IEEE Test Plan

Machine Learning in Diabetes

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TEST PLAN

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**1 TEST PLAN IDENTIFIER**

Diabetes\_1234

**2 REFERENCES**

Software Requirements Specification (SRS)

**3 INTRODUCTION**

This test plan describes the testing methodology for the Diabetes, a piece of software created to aid in the management of diabetes. Data analysis, meal journaling, medication reminders, and blood glucose tracking are some of the services offered by the app. The testing will guarantee the Diabetes device's usability, functionality, and dependability.

**4 TEST ITEMS**

The following is a list of the items to be tested:

Tracking blood sugar levels; recording meals; and receiving medication reminders,Analyses of data

**5 SOFTWARE RISK ISSUES**

Not Applicable

**6 FEATURES TO BE TESTED**

The following is a list of the areas to be tested:

Tracking blood sugar levels; recording meals; and receiving medication reminders,Analyses of data

**7 FEATURES NOT TO BE TESTED**

Not Applicable

**8 APPROACH**

Testing will involve:

- Verifying the accuracy of blood glucose readings

- Ensuring proper logging and calculation of meals and medications

- Checking the functionality of reminders and alerts

- Verifying the accuracy of data analysis and reporting

- Assessing the usability and responsiveness of the user interface

**9 ITEM PASS/FAIL CRITERIA**

The test items will be deemed successful if they perform as intended, the data is reliably logged and analysed, and the user interface is clear and responsive. If there are inconsistencies in blood glucose measurements, mistakes in logging or calculation, failures in reminders or warnings, faults in data processing, or problems with the user interface, they will be regarded as failing.

**10 SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS**

If serious flaws are found that impair the DiabetesApp's fundamental usability or functionality, testing may be put on hold. It will be necessary to fix these flaws before testing can resume.

**11 TEST DELIVERABLES**

The test deliverables will include a test report summarizing the testing results, including any defects discovered and resolved. The deliverables will also include the system test plan, test cases, test scripts, and automation execution summary. Tools used for testing may include JIRA for defect tracking and test management.

**12 Remaining Test Tasks**

The remaining test tasks include:

- Creating additional test cases based on initial testing

- Conducting regression testing after defect resolution

- Performing performance testing to assess the application's responsiveness

**13 Environmental Needs**

The testing environment must include the following:

- Mobile devices or computers to run the DiabetesApp

- Internet connectivity for accessing cloud-based features and resources

**14 Staffing and Training Needs**

One or more test engineers familiar with diabetes management and testing principles are required. Training on the DiabetesApp's functionality and testing approach may be provided.

**15 Responsibilities**

The test team is responsible for:

- Creating and executing the test plan

- Reporting defects and issues

- Collaborating with the development team to resolve defects

- Providing feedback on the overall quality and usability of the DiabetesApp

**16 Schedule**

The testing will be conducted over a span of one week, including time for regression and performance testing.

**17 Planning Risks and Contingencies**

The main risks to the testing process include:

- Integration issues with external devices or data sources

- Handling diverse data formats and units of measurement

- Compatibility issues across different operating systems and devices

**18 Approvals**

This test plan requires approval from the project manager and the development team before testing can commence.

**19 Glossary**

SRS (Software Requirements Specification) - A document outlining the functional and non-functional requirements