Green University of Bangladesh
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Lab Report NO: 02
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Course Code: CSE 308
Section: 232-D2

Lab Experiment Name: SRS and SDLC Model Selection for the project "LifeLink – Linking Lives to Better Health"

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Lab Report Status

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1. INTRODUCTION

Life-Link – Linking Lives to Better Health is a digital healthcare platform that connects patients with doctors and medical services. It offers features like disease prediction, nearby doctor recommendations, health tracking, and registration.

2. OBJECTIVES

- To find the requirement specification (both functional and nonfunctional) of a given Problem.
- The SDLC aims to produce a high-quality software that meets or exceeds customer expectations, reaches completion within times and cost estimates..

3. PROCEDURE

In this experiment, we carried out the following steps:

1. Defined the main purpose and scope of Life-Link – Linking Lives to Better Health**.**
2. Discussed and documented all functional and non-functional requirements of the system.
3. Examined the system needs according to the development methodology.
4. Reviewed several SDLC models, including Waterfall, V-Shape, Iterative, Spiral, Agile, and Prototype.
5. Assessed each model based on factors like requirement clarity, technical knowledge, efficiency, risk handling, user testing, security, and time requirements.
6. Chose the most suitable SDLC model using a scoring matrix.

4. IMPLEMENTATION

SRS Table

Functional	Non Functional
Disease prediction, Nearby doctor Recommendation, Health Tracking, Registration & Verification, Future Disease Prediction	Performance, Security, Scalability, Usability

Comparison matrix with different models

Priority	Criteria	Waterfall	V- Shape	Iterative	Spiral	Agile	Prototype
5	Well known requirement	**Yes**	**Yes**	**No**	**No**	**No**	**No**
5	Technological knowledge	**Yes**	**Yes**	**No**	**No**	**No**	**No**
6	Efficiency	**No**	**Yes**	**Yes**	**Yes**	**No**	**Yes**
3	Risk analysis	**No**	**No**	**No**	**Yes**	**No**	**No**
3	User testing ability	**No**	**No**	**Yes**	**Yes**	**Yes**	**Yes**
5	Dependability and Security	**No**	**Yes**	**No**	**Yes**	**No**	**No**
3	Time consuming	**Yes**	**Yes**	**No**	**Yes**	**No**	**No**
Total- 30	**Over all**	**13**	**24**	**9**	**20**	**3**	**9**

5. TEST RESULT

We choose V-Shape as our final SDLC model.

6. ANALYSIS AND DISCUSSION

In this experiment, we studied the needs of the Life-Link system and listed its main features like disease prediction, doctor recommendation, health tracking, and registration. We also looked at non-functional needs such as speed, security, and ease of use.

We compared different SDLC models to see which one fits best. Some models were better for clear requirements, while others worked well for user involvement and handling risks. Using a scoring matrix, we chose the model that would make building Life-Link easier and more effective.