Software Process Definition

Team Number- 08

Project Title: Aluminto: Alumni Information Management System (AIMS)

Introduction: Aluminto is a CLI-based utility written in Python, utilizing MySQL as the database, aimed at streamlining alumni information management for educational institutions or organizations. This Software Process Definition Document outlines the selected software development model, iteration details, and rationale for choosing Agile (Scrum) over other models.

Software Development Model Selected: Agile (SCRUM)

Rationale for Model Selection: Agile (Scrum) is chosen for Aluminto due to its adaptability, iterative development approach, and collaborative nature. Given the project's dynamic requirements and the need for continuous feedback, Agile provides a framework that accommodates changes efficiently.

Advantages Over Other Models:

- Iterative Development: Agile's iterative approach aligns with the evolving nature of requirements, allowing for frequent adjustments and improvements.
- Adaptability: Agile accommodates changes in requirements, providing flexibility throughout the development process.
- Collaboration: Constant collaboration ensures stakeholders, developers, and end-users are actively involved, promoting a better understanding of evolving requirements.

Iteration Cycle Details:

For a 2-month development timeline deadline as decided by our mentor Dr. D.K. Verma , the Agile (Scrum) model will be structured into four iterations, each lasting two weeks.

- Iteration 1 (Week 1-2): Requirement gathering, initial design, and setting up the basic CLI framework.
- Iteration 2 (Week 3-4): Database integration, implementing core functionalities, and basic CLI interactions.
- Iteration 3 (Week 5-6): Refinement based on feedback, additional features, and testing.
- Iteration 4 (Week 7-8): Final testing, bug fixing, documentation, and preparing for deployment.

Why Not Other Models: While other models like Waterfall provide predictability and detailed documentation, they lack the flexibility needed for a project like Aluminto. Waterfall's sequential approach might result in delays if requirements evolve, making Agile more suitable for this dynamic project.

Conclusion: The selection of Agile (Scrum) as the software development model for Aluminto ensures adaptability, collaboration, and continuous improvement. The iterative cycle of four two-week sprints allows for efficient development within the specified 2-month timeline. This approach aligns with the project's goals of creating a robust CLI-based utility for alumni information management while accommodating potential changes in requirements

Process Flow Diagram: