DUY TÂN UNIVERSITY

International School

Capstone Project 2

CMU-SE 451

Project Plan

Version 1.0

Date: 19/03/2024

ITTELLIGENCE IT JOB FINDING

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Hoang, Nguyen Thai	_____	19-Feb-2024

Project Information

Project acronym	IIJF		
Project Title	Intelligence IT Job Finding		
Start Date	15th Feb 2024	**End Date**	27th May 2024
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Proposal Document

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1. Project Overview

1.1 Project Description

Project code	IIJF	**Contract type**	Fixed price
Customer		**2nd Customer**	
Project Level	Group	**Project rank**	A
Group	Team SE.06	**Division**	
Project Type	External	**Project Manager/ Scrum master**	Tuan, Nguyen Anh
Project Category	Development	**Business domain**	
Application type	Commercial Product		

1.2 Purpose and Scope

1.2.1 Purpose

Build a smart job search application with CV creation feature. In addition, the application also develops the feature to merge employers and candidates.

Providing solutions to job search needs and saving time for employers and recruiters.

Building a chatbot system helps customers find jobs suitable for their profession, provides information about companies they want to learn about, and supports customers on how to use them. Use customer functions such as Create CV or send CV to employer.

Identify resources, time, budget, implement actual projects and ensure on schedule and budget.

1.2.2 Scope

Providing job search solutions for employers, helping users create CVs easily. A

place to help employers post job content and vacancies so users can apply.

Detect the match between employers and applicants to help make recruitment more effective.

This chatbot can offer a valuable resource for both job seekers and employers on your IT job web application. It can answer user questions, guide them through the platform, and even personalize recommendations. By incorporating this AI assistant, you can streamline user experience and improve overall satisfaction.

1.3 Assumptions and Constraints

No	Description	Note
Assumptions		

1	Nodejs version v18.8.0 (or above) and lower version not supported.	Scope
2	Customer reviewers will get seven days to approve a milestone document. If no comments are received within this time period, it will be considered as approved.	External Interfaces
Constraints		
1	The project is developed within 24 weeks and quarterly deployed on the market.	Schedule
2	The project shall conform to security requirements specified by the customer	Security
3	The product operates at a high level of performance and has a page load of no more than 5 seconds.	Quality
4	The project will be implemented by a team including 4 members	Resources
5	The financial estimation for the project is at a budget limit of $5000	Budget

1.4 Project Objectives

1.4.1 Standard Objectives

Metrics	Unit	Committed	Note
Start Date	dd-mmm-yy		
End Date	dd-mmm-yy		
Duration	days	100 days	
Maximum Team Size	Person	4 Person	
Billable Effort	Person-day	21,5 days	
Number of work hours per day for one engineer	Person-hour	4 hours	

Metrics	Unit	Target			Basic for setting Goals
		LSL	Average	USL	
Quality					
Customer Satisfaction	Point	8.5	9	9.5	Refer to Gx Target in the year 2020, 5% higher than

					previous project (A project)
Leakage	Wdef/UCP				
Process Compliance	NC/Ob				
Cost					
Effort Efficiency	%	70	80	90	
Correction Cost	%	60	65	70	
Delivery					
Timeliness	%	85	90	95	
Requirement Completeness	%	80	85	90	

1.4.2 Specific Objectives

Based on human resources, time and budget, we will build a system that uses intelligent algorithms to detect compatibility between candidates and employers. The system operates with high performance and is safe for users.

User security data is encrypted and stored carefully to avoid data loss.

The system implemented by the project team minimizes errors and controls risks well.

1.5 Critical Dependencies

No	Dependency	Expected delivery date	Note
1	IIJF	2024	Legacy system
2	VNPay system	2024	External System
3	Firebase storage Cloud	2024	External System
4	Mapbox	2024	External System
5	Google	2024	External System
6	Facebook	2024	External System
7	RASA Chatbot	2024	External System

1.6 Project Risk

Risk	Description	Probability	Impact	I * P	Mitigation Strategy
Incorrect requirements	Developing the product which does not accord with the requirements	4	5	20	Discuss and communicate frequently with Stakeholders
Estimate working time	Actual working time is not enough to finish a task compared to the estimated previous time	3	5	15	Review old tasks and evaluations to estimate for the new task. Replan for each sprint.
People	Team member who is ill, has health problems, or busy	3	3	9	Notify the scrum master (or ask a colleague to help you) Complete the assigned tasks when possible
Lack of technical experiences	Detect harmful content in the video is a difficult technique that all members need to research and develop.	2	4	8	Spend a lot of time for learning and training
Team Communication	Team members can conflict with each other while discussing something related to the project	4	2	8	Conduct a meeting to share knowledge, experience and learning methods

2 Project Development Approach

2.1 Technical Process

2.1.1 Reasons for selecting.

To keep up with today's increasingly changing technology trends, we want a truly flexible and easy project development model to adapt to that change. Our project

will develop more new features in the future. We will continuously update and apply new technologies that increase the attractiveness and intelligence of the application.

Currently, our team is a small team with little experience in project development. Therefore, we cannot avoid problems that arise in the software development stages and requirements can be changed to be more suitable. For the traditional model that requires managerial skills and high accuracy, it will not suit our team. Applying Agile Scrum model will help us to solve these problems, bring a lot of experience and best performance for project development.

2.1.2 Agile Methodology

Agile software development refers to a group of software development methodologies based on iterative development, where requirements and solutions evolve through collaboration between self-organizing cross-functional teams.

Agile software development is more than frameworks such as Scrum, Extreme Programming, or Feature-Driven Development (FDD).

Agile software development is more than practices such as pair programming, test-driven development, stand-ups, planning sessions, and sprints.

Agile software development is an umbrella term for a set of frameworks and practices based on the values and principles expressed in the Manifesto for Agile Software Development and the 12 Principles behind it. When you approach software development in a particular manner, it’s generally good to live by these values and principles and use them to help figure out the right things to do given your context.

2.1.3 Scrum Process

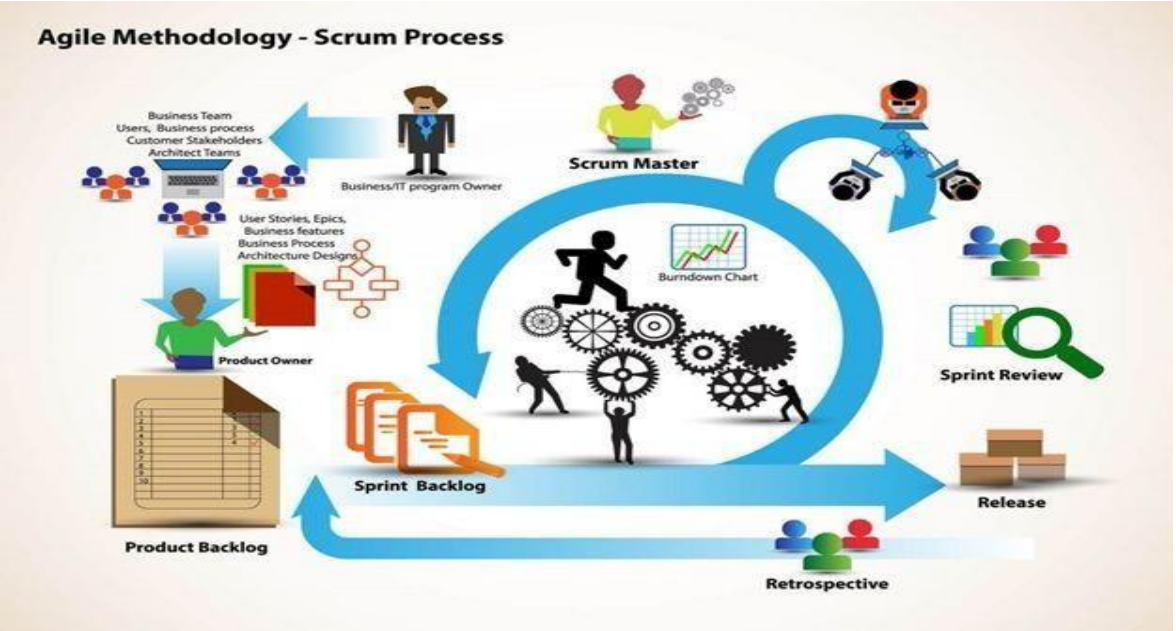


Figure 1: *Agile Methodology*

About Scrum:

Scrum is a subset of Agile. It is a lightweight process framework for agile development, and the most widely used one.

Scrum is most often used to manage complex software and product development, using iterative and incremental practices. Scrum significantly increases productivity and reduces time to benefits relative to classic "waterfall" processes. Scrum processes enable organizations to adjust smoothly to rapidly- changing requirements and produce a product that meets evolving business goals.

An agile Scrum process benefits the organization by helping it to:

+ Increase the quality of the delivery.
+ Cope better with change (and expect the changes).
+ Provide better estimates while spending less time creating them.
+ Be more in control of the project schedule and state.

2.2 Quality Management

2.2.1 Estimates of Defects to be detected

Pre-release review defects:

Process	Planned found by review	Actual found by review
Requirement	13	10
Design	10	0
Coding	50	25
Other	10	5
Total	**73**	**40**

Pre-release test defects:

Process	Planned found by review	Actual found by review
Requirement	13	10
Design	10	0
Coding	50	25
Other	10	5
Total	**73**	**40**

2.2.2 Strategy for Meeting Quality Objectives

Strategy	Expected Benefits
Do defect prevention using the standard defect prevention guidelines and process; use standards developed in JavaScript for coding.	15–25% Reduction in defect injection rate and about 5% improvement in productivity
Group review of program specs for first few/logically complex use cases. Group review of design docs/first time-generated code by project leader, developer, and one consultant.	Improvement in quality as overall defect removal efficiency will improve; some benefits in productivity as defects will be detected early
Introduction of RUP methodology and implementing the project in iterations. Milestone analysis and defect prevention exercise will be done after each Iteration.	Approximately 5% reduction in defect injection rate and 1% improvement in overall productivity

