

ABSTRAK

Latar Belakang : Kasus diabetes mellitus di dunia mengalami peningkatan yang cukup signifikan beberapa tahun terakhir. Indonesia bahkan menempati peringkat ke-7 dengan kasus diabetes tertinggi di dunia dan menjadi satu-satunya negara di Asia Tenggara yang termasuk dalam 10 negara dengan kasus diabetes mellitus tertinggi. Perancangan dan pengembangan aplikasi berbasis *mobile* bagi penderita diabetes mellitus sudah cukup banyak, tetapi aplikasi – aplikasi tersebut masih kurang ideal karena masih terdapat beberapa fitur yang kurang lengkap terutama pada pemantauan asupan makan penderita diabetes mellitus. Maka dari itu, perlu adanya pengembangan aplikasi yang memadai guna membantu penderita diabetes mellitus dalam melakukan *self-monitoring* terhadap penyakitnya yang sekaligus berperan sebagai *personal health record*.

Tujuan : Perancangan ini bertujuan untuk merancang aplikasi berbasis *mobile* bagi penderita diabetes mellitus.

Metode : Metode yang digunakan dalam perancangan ini yaitu metode pengembangan SDLC dengan model *waterfall*. Perancangan ini berdasarkan studi literature dan studi eksplorasi untuk analisis kebutuhan pengguna. Objek perancangan berupa aplikasi berbasis *mobile* bagi penderita diabetes mellitus.

Hasil : Rancangan antarmuka menghasilkan rancangan *Unified Modelling Language (UML)* yang terdiri dari *use case diagram* dan *activity diagram*, basis data, kamus data, serta tampilan antarmuka aplikasi. Rancangan memuat beberapa fitur dalam *self-monitoring* diabetes mellitus.

Kesimpulan : Telah dihasilkan rancangan aplikasi sesuai dengan kebutuhan penderita diabetes mellitus yang terdiri dari desain proses, desain basis data, dan desain antarmuka (*user interface*).

Kata Kunci : diabetes mellitus, mobile, user interface

ABSTRACT

Background : *Diabetes mellitus cases in the world had increased significantly in recent years. Indonesia even ranks 7th with the highest cases of diabetes in the world and was the only country in southeast asia which was included in the 10 countries with the highest cases of diabetes mellitus. The design and development of mobile-based applications for diabetes mellitus sufferers was quite a lot, but these applications were still not ideal because there were still some incomplete features, especially in monitoring the food intake of diabetes mellitus sufferers. Therefore, it was necessary to develop adequate applications to helped people with diabetes mellitus in self-monitoring their disease which also acted as a personal health recorded.*

Objective: *This design aims to design a mobile-based application for diabetes mellitus sufferers.*

Methods : *The method used in this design was the SDLC development method with the waterfall model. This design was based on literature studies and exploratory studies to analyze user needs with the design subject for diabetes mellitus sufferers. The design objected was a mobile-based application for people with diabetes mellitus*

Results : *The interface design produces a Unified Modeling Language (UML) design consisting of used case diagrams and activity diagrams, databases, data dictionaries, and application interface displays. The design includes several features in diabetes mellitus self-monitoring.*

Conclusion : *An application design have had been produced according to the needs of diabetes mellitus sufferers consisting of process design, database design, and user interface design.*

Keywords: *diabetes mellitus, mobile, user interface*