PROJECT 1

INITIAL PROJECT PLAN

ITECH3208

BY: PROJECT TEAM 02

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Table of Contents

Organization, initial project plan and processes: **2**

1. Process model: 2

2. Structure of the project team, in terms of scrum roles 4

3. Interfaces with the client and other stakeholders. Who is responsible for communication, and how? 7

4. Responsibilities for each type of activity in the project (programming, designing, etc) 8

5. Document and code configuration management systems specified –documentation management 9

6. Aligns with electronic project board created in GitHub/Trello (or equivalent) 10

Managerial process: **12**

1. Management objective and priorities. 12

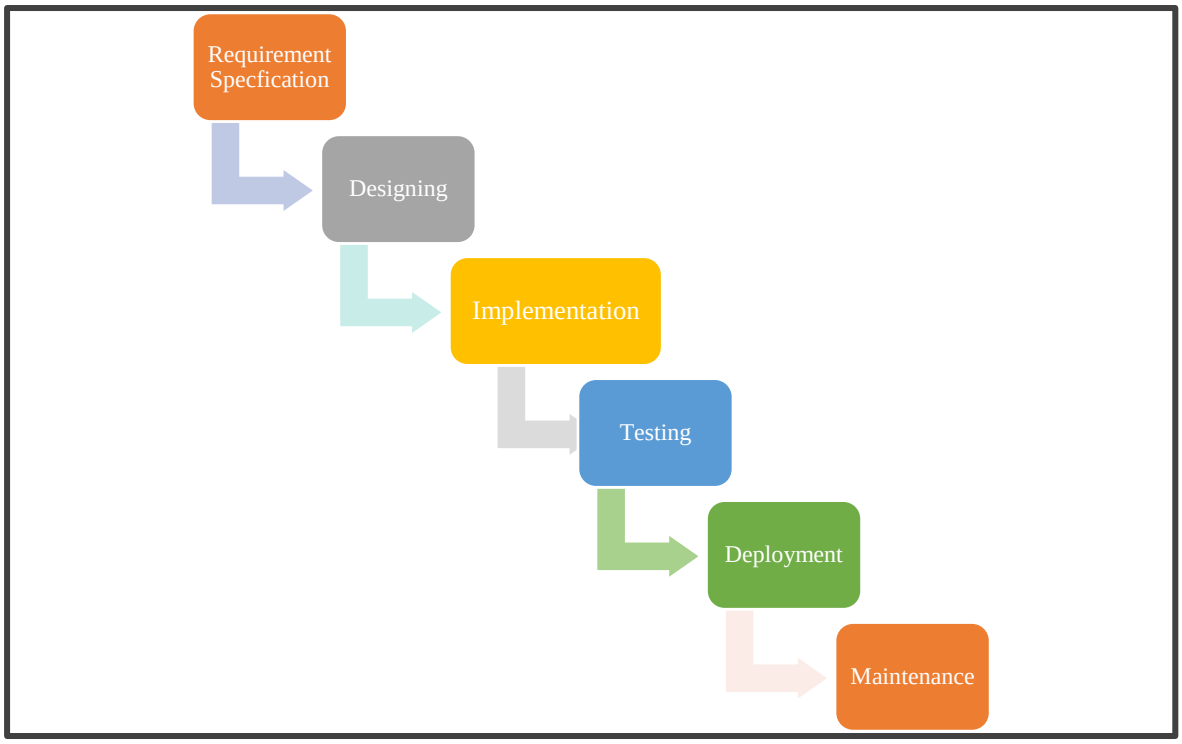
2.Assumption, dependences, and constraints. 13

INITIAL PROJECT PLAN

Organization, initial project plan, and processes:

1. Process model:

In this project "The Waterfall Model" will be used, as it would enable the project team, to maintain a systematic, sequential approach, towards the project development. The model, consists of 5 stages in particular, namely: 1) Requirement specification, 2) Designing, 3) Implementation, 4) Testing, 5) Deployment, and 6) Maintenance. Each stage involves a set of activities to be performed, in order to facilitate a seamless process of project development.