2.2.3 Quality Control

Review Item	Type of Review	Reviewer	When
Proposal	Group review	Hoang, Nguyen Thai Tuan, Nguyen Anh Dat, Nguyen Thanh Duyet, Pham The Tri Minh Le	Initial
Project plan Project schedule Test Plan	Group review One-person review	Hoang, Nguyen Thai Tuan, Nguyen Anh Dat, Nguyen Thanh Duyet, Pham The Tri Minh Le	End of Initiation stage
Business analysis and requirements specification document, Use Case catalog	Group review	Hoang, Nguyen Thai Tuan, Nguyen Anh Dat, Nguyen Thanh Duyet, Pham The Tri Minh Le	End of 90% requirements
Design document, object model	Group review	Hoang, Nguyen Thai Tuan, Nguyen Anh Dat, Nguyen Thanh Duyet, Pham The Tri Minh Le	End of 90% design
Stage plans	One-person review	Hoang, Nguyen Thai Tuan, Nguyen Anh Dat, Nguyen Thanh Duyet, Pham The Tri Minh Le	Beginning of each stage
Complex/first specsincl diagrams time test Generaed cases program interactive	Group review	Hoang, Nguyen Thai Tuan, Nguyen Anh Dat, Nguyen Thanh Duyet, Pham The Tri Minh Le	End of detailed design

Code	Group review	Hoang, Nguyen Thai Tuan, Nguyen Anh Dat, Nguyen Thanh Duyet, Pham The Tri Minh Le	After coding for first few programs

2.2.4 Measurements Program

Data to be collected	Purpose	Responsible	When
Size: No. of KLOC/ FP	Early estimate project cost	PM/SM	At the end of stages
Effort: No. person-day	Calculate project effort for scheduling	Team members	Daily
Quality: No. defects detected	Early evaluate product quality and the feasibility of the project	Reviewer, Tester	Right after the review/test
Schedule	Divide work and allocate resources properly, ensure the project is completed on time and on budget	PM/SM	Weekly and at the end of stages

2.3 Unit Testing Strategy

Grey Box:

- It is a combination of a Black Box and White Box testing. It is the type of testing in which tester aware with internal functionality of a method or unit but not in a more deep level like white box testing. In this, the user partially aware of the internal functionality of a system.
- Write test cases before fixing the defect and independent of each other.
- Write cases to verify behavior, also write test cases to ensure the performance of the code.
- Execute test cases continuously and frequently.
- Using tool: Install and run Jest for writing unit test in NodeJS Isolation of a code.
- Isolate function to test it more rigorously. Isolate code to do Automated Unit Testing in a better way. Isolating functions/code helps to do testing in a good way. It helps to reveal dependencies between functions of code.

2.4 Integration Testing Strategy

Bottom up Strategy:

- The components below are first written and these are integrated first. The integration happens from bottom to top. If the calling component is yet to be developed, it is replaced by a specially written component called a Drive
- When we finish each product backlog, we test it out before we finish.

Bigbang Strategy:

- All components are put together at the same time, there is no order, except all are integrated at the same time.
- Towards the end of the project, we started to apply this tactic to test the entire application.

2.5 System Testing Strategy

Automation strategy:

- Automation Testing or Test Automation is a software testing technique that performs using special automated testing software tools to execute a test case suite.
- The automation testing software can also enter test data into the System Under Test, compare expected and actual results and generate detailed test reports. Software Test Automation demands considerable investments of money and resources.
- Testing tools: Katalon Studio.

Customer testing(Beta testing) strategy:

- Beta testing is a type of user acceptance testing where the product team gives a nearly finished product to a group of target users to evaluate product performance in the real world.
- We are rolling out a beta app on the Google Store early on for testing. After that, we gathered all the feedback and improved our system.

3 Estimation

3.1 Size

(1 point = 2 hours)

All of the Functions	Point
Authentication (Candidate, Employer, Admin)	18
Dashboard View (Admin, Employer)	16
Manage Job (Employer, Admin)	18
Manage Candidate (Admin, Employer)	18
Manage Employer (Admin)	16
Manage Category Job (Admin)	16
Analysis CV and Recommendation (Employer)	30
Contact Message (Candidate, Employer)	18
Search, Filter, and View Job(Candidate)	16
Apply Job (Candidate)	16
Write CV Online (Candidate)	30
Job Recommendation (Candidate)	30

3.2 Effort

The Effort estimation

Activity /Process	Total budgeted Effort Usage (USD)	Total % budgeted Effort Usage (%)	Sprint 1		Sprint 2		Sprint 3		Sprint 4	
			USD	%	USD	%	USD	%	USD	%
Requirement	315.7$	5	80.68	2	78.57	1	78.16	1	78.38	1
Design	358.3$	10	90.38	3	90.27	3	89.35	2	89.38	2
Coding	1276.5 $	25	320.5	7	310.6	5	322.1	6	323.1	7
Testing	695$	18	137.77	5	171.67	4	173.87	4	175.77	5
Deployment	419.1$	12	104.7	3	104.7	3	104.7	3	104.7	3

Support for Acceptance Test	328.8$	5	81.2	1	81.2	1	84.2	2	82.2	1
Project Planning	301.7$	5	74.43	1	74.59	1	77.43	2	75.33	1
Project monitoring	227.6$	5	56.69	1	56.23	1	56.57	1	58.12	2
Quality Asurance	457.2$	7	102.3	1	118.3	2	118.3	2	118.1	2
Training	220.1$	8	55.05	2	55.02	2	55.02	2	55.02	2
Total	**4600$**	**100**	**1139**	**26**	**1141**	**23**	**1159**	**25**	**1160**	**26**

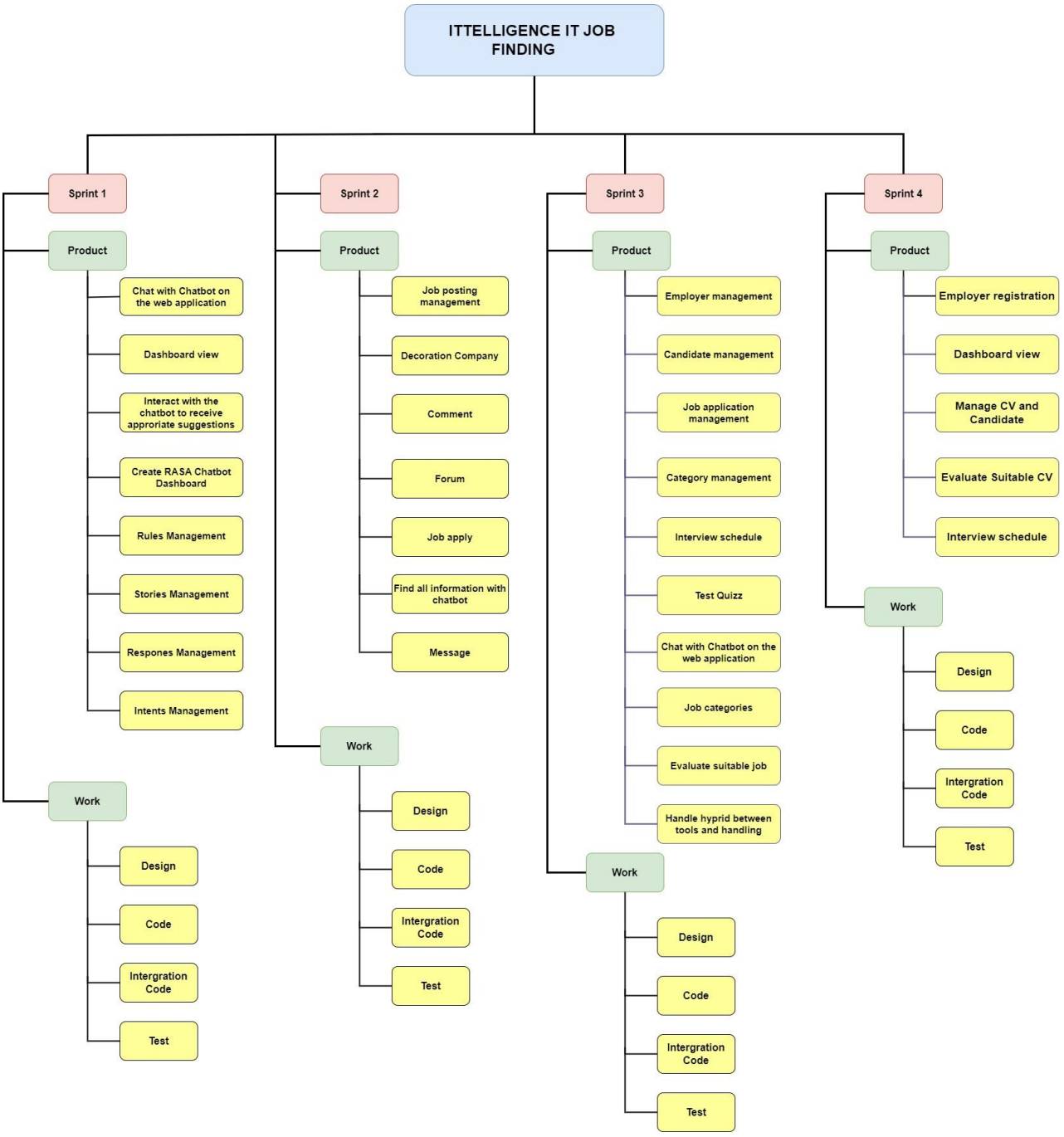
3.3 Schedule

3.3.1 Project Milestone & Deliverable

No	Milestone	Time	Product
1	Initial	22/02/2024	The proposal User Story User Interface Database Document Product Backlog Project Plan ArchitectureDocument
2	Development	06/03/2024	Database Design
2.1	Sprint 1	06/03/2024	Test Plan Test Case Sprint Backlog Product Backlog
2.2	Sprint 2	26/03/2024	
2.3	Sprint 3	15/04/2024	
2.4	Sprint 4	10/05/2024	

