UNIVERSITI TEKNOLOGI MARA

UrSugar: Diabetes Management Record System with Data Visualization

NURUL SAJDAHANY BINTI JOHARI

**BACHELOR OF INFORMATION
TECHNOLOGY (Hons)**

JULY 2022

Universiti Teknologi MARA

UrSugar: Diabetes Management Record System with Data Visualization

Nurul Sajdahany Binti Johari

Thesis submitted in fulfilment of the requirements for
Bachelor of Information Technology (Hons)
Faculty of Computer and Mathematical Sciences

JULY 2022

SUPERVISOR'S APPROVAL

UrSugar: Diabetes Management Record System with Data Visualization

By

NURUL SAJDAHANY BINTI JOHARI
2019253196

This thesis was prepared under the supervision of the project supervisor, Siti Sarah Binti Md Ilyas. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Information Technology.

Approved by

Siti Sarah Binti Md Ilyas
Project Supervisor

JULY 13,2022

ABSTRACT

In Malaysia, most of the healthcare facilities are still dependent on paper-based record system. UrSugar Diabetes Management Record System with Data Visualization is a web application to assist diabetics patients and medical staff in managing health record. Following a visit or appointment at healthcare facilities, this system will document patients' information such as blood sugar tests, blood tests, cholesterol tests and eye tests. Diabetics also has ubiquitous access to their health record within the web app. Besides, Power BI dashboard is embedded in system for users to view statistics of related information to diabetics and the predictions of glucose and insulin by age. User Experience Testing (UXT) with 30 participants was conducted to validate the prototype. The participants include diabetic patients, medical staff and experts from IT fields. Results from the UXT shows that the prototype obtained constructive feedback from users. Therefore, it can be concluded that the objective for this study is successfully attained.

TABLE OF CONTENTS

CONTENTS   **PAGE**