Process Model

A high-level breakdown of the activities in the project (project plan)

Requirement Specification:

In this initial stage of the waterfall process model, the needs, and requirements of the clients, will be analyzed, in-depth. Moreover, the specifications related to the project functionality, and purpose will also be noted, thoroughly. Additionally, the functional, and non-functional requirements of the input and output or that of the final project, would be efficiently examined. Wherein, the non-functional requirements, such as the platform to be used for project development, means of communication, system performance, security, privacy, usability, reliability, and modifiability, would be taken into consideration. This phase would also include documentation of essential requirements of the client, and project objectives, goals, assumptions, constraints, and deliverables.

Project Designing:

The second stage would be involving the process of designing the project based on the requirements gathered and analyzed in the initial stage. The project designed at this level would assist in specifying the hardware and system component requirements. Moreover, it would also help define the overall architecture of the project, by brainstorming and making usage of software such as GitHub, and diagrams like wireframes, and charts.

Implementation:

In the implementation stage, the development team of the project would work on the inputs received from the system design. The entire system of the project on Moodle will be first developed into small programs, termed units, which will be then integrated into the upcoming phase. Afterward, these small units will be developed, as per the functional requirements of the client.

Testing:

In this phase, the testing would be done for each unit developed earlier, this process is termed unit testing of the project by the tester. The testing will be done effectively, keeping in mind the client requirements, user security, and privacy. If anything functionality is found missing or is not working properly, then the respective unit will be developed, implemented, and tested again. The testing procedure would involve the

testing of the background functionality, the processing, and the project structure, as well.

Deployment:

Followed by testing, there will be a deployment stage. When the functional and non-functional testing requirements are done successfully, then the project will be deployed in the client's environment.

Maintenance:

This is the final stage in the project development process, which will get commenced after the project will be installed successfully. In the maintenance stage, modifications will be made to the system, on a timely basis. Moreover, the individual components of the project might also be maintained, by altering the attributes, or by improving their performance. Such modifications will arise, either because of client requests or the defects discovered while using the system. The client will be facilitated with regular support and maintenance for the developed project.

