lead	Compliance with SPM for challenging solution

3. Roles

PM	ABC Group	Lương Quang Khánh	Assigned	28/09/2022
Teach Lead	ABC Group	Trần Quốc Việt	Assigned	28/09/2022
BA	ABC Group	Lương Duy Hưng	Assigned	28/09/2022
Developer	ABC Group	Nguyễn Quý Hải	Assigned	28/09/2022

4. Responsibilities

Project Sponsor

The Project Sponsor is the principal ‘owner’ of the project. Key responsibilities include:

- Defining the vision and high level objectives for the project.
- Approving the requirements, timetable, resources and budget.
- Authorizing the provision of funds / resources (internal or external).
- Approving the project plan and quality plan.
- Ensuring that major business risks are identified and managed.
- Approving any major changes in scope.
- Receiving Project Review Group minutes and taking action accordingly.
- Resolving issues escalated by the Project Manager / Project Review Group.
- Ensuring business / operational support arrangements are put in place.
- Ensuring the participation of a business resource (if required).
- Providing final acceptance of the solution upon project completion.

Project Review Group

Key responsibilities include:

- Assisting the Project Sponsor with the definition of the project vision and objectives.
- Undertaking Quality Reviews prior to the completion of each project milestone.
- Ensuring that all business risks are identified and managed accordingly.
- Ensuring conformance to the standards and processes identified in the Quality Plan.
- Ensuring that all appropriate client/vendor contractual documentation is in place prior to the initiation of the project.

Project Manager

The Project Manager ensures that the daily activities undertaken on the project are in accordance with the approved project plans. The Project Manager is responsible for ensuring that the project produces the required deliverables on time, within budgeted cost and at the level of quality outlined within the Quality Plan.

Key responsibilities include

- Documenting the detailed Project Plan and Quality Plan.
- Ensuring that all required resources are assigned to the project and clearly tasked.
- Managing assigned resources according to the defined scope of the project.

- Implementing the following project processes: time / cost / quality / change / risk / issue / procurement / communication / acceptance management.
- Monitoring and reporting on project performance (re: schedule, cost, quality and risk).
- Ensuring compliance with the processes and standards outlined in the Quality Plan.
- Reporting and escalating project risks and issues.
- Managing project interdependencies.
- Making adjustments to the detailed plan as necessary to provide a complete picture of the progress of the project at any time.

Project Team Member

A Project Team member undertakes all tasks necessary to design, build and implement the final solution.

Key responsibilities include:

- Undertaking all tasks allocated by the Project Manager (as per the Project Plan).
- Reporting progress of the execution of tasks to the Project Manager on a frequent basis.
- Maintaining all documentation relating to the execution of allocated tasks.
- Escalating risks and issues to be resolved by the Project Manager.

2. Giving the following task types

2.1. You celebrate a birthday or a death anniversary at home. Make a plan to see what tasks will be, how many people are required to work, and how much it costs.

Requirements

1. Number of guests: around 20.
2. The party or the anniversary must have some decorations.
3. The venue (house/ground) must be cleaned before and after the party/anniversary.
4. The guests shall be invited via a physical letter or via digital communication (email, zalo, message,...).
5. Food and beverage must be available, prepared carefully and adequately.
6. Guests are not expected to be involved in any chore.
7. Aid might be provided as soon as there is an emergency.

Tasks

- Clean the house before: 2 people – 2 hours – No cost.
- Prepare the decorations, letter, food and beverage:
 - Buy the decoratives: 2 people – 1 hour – 400k.
 - Buy the food and beverage: 2 people – 3 hours – 5m.
 - Buy the physical invitation letter (for the next task): 2 people – 1 hour – 400k.
- Decorate: 4 people – 1 hour – No cost.
- Invite guests:
 - Fill the letter: 2 people – 1 hour – No cost.
 - Send the invitation: 1 person – 8 hours – No cost.
- Cook and serve the meal:
 - Prepare and process the meal: 3 people – 2 hours – 300k (backup, in case of forgetting something).
 - Serve the meal: 3 people – 30 minutes – No cost.
- Clean the house after:
- Do the dishes: 2 people – 1 hour – No cost.
- Clean the house: 2 people – 1 hour – No cost.
- Back-up for emergencies: 1 person – Unknown time – 1m.

