Mini Project Report

Simple Heart Risk Calculator (Java)

1. Abstract

The Simple Heart Risk Calculator is a Java-based mini project designed to estimate the risk of heart disease using basic health and lifestyle inputs. The application collects information such as age, smoking habit, blood pressure, cholesterol level, and exercise routine. Based on these factors, a score is calculated and the risk level is displayed as low, medium, or high. The project mainly focuses on applying fundamental Java programming concepts and promoting awareness about heart health.

2. Introduction

Heart disease is one of the leading health concerns worldwide. Early awareness about risk factors can help prevent serious health problems. This project aims to create a simple calculator that estimates heart risk using basic user inputs. It demonstrates how programming can be used to solve real-life problems.

3. Objectives

- To develop a simple Java-based application.

- To understand user input handling and conditional logic.

- To estimate heart disease risk using basic factors.

- To create awareness about healthy lifestyle habits.**4.**

Methodology / Working Principle

The application collects health-related data from the user.
Each risk factor is assigned a specific score.
The total score is calculated based on user inputs.

The program then classifies the result into low, medium, or high risk. The output is displayed in a simple console format.

5. Software Requirements

- Java Development Kit (JDK)

- Java IDE (NetBeans / Eclipse / VS Code)

- Operating System: Windows/Linux/Mac

6. Features of the Project

- Simple user interface (console-based).

- Easy data input process.

- Quick risk calculation.

- Beginner-friendly implementation.

7. Advantages

- Easy to understand and use.

- Helps basic health awareness.

- Demonstrates core Java programming concepts.

8. Limitations

- Not a medical diagnostic tool.

- Uses simplified assumptions.

- Limited health parameters.

9. Future Enhancements

- Graphical user interface (GUI).

- Database integration.

- Mobile or web version.

- Advanced prediction using AI/ML.

10. Conclusion

The Simple Heart Risk Calculator successfully demonstrates how Java programming can be applied to estimate heart health risk using simple inputs. It serves as a basic educational project and can be further developed into a more advanced healthcare application.