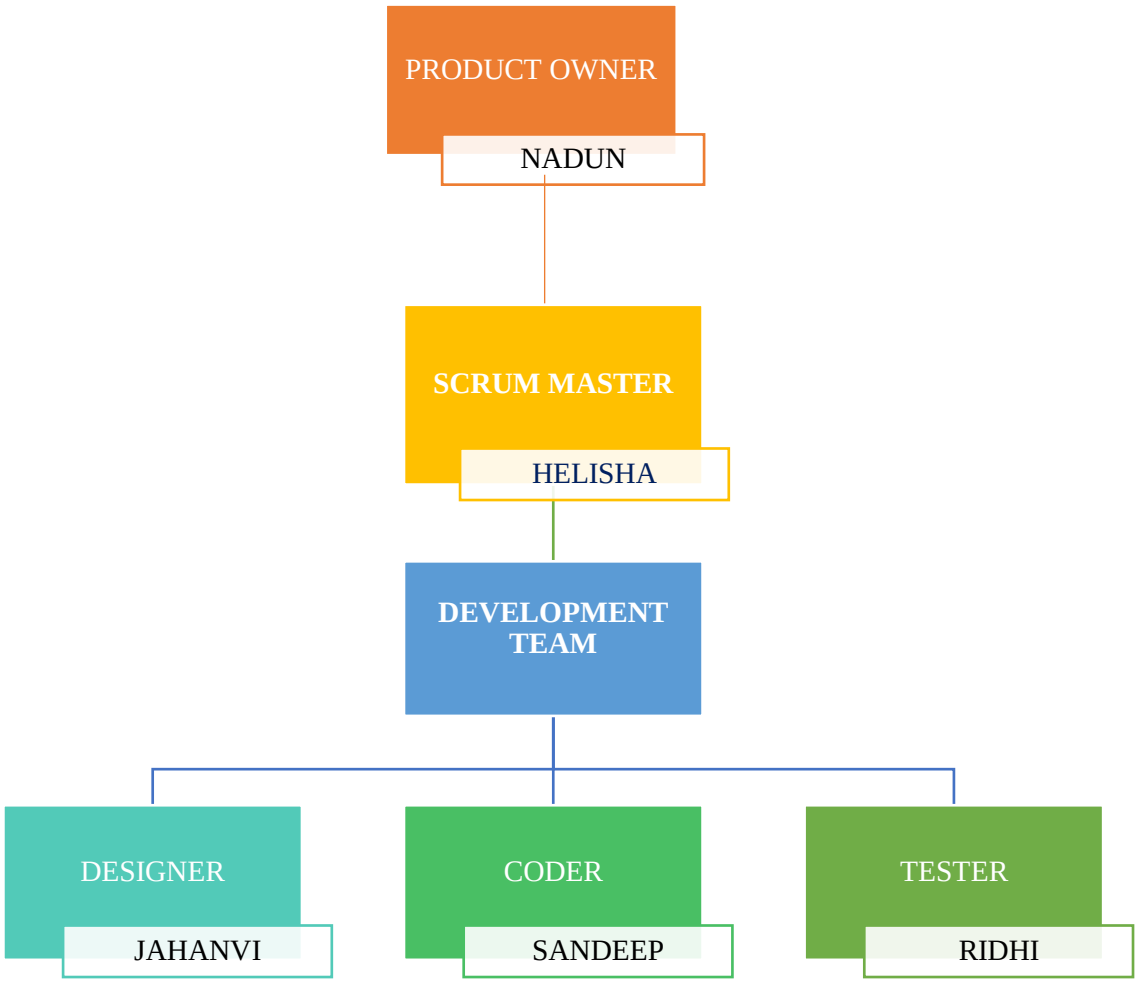
2. Structure of the project team, in terms of scrum roles

All the SCRUM roles and responsibilities of the project team members are as mentioned below: -

SCRUM ROLES	ALLOCATED MEMBERS	ASSIGNED RESPONSIBILITIES
SCRUM MASTER	HELISHA PATEL	❖ To educate the team members, about their roles, and responsibilities. ❖ To plan, and organize stand-up group meetings, on daily basis. ❖ To assist the product owner with the product backlog.

		❖ To be capable enough to handle any obstructions witnessed during or between the implementation process. ❖ Accountable for enhancing the interactions between the development team members, and the client to foster the productivity of the team. ❖ To ensure good interaction between the development team and the product owner.
PRODUCT OWNER	NADUN	❖ To manage and prioritize the product backlog. ❖ To communicate the vision and requirements of the client to the development teams and the scrum master. ❖ To serve as a liaison between the product, and its development. ❖ To oversee the development stages of the project, and evaluate their progress at each iteration.

		❖ To motivate the team members, and be accessible to them.
DEVELOPMENT TEAM	JAHANVI DARJI (Designer) SANDEEP KAUR (Coder) RIDHI (Tester)	❖ Responsible for the performance of the project. ❖ To provide all the intermediate results of the project work at the end of each sprint, to the scrum master. ❖ To test all the integrated units of the project, as per the client requirements. ❖ To participate in the daily scrum and other essential group meetings organized by the scrum master. ❖ To give an estimated amount of time required for delivering the tasks, assigned while developing the project.