3	Project Meeting	30/05/2024	Meeting Document
4	Final Release	31/05/2024	Reflection Document

3.3.2 Work Breakdown Structure



3.1.3 Detailed Schedule

No.	Task Name	Duration (Days)	Start	Finish	Assign to
I.	**Initial**	**3**	**19/02/2024**	**21/02/2024**	**All Member**
1.	Discuss project ideal	1	19/02/2024	19/02/2024	All Member
2.	Gathering Requirement	1	20/02/2024	20/02/2024	All Member
3.	Create Proposal Document	1	21/02/2024	21/02/2024	All Member
II.	**Start Up**	**15**	**22/02/2024**	**05/03/2024**	**All Member**
1.	Project Kick Off Meeting	1	22/02/2024	22/02/2024	All Member
2.	Create Document for project	14	23/02/2024	05/03/2024	All Member
2.1.	Create Project Plan document	3	23/02/2024	25/02/2024	All Member
2.2.	Create Product Backlog document	1	26/02/2024	26/02/2024	
2.3.	Create User Story document	1	27/02/2024	27/02/2024	
2.4.	Create Database document	3	28/02/2024	01/03/2024	
2.5.	Create User Interface document	1	28/02/2024	28/02/2024	
2.6.	Create Architecture document	3	01/03/2024	03/03/2024	

2.7.	Pre-study	1	04/04/2023	04/04/2024	All Member
2.8.	Project kick off meeting	1	05/03/2024	05/03/2024	All Member
III.	**Development**	**80**	**06/03/2024**	**25/05/2024**	**All Member**
1.	**Sprint 1**	**20**	06/03/2024	25/03/2024	**All Member**
1.1	Sprint Planning Meeting	1	06/03/2024	06/03/2024	
1.2	Create Sprint Backlog for Sprint 1	1	07/03/2024	07/03/2024	
1.3	Create Test Plan document for Sprint 1	1	08/03/2024	08/03/2024	
1.4	**Design UI**	**2**	09/03/2024	10/03/2024	**All Member**
1.4.1	Design UI Chat with Chatbot on the web application [Admin]	1	09/03/2024	09/03/2024	
1.4.2	Design UI Dashboard view [Admin]	1	09/03/2024	09/03/2024	
1.4.3	Design UI Interact with the chatbot to receive approriate suggestions	1	09/03/2024	09/03/2024	
1.4.4	Design UI Create RASA Chatbot Dashboard [Admin]	1	09/03/2024	09/03/2024	
1.4.5	Design UI Rules Management	1	09/03/2024	09/03/2024	

1.4.6	Design UI Stories Management	1	10/03/2024	10/03/2024	
1.4.7	Design UI Respones Management	1	10/03/2024	10/03/2024	
1.4.8	Design UI Intents Management	1	10/03/2024	10/03/2024	
1.5	**Code**	**10**	**11/03/2024**	**20/03/2024**	**All Member**
1.5.1	[Front End] Chat with Chatbot on the web application [Admin]	3	11/03/2024	13/03/2024	
1.5.2	[Front End] Dashboard view [Admin]	2	11/03/2024	12/03/2024	
1.5.3	[Front End] Interact with the chatbot to receive approriate suggestions	2	13/03/2024	14/03/2024	
1.5.4	[Front End] Create RASA Chatbot Dashboard [Admin]	2	14/03/2024	15/03/2024	
1.5.5	[Front End] Rules Management	2	15/03/2024	16/03/2024	
1.5.6	[Front End] Stories Management	2	16/03/2024	17/03/2024	
1.5.7	[Front End] Respones Management	1	17/03/2024	17/03/2024	

1.5.8	[Front End] Intents Management	1	18/03/2024	18/03/2024	
1.5.10	[Back End] Chat with Chatbot on the web application [Admin]	2	11/03/2024	13/03/2024	
1.5.11	[Back End] Dashboard view [Admin]	2	11/03/2024	13/03/2024	
1.5.12	[Back End] Interact with the chatbot to receive approriate suggestions	2	14/03/2024	15/03/2024	
1.5.13	[Back End] Create RASA Chatbot Dashboard [Admin]	2	14/03/2024	15/03/2024	
1.5.14	[Back End] Rules Management	2	16/03/2024	17/03/2024	
1.5.15	[Back End] Stories Management	2	16/03/2024	17/03/2024	
1.5.16	[Back End] Respones Management	2	18/03/2024	19/03/2024	
1.5.17	[Back End] Intents Management	2	19/03/2024	20/03/2024	
1.6	**Testing & Fix Bug**	**3**	21/03/2024	23/03/2024	**All Member**
1.7	**Release Sprint 1**	**2**	24/03/2024	25/03/2024	**All Member**
1.7.1	Sprint 1 Review Meeting	1	24/03/2024	24/03/2024	All Member

