



BAHRIA UNIVERSITY (KARACHI CAMPUS)

Introduction To Software Engineering (SEN- 120)

Assignment 02

Spring 2023

Class: BSE 2B

Course Instructor: Engr. Mobeen Nazar

Assignment Date: 30 Mar 2023

Student Name: ABDULLAH

Shift: Morning

Due Date: 19 Apr 2023

Marks: 05 Points

Enrollment #: 02-131222-099

Question: Assume any online software. Assume that this software followed the Incremental model while developing. Applying incremental model (any two increments) of this software.

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| 1. Description of the Project | [1 Mark] |
| 2. Requirements | [1 Mark] |
| 3. Design & Development | [2 Marks] |
| 4. Testing & Implementation | [1 Mark] |

Solution:

APPLYING INCREMENTAL MODEL (CLO-3)

Assuming online software to be a project management tool, the following is the application of the incremental model in developing the software.

1. Description of the Project:

The project management tool is a web-based software that allows users to plan, track, and manage projects effectively. The tool provides features like task management, project timelines, resource allocation, and collaboration to help teams complete projects on time and within budget.

2. Requirements:

The initial requirements for the project management tool were gathered through market research and user feedback. The requirements included:

- **Task Management:** The software should provide a feature to create, assign, and track tasks.
- **Project Timeline:** The software should allow users to create and view project timelines.
- **Resource Allocation:** The software should provide a way to allocate resources to tasks and track their availability.

- **Collaboration:** The software should enable users to collaborate on tasks and projects.

3. Design & Development:

The incremental model was chosen for developing the project management tool. The software was developed in two increments, as described below:

Increment 1:

The first increment focused on building the core features of the software. The design and development activities included:

- **Task Management:** The software was designed to provide a simple and intuitive interface for creating, assigning, and tracking tasks. The development team used agile development methodologies to ensure that the software could be adapted to changing requirements.
- **Project Timeline:** The software was designed to allow users to create and view project timelines. The development team used a Gantt chart to visualize project timelines and milestones.

Increment 2:

The second increment focused on improving the collaboration and resource allocation features of the software. The design and development activities included:

- **Resource Allocation:** The software was designed to provide a way to allocate resources to tasks and track their availability. The development team added a resource allocation view to the software, which allowed users to see which resources were available and which were already assigned to other tasks.
- **Collaboration:** The software was designed to enable users to collaborate on tasks and projects. The development team added a messaging system to the software, which allowed users to communicate with each other and share files.

4. Testing & Implementation:

The project management tool was thoroughly tested after each increment to ensure that it met the requirements and functioned correctly. The testing activities included:

- **Unit Testing:** Each component of the software was tested individually to ensure that it functioned correctly.
- **Integration Testing:** The different components of the software were integrated and tested to ensure that they worked together correctly.

- **User Acceptance Testing:** The software was tested by users to ensure that it met their requirements and was easy to use.

After the testing was completed, the software was implemented and made available to users. The implementation activities included:

- **Deployment:** The software was deployed to a production environment and made available to users.
- **Training:** Users were provided with training to help them learn how to use the software effectively.