Gazipur Digital University

Faculty of Software and Machine Intelligence Engineering

Department of Software Engineering

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Lab Report 03: Implement SDLC selection for your project

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SDLC Model Selection for Plumbing Service Management System

In this section, a comparison table has been prepared to select the most suitable SDLC model for the Plumbing Service Management System. The evaluation criteria include well-known requirements, technological knowledge, efficiency, risk analysis, user testing ability, dependability & security, and time consumption. Each criterion is scored per model and summed to obtain an overall score out of 100.

According to the comparison, the scores are: Waterfall = 55, V-Model = 85, Iterative = 80, Spiral = 90, Agile = 95, and Prototype = 50. Since **Agile** achieves the highest score, it is selected as the most appropriate model for our project. Agile supports short iterations, continuous feedback, frequent testing, and rapid updates—all of which align with booking workflows, status tracking, and cost transparency required in a plumbing service platform. Therefore, Agile is preferred for implementation.

Table 1: Comparison Matrix of SDLC Models (Total = 100 Marks)

Criteria	**Waterfall**	**V-Model**	**Iterative**	**Spiral**	**Agile**	**Prototype**
Well known requirement	10	10	0	0	0	0
Technological knowledge	10	10	10	10	10	10
Efficiency	0	20	20	20	20	20
Risk analysis	0	0	15	15	15	0
User testing ability	0	20	20	20	20	20
Dependability and Security	15	15	15	15	15	0
Time consuming	10	10	0	10	0	0
Overall Score	55	85	80	90	**95**	50