1.7.2	Sprint 1 Retrospective	1	25/03/2024	25/03/2024	All Member
2	**Sprint 2**	**20**	26/03/2024	14/04/2024	**All Member**
2.1	Sprint Planning Meeting	1	26/03/2024	26/03/2024	
2.2	Create Sprint Backlog for Sprint 2	1	27/03/2024	27/03/2024	
2.3	Create Test Plan document for Sprint 2	1	28/03/2024	28/03/2024	
2.4	**Design UI**	**2**	29/03/2024	30/03/2024	**All Member**
2.4.1	Design UI for Job posting Page	1	29/03/2024	29/03/2024	
2.4.2	Design UI for Decorating Company	1	29/03/2024	29/03/2024	
2.4.3	Design UI for Comment Page	1	29/03/2024	29/03/2024	
2.4.4	Design UI for Forum Page	1	29/03/2024	29/03/2024	
2.4.5	Design UI for Job Apply Page	1	30/03/2024	30/03/2024	
2.4.6	Design UI Message Page [Employer]	1	30/03/2024	30/03/2024	
2.4.7	Design UI Message Page [Employer]	1	30/03/2024	30/03/2024	
2.5	**Code**	**10**	31/03/2024	09/04/2024	**All Member**

2.5.1	[Front End] for Job posting Page	3	31/03/2024	02/04/2024	
2.5.2	[Front End] for Decorating Company	4	31/03/2024	03/04/2024	
2.5.3	[Front End] for Comment Page	4	03/04/2024	06/04/2024	
2.5.4	[Front End] for Forum Page	3	04/04/2024	06/04/2024	
2.5.5	[Front End] for Job Apply Page	3	07/04/2024	09/04/2024	
2.5.6	[Front End] Message Page	3	07/04/2024	09/04/2024	
2.5.7	[Back End] for Job posting Page	3	31/03/2024	02/04/2024	
2.5.8	[Back End] for Decorating Company	4	31/04/2024	03/04/2024	
2.5.9	[Back End] for Comment Page	4	03/04/2024	06/04/2024	
2.5.10	[Back End] for Forum Page	3	04/04/2024	06/04/2024	
2.5.11	[Back End] for Job Apply Page	3	07/04/2024	09/04/2024	
2.5.12	[Back End] Message Page	3	07/04/2024	09/04/2024	
2.6	**Testing & Fix Bug**	**3**	10/04/2024	12/04/2024	**All Member**
2.7	**Release Sprint 2**	**2**	13/04/2024	14/03/2024	**All Member**

2.7.2	Sprint 2 Review Meeting	1	13/04/2024	13/04/2024	All Member
2.7.3	Sprint 2 Retrospective	1	14/03/2024	14/03/2024	All Member
3.	**Sprint 3**	**20**	**15/04/2024**	**09/05/2024**	**All Member**
3.1	Sprint Planning Meeting	1	15/04/2024	15/04/2024	
3.2	Create Sprint Backlog for Sprint 3	1	16/04/2024	16/04/2024	
3.3	Create Test Plan document for Sprint 3	1	17/04/2024	17/04/2024	
3.4	**Design UI**	**2**	**18/04/2024**	**19/04/2024**	**All Member**
3.4.1	Design UI for Employer management Page [Admin]	1	18/04/2024	18/04/2024	
3.4.2	Design UI for Candidate management Page [Admin]	1	18/04/2024	18/04/2024	
3.4.3	Design UI for Job application management Page [Admin]	1	18/04/2024	19/04/2024	
3.4.4	Design UI for Category management Page	1	19/04/2024	19/04/2024	

	[Admin]				
3.4.5	Design UI for Test Quizz Page	1	19/04/2024	19/04/2024	
3.4.6	Design UI for Chat with Chatbot on the web application [Candidate]	1	19/04/2024	19/04/2024	
3.5	**Code**	**10**	**20/04/2024**	**29/04/2024**	**All Member**
3.5.1	[Front End] for Employer management Page [Admin]	2	20/04/2024	21/04/2024	
3.5.2	[Front End] for Candidate management Page [Admin]	2	20/04/2024	21/04/2024	
3.5.3	[Front End] for Job application management Page [Admin]	2	22/04/2024	23/04/2024	
3.5.4	[Front End] for Category management Page [Admin]	5	22/04/2024	26/04/2024	
3.5.5	[Front End] for Test Quizz Page	5	23/04/2024	27/04/2024	
3.5.6	[Front End] for Chat with Chatbot on the	3	27/04/2024	29/04/2024	

	web application [Candidate]				
3.5.7	[Back End] for Employer management Page [Admin]	3	20/04/2024	22/04/2024	
3.5.8	[Back End] for Candidate management Page [Admin]	3	20/04/2024	22/04/2024	
3.5.9	[Back End] for Job application management Page [Admin]	3	23/04/2024	25/04/2024	
3.5.10	[Back End] for Category management Page [Admin]	3	23/04/2024	25/04/2024	
3.5.11	[Back End] for Test Quizz Page	4	26/04/2024	29/04/2024	
3.5.12	[Back End] for Chat with Chatbot on the web application [Candidate]	4	26/04/2024	29/04/2024	
3.6	**Testing & Fix Bug**	**3**	**05/05/2024**	**07/05/2024**	**All Member**
3.7	**Release Sprint 3**	**2**	**08/05/2024**	**09/05/2024**	**All Member**
3.7.1	Sprint 3 Review Meeting	1	08/05/2024	08/05/2024	All Member

3.7.2	Sprint 3 Retrospective	1	09/05/2024	09/05/2024	All Member
4	**Sprint 4**	**20**	**10/05/2024**	**29/05/2024**	**All Member**
4.1	Sprint Planning Meeting	1	10/05/2024	10/05/2024	All Member
4.2	Create Sprint Backlog for Sprint 4	1	11/05/2024	11/05/2024	
4.3	Create Test Plan document for Sprint 4	1	12/05/2024	12/05/2024	
4.4	**Design UI**	**2**	13/05/2024	14/05/2024	**All Member**
4.4.1	Design UI for Employer registration Page	1	13/05/2024	13/05/2024	
4.4.2	Design UI for Dashboard view Page [Employer]	1	13/05/2024	13/05/2024	
4.4.3	Design UI for Manage CV and Candidate Page [Employer]	1	14/05/2024	14/05/2024	
4.4.4	Design UI for Interview Schedule [Candidate]	2	14/05/2024	14/05/2024	
4.5	**Code**	**10**	15/05/2024	24/05/2024	**All Member**
4.5.1	[Front End] for Employer registration Page	2	15/05/2024	16/05/2024	

4.5.2	[Front End] for Dashboard view Page [Employer]	2	15/05/2024	16/05/2024	
4.5.3	[Front End] for Manage CV and Candidate Page [Employer]	2	17/05/2024	18/05/2024	
4.5.4	[Front End] for Interview Schedule [Candidate]	6	17/05/2024	22/05/2024	
4.5.5	[Back End] for Employer registration Page	2	19/05/2024	20/05/2024	
4.5.6	[Back End] for Dashboard view Page [Employer]	2	23/05/2024	24/05/2024	
4.5.7	[Back End] for Manage CV and Candidate Page [Employer]	2	23/05/2024	24/05/2024	
4.5.8	[Back End] for Interview Schedule [Candidate]	6	19/05/2024	24/05/2024	
4.6	**Testing & Fix Bug**	**3**	25/05/2024	27/05/2024	**All Member**
4.7	**Release Sprint 4**	**2**	28/05/2024	29/05/2024	**All Member**
4.7.1	Sprint 4 Review Meeting	1	28/05/2024	28/05/2024	All Member

4.7.2	Sprint 4 Retrospective	1	**10/05/2024**	**25/05/2024**	All Member
IV.	**Project's Meeting**	**1**	30/05/2024	30/05/2024	**All Member**
V.	**Final Release**	**1**	31/05/2024	31/05/2024	**All Member**

3.1.4 Project Schedule

The detailed project schedule is available here The Project Schedule is weekly updated by the Project Manager.

No.	Activity	Start date	Responsible	Note
Defect Prevention				
1	Sprint 1	06/03/2024	All members	
2	Sprint 2	26/03/2024	All members	
3	Sprint 3	15/04/2024	All members	
4	Sprint 4	10/05/2024	All members	
Quality Control				
1	Review: Work Product 1		Mentor - Team members	
2	Review: Work Product 2		Mentor - Team members	
3	Review: Work Product 3		Mentor - Team members	
4	Review: Work Product 4		Mentor - Team members	
Project Tracking				
1	Sprint Plan Meeting		Mentor - Team members	
2	Sprint 1 Review Meeting		Mentor - Team members	
3	Sprint Plan Meeting		Mentor - Team members	
4	Sprint 2 Review Meeting		Mentor - Team members	
5	Sprint Plan Meeting		Mentor - Team members	
6	Sprint 3 Review Meeting		Mentor - Team members	
7	Sprint Plan Meeting		Mentor - Team members	
8	Sprint 4 Review Meeting		Mentor - Team members	
9	Final Plan Meeting		Mentor - Team members	
10	Final Release Meeting		Mentor - Team members	

QA				
1	Deliverable 1		Mentor - Team members	
2	Deliverable 2		Mentor - Team members	
3	Deliverable 3		Mentor - Team members	
4	Deliverable 4		Mentor - Team members	
5	Baseline audit: Startup		Mentor - Team members	
6	Baseline audit: Wrap-up		Mentor - Team members	