Project team Structure

3. Interfaces with the client and other stakeholders. Who is responsible for communication, and how?

- Initially, the product owner will identify the requirements of the client, and the scrum master will integrate the team member and will guide them throughout the project. The development team will collaboratively work on the project to fulfill the needs of the client.
- Once the initial meeting to plan the project with all the team members is done, the product owner will present the budget to the client for approval.
- In between the process, if any changes are needed, the designer will modify the plan, and the development team will work on that.
- For communication, our team will use the following technologies, Teams, and Zoom for meetings; word, PowerPoint for documentation; Visual Studio, WampServer for coding purposes and GitHub for code and document configuration.
- The scrum master will conduct the meeting with the client and oversee the development of the project. If the client wants to update or needs some changes,

will inform her, and further, the scrum master will hold a meeting with the team for a discussion on the same.

- After finalizing the project, the product owner will hand over the final product to the client and the client would approve the project as it matches all the functionalities and requirements.

4. Responsibilities for each type of activity in the project (programming, designing, etc)

Responsibility assignment matrix:

R – Responsible **A** – Accountable **C** – Consult **I** – Informed

TEAM / TASKS	PRODUCT OWNER (Nadun)	SCRUM MASTER (Helisha)	DESIGNER (Jahanvi)	CODER (Sandeep)	TESTER (Ridhi)
Requirement Identification	R	A	C	C	I
Client Meetings	A	R	C	C	I
Release sprint plan	R	A	C	C	C
Design UI	C	C	R	A	I
Coding	I	I	C	R	A
Integration of team	C	R	A	A	A

Testing	C	I	I	A	R
Documentation	C	R	A	I	I
Modification in the project	I	I	R	A	C
Handover a final product to the client	R	A	I	I	C

5. Document and code configuration management systems specified

Document configuration management system:

Our project team has chosen the software, Microsoft Teams for configuring the management of documents. Common document types for instance are Word, Excel, PowerPoint, and One Note, which can be managed by utilizing the option, SharePoint. As a result of the optimization done by Microsoft, document management can be done by Dynamic 365 with the integration of Microsoft teams. This will allow the team members to co-author the project documents and thereby sync them, automatically.

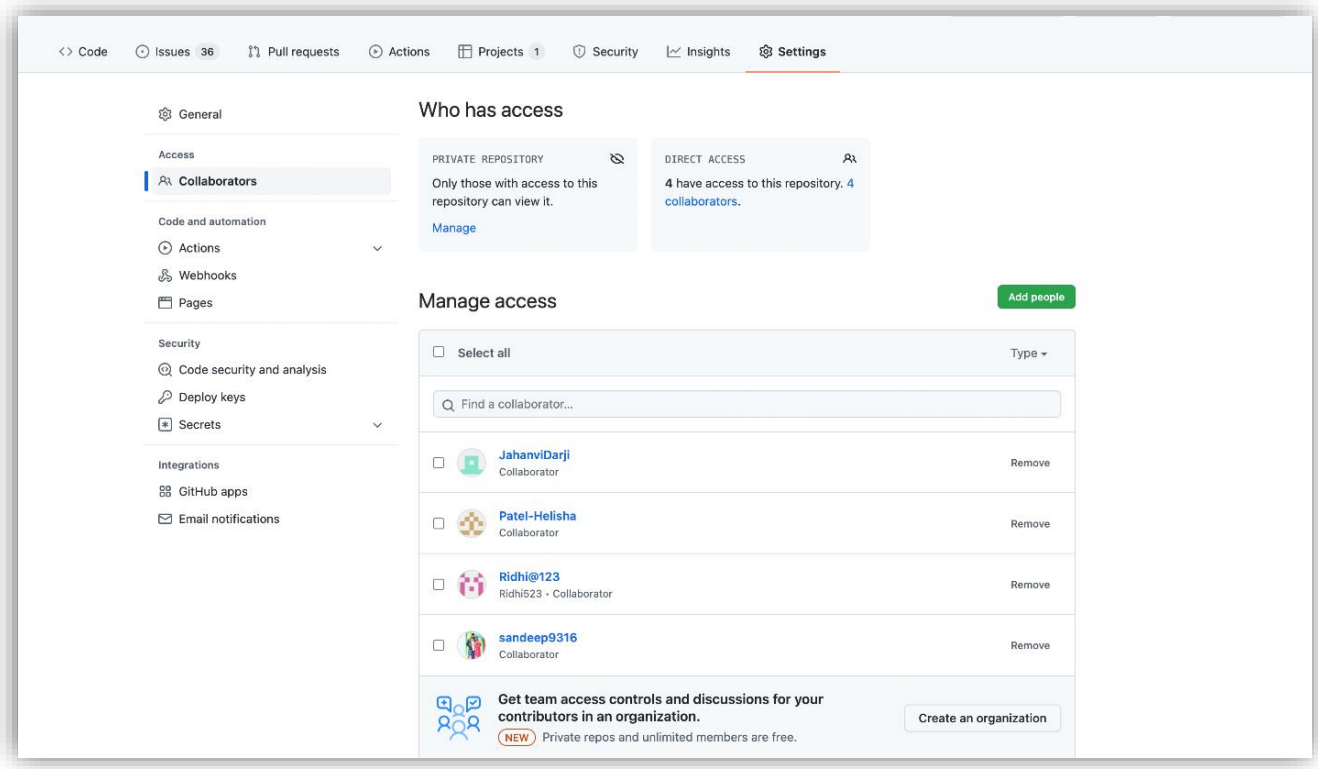
Code configuration management system:

The project team has selected GitHub for code configuration. We are already using GitHub for our project board. Because of the enhancement, the code configuration and the electric project board are linked and could be easily handled, just by clicking a tab. We have created a team of all the members on GitHub for managing the code documents. It is the best platform, as it enables multiple team members to work collaboratively on the same project, and it even restores all the project documents securely. Moreover, any member of the team could add or update the code, so there is no need to send or exchange the files, as well.

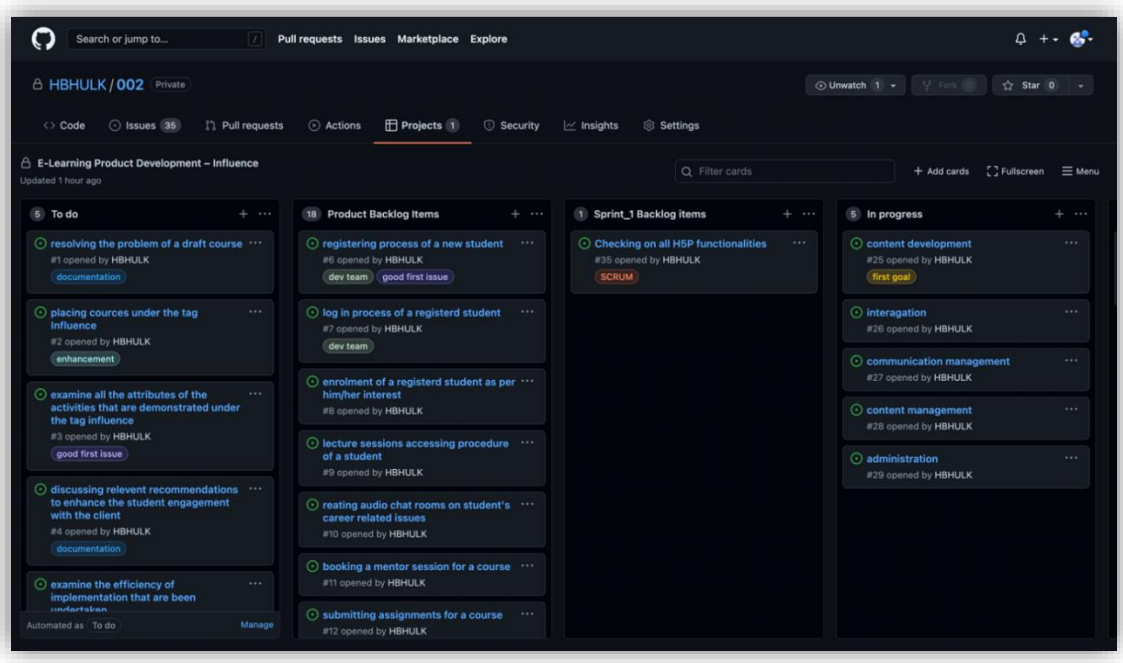
6. Aligns with an electronic project board created in GitHub/Trello (or equivalent)