Overall

- Human resource: an average of 8 people (each person can do many tasks).
- Total cost: 7.150m.
- Time: 21.5 hours.

2.2. Your family organizes a picnic or camping. Make a plan to see what tasks will be, how many people are needed, and how much it costs.

Requirements

1. Number of guests/participants: 10 ~ 12.
2. Time: 1 day.
3. Must organize on a wide camping field/picnic field.
4. Food and beverage must be available, prepared carefully and adequately.
5. Aid might be provided as soon as there is an emergency.

Tasks

- Reserve the camping field:
 - Research for venue: 1 person – 1.5 hour – No cost.
 - Reserve for venue: 1 person – 1 hour – 2m.
- Buy and prepare food and beverage:
 - Buy: 4 people – 3 hours – 3m.
 - Prepare and process: 2 people – 3 hours – No cost.
- Travel:
 - Book the vehicles: 2 people – 30 minutes – 1m.
 - Onboard: All involved – Length varies – No cost.
- Prepare minigames:
 - Minigame 1: 2 people – 1 hour – 200k (prize).
 - Minigame 2: 2 people – 1 hour – 200k (prize).

- o Back-up for emergencies: 1 person – Unknown time – 1m.

Overall

- Human resource: 12 people.
- Total cost: 7.4m.
- Time: 11 hours.

2.3. Your company organized a 2-day trip to Vung Tau. Make a plan to determine the tasks and estimate the cost per person.

Vung Tau trip - 20 people.

Requirements

- F&B.
- Accommodations
- Transportation.

Sightseeing

- Long Hai Beach - 1st day afternoon.
- Tho Trang Park - 1st day night.
- Jesus statue - 2nd day morning.
- Vung Tau Lighthouse - 2nd day afternoon.

Tasks

- 29-seats bus renting - 1p - 1 day - 4,500k.
- Hotel booking - 1p - 1 day - 5,000k.
- Restaurant reservation - 2p - 1 day - 20,000k.

Total

- Cost: 26,000k - 1,300k per person.
- Human resource: maximum 4 people.
- Time: maximum 3 days.

2.4. Your class has a year-end party or a picnic. Make a plan to see what tasks will be, how many people are required to work, the duties of each person, and how much each person must pay.

Picnic - about 40 people

Requirements

- Food.
- Drinks.
- Entertainment (games, team building, etc...).

Tasks

- Buy food:
 - Buy snacks - 1p - 30 minutes - 400k.
 - Buy bread (breakfast) - 2p - 30 minutes - 600k.
 - Buy BBQ - 2p - 1 hour - 4,000k.
- Buy drink:
 - Buy coke/sprite/water - 2p - 30 minutes - 100k.
 - Buy alcohol - 2p - 30 minutes - 600k.
- Entertainment:
 - Tug of war - 1p - 30 minutes - 50k.
 - Water ball - 3p - 1 hour - 50k.
- Picnic preparing (on-site):
 - Decorate the picnic area, prepare things - 5p - 1 hour.
 - Prepare food - 3p - 1 hour.

Total

- Cost: 5,800k.
- Human resource: maximum 21 people.
- Time: maximum 6.5 hours.

2.5. Your class does charity at a Center for the lonely elderly or provides relief in flood-hit areas. Make a plan to see what tasks will be, how many people are required to work, and how much it costs.

Charity - 10 people joining.

Requirements

- F&B.

Transportation

- Benefactor (budget for donating).

Tasks

- F&B:
 - Buy food - 2p - 1 hour - 2,000k.
 - Buy drink - 2p - 1 hour - 500k.
- Transportation:
 - Hire 16-seat car - 1p - 1 hour - 2,000k.
- Prepare donations:
 - Money donation - 1p - 1 hour - 800,000k.
 - Food donation - 2p - 1 hour - 4,000k.

Total

- Cost: 8,500k + 800,000k donation (can be reduced).
- Human resource: maximum 8 people.
- Time: maximum 5 hours.