3.3 Resource

Specified as in the section *Project Team*

3.4 Infrastructure

Work/Product	Purpose	Expected Availability	Note
Development Environment			
Window 10, 11	Operating System	Initiation stage	
Visual Studio Code	Source code editor	Initiation stage	
MongoDB	DBMS	Initiation stage	
JavaScript	Development language for Web interface	Initiation stage	
JavaScript	Development language for Restful API	Initiation stage	
Python	Development language for bulding Chatbot	Initiation stage	
Hardware & Software			
4 Personal Laptop	Design, Develop and Emulate	Initiation stage	
Other Tools			
Git, Github	Source version control	Definition stage	
Postman	API Testing	Construction stage	
Figma	UI/UX Design	Definition stage	
Draw.io	Diagramming	Initiation stage	
Jira	Task tracking	Initiation stage	

3.5 Training Plan

Training Area	Participants	Duration	Waiver Criteria
Technical			
JavaScript Language	All members	7 days	If already trained
Detect harmful contents	All members	10 hrs	If already trained
ReactJS	All members	10 days	If already trained
NodeJS	All members	10 days	If already trained
Python	All members	7 days	If already trained
Business domain			
Banking	All members	2 days	
Process			
Quality system	All members	3 hrs	If already trained
Configuration management (Git and bit bucket tool)	All members	2 hrs	If already trained for CC. For others, on-the- job training
Group review	All members	4 hrs	If already trained
Defect prevention	All members	4.5 hrs	Mandatory
Jira tool	All members	1 day	If already trained
Agile Scrum	All members	2 hrs	Mandatory

3.6 Finance

No.	Criteria	Price (USD)	Amount	Total (USD)
1	Working hour	$ 2	2300	$ 4600
				$ 4600

Description	Amount	Unit
Number of members	4	Person
Number of working per day	4	Hours
Number of workdays per week	5	Days
The cost per member per week	20	USD
The number of working days	100	Days

Explain: Amount of working hours = 4 member * 4 hours * 100 days

4 Project Organization

4.1 Organization Structure

Role	Responsibility	Name
Scrum Master	- Communicate the value of Scrum. - Teach the organization on Scrum to maximize business value. - Preserve the integrity and spirit of the Scrum framework. - Serve as a coach and mentor to members of the Team. - Respectfully hold the Team, Product Owners and Stakeholders accountable for their commitments. - ContinuAll Membery work with the Team and business to find and implement improvements. - As a timekeeper - Helping the team agree on what they can	**Tuan, Nguyen Anh**

	achieve during each development sprint (or another period of time). - Helping the team continuously make progress on the project by making sure each person is working on the right tasks, helping to remove any obstacles to the team member's progress, and protecting the team from distractions.	
Product Owner	- A spokesperson for the customerand needs to represent them. - Gathers manages and prioritizes the product backlog. - Has technical product knowledge or specific domain expertise. - Tracks progress towards the release of the product.	**Dat, Nguyen Thanh**
Developer	- Responsible for quality - Responsible for delivering the potential Membery shippable product of the Application each sprint. - Report progress based on the remainingtime. - Self-organized - Owns the Sprint backlog	**All Member**
Mentor	- Guide on the process. - Monitoring All Member activities of the Team. - Help with anything. - Reviews project documents - Reviews product	**Hoang, Nguyen Thai**

4.2 Project Team

Full Name	Position
Hoang, Nguyen Thai	Mentor
Tuan, Nguyen Anh	Scrum Master, Dev-team
Dat, Nguyen Thanh	Product Owner, Dev-team
Duyet, Pham The	Dev-team
Tri, Le Minh	Dev-team

5 Communication & Reporting

Audience / Attendees	Topic / Deliverable	Frequency	Method
Scrum Master, Members	Daily meeting	Daily	Face to Face / Zoom Meeting / Zalo Chat
Scrum Master, Members	Sprint Planning Meeting	When starting a sprint	Zoom Meeting
Scrum Master, Members, Mentor	Sprint Review Meeting	When finishing a sprint	Face to face, Zoom Meeting
Scrum Master, Members	Sprint Retrospective	When the sprint review finish	Face to Face
Scrum Master, Members	Individual Meeting	When need	Face to Face, Zoom Meeting, Message
Scrum Master, Members, Mentor	Working report, review problems	Once a week	Face to face

6 Configuration Management

<Refer to the CM plan or insert here the contents of the CM plan as appropriated>

7 Security Aspects

- The credential data is carefully secured by multi-layer encryption and data integrity is ensured. Regularly back up system data.
- Research on network attack prevention solutions to ensure data security, avoid being exploited and stolen data by hackers.
- Deploy project architecture with a high priority in security. Optimized architectural solutions enable the deployment of data security with 99% reliability.
- Social media, sharing and use of data must be approved by the end user and

verified by the organization's management.

REFERENCES

No	Reference item	Issued Date	Source	Note
1	Agile Scrum	04-Apr-21	https://www.atlassian.com/agile	
			https://www.cprime.com/resources/w hat-is-agile-what-is-scrum/	
			https://www.agilealliance.org/agile10 1/	
			The Scrum Framework by International Scrum Institute	
2	Software Standards	05-Apr-21	https://www.nws.noaa.gov/oh/hrl/de velopers_docs/General_Software_Standards.pdf	
			https://standards.ieee.org/standard/12 208-2017.html	
			https://sw-eng.larc.nasa.gov/	