All the project team members, including the product owner, the scrum master, and the members of the development teams have made their accounts on GitHub. The project team will communicate and function the project, through the platform GitHub.

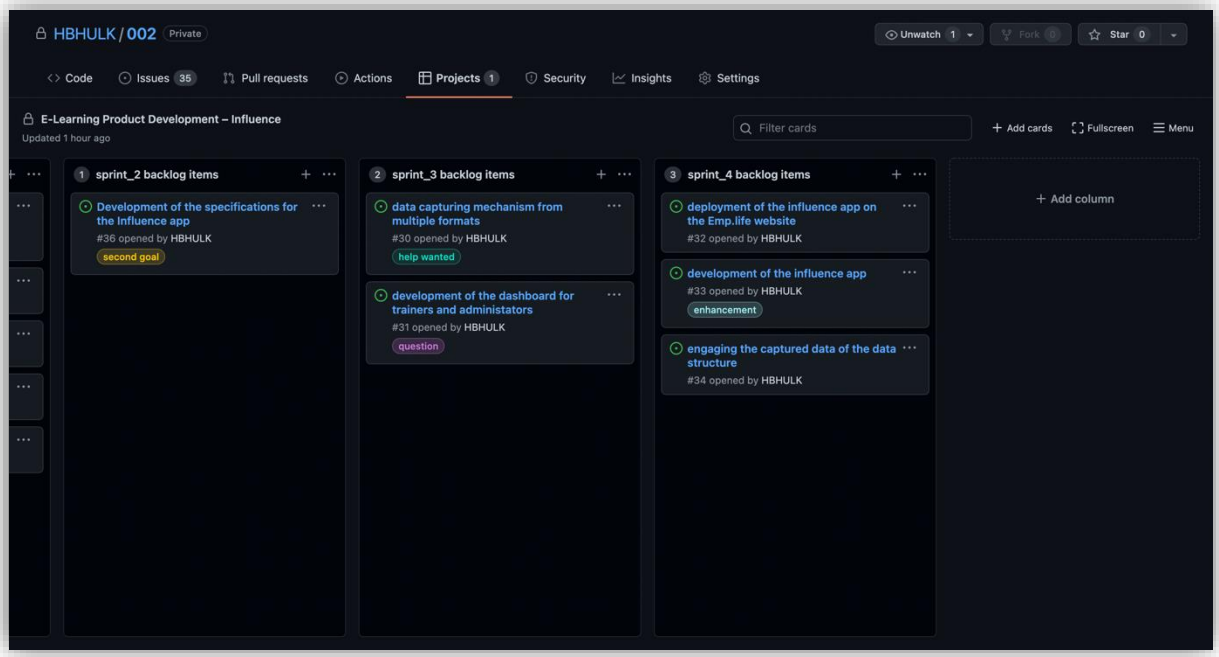
A photo has been attached below demonstrating, that all the five group members of the project have created a project repository on the GitHub:



The image shown below describes that the project named E-Learning Product Development – Influence has been created on GitHub. Moreover, the to-do list for the project, as well as the product backlog items are also documented on it. Additionally, it could also be seen, that an in-progress tab is made for the project, along with the sprint 1 specifications.



