**Table of Contents**

1. **Introduction** ............................................................................................................. 1  
   1.1. Introduction ........................................................................................................ 1  
   1.2. Aims of the Project ............................................................................................. 2  
   1.3. Project Scope ............................................................ 2
2. **Requirement Specification** ........................................ 3  
   2.1. Functional Requirements ........................................... 3  
   2.1.1. System Components .............................................. 3  
   2.2. Non-functional Requirements .................................... 5  
   2.2.1. Performance Requirements ................................... 6  
   2.2.2. Software Quality Attributes .................................. 6  
   2.2.3. Safety Requirements ............................................... 7
3. **Project Design** ........................................................... 8  
   3.1. Methodology ................................................................. 8  
   3.2. Architecture Overview ................................................. 8  
   3.3. Design Description ...................................................... 9  
   3.4. Behavioral Diagrams ................................................... 10  
   3.4.1. Use Case Diagram ................................................ 11  
   3.4.2. Activity Diagram .................................................. 12  
   3.4.3. Sequence Diagram ................................................ 13  
   3.5. Structural Diagrams .................................................... 14  
   3.5.1. Class Diagram ...................................................... 15  
   3.5.2. Component Diagram ............................................ 16  
   3.5.3. ERD Diagram ......................................................... 17
4. **Implementation and Evaluation** ................................ 18  
   4.1. Development Stages .................................................... 18  
   4.1.1. Development Phase 1 ............................................ 18  
   4.1.2. Development Phase 2 ............................................ 18  
   4.1.3. Development Phase 3 ............................................ 19  
   4.2. System Integration ..................................................... 19  
   4.3. User Interface ............................................................. 20  
   4.3.1. Home Page ........................................................... 21  
   4.3.2. Other Pages (as relevant) ..................................... 22  
   4.4. Evaluation ................................................................. 23  
   4.5. Unit Testing ............................................................... 24  
   4.5.1. Registration Use Case Table .................................. 25  
   4.5.2. Login Use Case Table .......................................... 25  
   4.5.3. Other Use Case Tables .......................................... 26  
   4.6. Functional Testing ....................................................... 27
5. **Conclusion & Future Work** ......................................... 28  
   5.1. Conclusion ................................................................. 28  
   5.2. Future Work ............................................................... 29
6. **List of Tables** ................................................................. 30
   * Registration Use Case Table ........................................... 31
   * Login Use Case Table ...................................................... 31
   * (Other tables as needed) ................................................ 32
7. **List of Figures** ................................................................. 33
   * Use Case Diagram ......................................................... 34
   * Activity Diagram ............................................................ 35
   * Sequence Diagram ........................................................ 36
   * Class Diagram ................................................................. 37
   * Component Diagram ..................................................... 38
   * ERD Diagram ................................................................. 39
   * (Additional figures as needed) ......................................... 40