<u>The image display below, shows all the other three sprints of the project, along with the specifications for the same</u>: -



Managerial process:

1. Management objective and priorities.

- In the project, the SCRUM master, and the product owner would be accountable for maintaining the communication with the client via electronic mails, Microsoft Teams, audio calls, instant messaging, and other such mediums. The communication conducted, would be regarding the client requirements, and in relevance to the discussions related to the requirement of any modifications in the project.
- Moreover, daily work updates will be given to the scrum master, and the project owner, by the development team of the project. The Product Owner and Scrum master have the authority to assign the tasks to the development team. They will communicate with the development team regarding their roles and responsibilities, the documentation, related issues, and required modifications in the project by heading the group meetings, on Microsoft Team. The documentation of the project would be undertaken by the scrum master of the project.
- The prime objective of the project is to develop an Open-source Learning Management System that will be called Influence, for E/L. The system will be used by E/L to host their interactive courses. As a group, we are aiming to develop an App that will be of high performance to achieve the objectives of E/L. The development of the Influence App would even assist us to learn and advance our skills in software development as well as enhance our project management skills.
- In this project, there are two risks, in general, that the project team must take into consideration while developing the project. These two risk factors, that might hinder the successful development of the project, are the time and budget, allotted to the project team. The project team has to be cautious about delivering the project units, within the allotted deadlines. Moreover, the product owner and scrum master must plan out all the development requirements, to accommodate them within the budget allotted to the team, by the client.
- The client might request changes to the App that might suit further development of the application. Fulfilling these requests will enable the team to attain client satisfaction as well as achieve the overall objective of the project. The communication between the team and the client would be done on a timely basis, such that we can present the project within the set timeframe, and even make the required modifications, as early as possible. The official communication channel between the project team and client would be via email and Microsoft teams.
- The priority of our project team would be to fulfilling all the functional requirements of the client, within the specified timeframe. The project team will ensure, that the client is being updated on a timely basis, regarding the product being developed. Our concern would be to satisfy all the modifications of the client, within the allotted time, and budget.

2. Assumption, dependencies, and constraints.

Project Assumptions:

- It is believed that the student engagement and interactivity with the learning management system-Moodle of Employability.life, will be enhanced effectively after developing the project. Moreover, the courses under the tag Influence would be more efficient, easily operable, as well as accessible to all the students that are participating in those courses.

- Generally, it is presumed to develop, test, and deploy a fully functional and flawless interactive course on LMS, by making usage of technologies, namely, Moodle LMS, HTMS, Power BI, and H5P. It is expected that the developed self-paced course, would include 40-minutes long lecture sessions, a booking system for the tutor session, a tracking system for multimedia content, interactive attributes, an auto-evaluated submission facility, and a user-friendly interface for mentors to examine the assignments.

Project Dependencies:

- The project will be dependent on a lot of factors, such as the time and budget limitations, resource dependency, and many other such dependencies. The product owner and scrum master would have to depend on the time deadlines set for the project. Moreover, the product owner will be liable to arrange all the resources required for the project, within the allocated budget.

- There will also be some project task-related dependencies. Under the task dependencies, the development team would be accountable for developing all the project units within the set timeframe, as other units would not begin without the completion of previous units. Hence, all such dependencies will be kept in mind by the project team, to facilitate the client, with seamless project delivery.

Project Constraints:

- The project is limited to some of its constraints, such as prioritization of the teamwork, within the given budget. The given budget is a constraint, as it involves a lot of factors, such as the salaries of each team member, and the cost of non-functional requirements, as well. Moreover, the other significant constraint is of time, as the project is huge, involving the evaluation, development, and execution of courses on Moodle, to fulfill all the client

requirements, within the given timeframe, which could be a huge deal of time management.

- Lastly, the communication, and coordination among the group members, could be a huge task to achieve. Additionally, there is always a possibility of external factors that might act as an obstacle to flawless the delivery of the project, hence the scrum master, and product owner, along with the development team, should be making a mitigation plan, to rectify any such situations.