

ABSTRAK

Kebutuhan informasi wisata mengenai daerah wisata tertentu sering dicari pada saat orang hendak melakukan perjalanan atau sudah berada dalam daerah wisata. Penerapan teknologi *PDA* untuk memenuhi kebutuhan tersebut dapat dilakukan dengan membangun sebuah aplikasi yang dapat mengakses informasi wisata melalui internet. Tujuan dari aplikasi ini yaitu untuk membantu pengguna dalam mendapatkan informasi wisata yang diinginkan di Kota Bandung. Aplikasi mengakses sebuah *web service* untuk mendapatkan informasi wisata tertentu. Aplikasi dibangun dengan menggunakan bahasa pemrograman *C#*, sehingga untuk menjalankan aplikasi dibutuhkan *.NET Compact framework 2.0* pada *PDA* pengguna. *Database Engine* yang digunakan berupa database berorientasi obyek yaitu *db4o*. Aplikasi menggunakan data peta dari *OpenStreetMap* Fitur-fitur yang terdapat dalam aplikasi ini yaitu pencarian tempat, lihat peta, komentar, lihat event, *history* (log kunjungan), rute. Pencarian rute menggunakan komponen pihak ketiga dari *Bandung On The Road* yang menggunakan algoritma pencarian *A**. Aplikasi akan bernaung dalam lisensi *GPL* berdasarkan persyaratan dari penggunaan *db4o* dan *OpenStreetMap*.

Kata Kunci : *PDA*, informasi wisata, *db4o*, *OpenStreetMap*, *Bandung On The Road*

ABSTRACT

Demand for travel information about a certain travel destination is high when people plan their travel or when they are already in the location. Using PDA technology to fulfill the demand can be done using an application accessing an information resource through the internet. The goal of this application is as a solution for people to find travel related information in Bandung. The application that is developed in this project use web service to retrieve requested information and display it to user. This application is developed using C# thus requiring the users' PDAs to have .NET Compact framework 2.0 to run this application. The application uses db4o as database engine both in webservice and PDA client. Available features are searching, map viewer, comments, event, history of visited, route. Route feature use a third party component from Bandung On The Road that implements A search algorithm. Application is under GPL due to the use of db4o and OpenStreetMap*

Keywords : PDA, travel information, db4o, OpenStreetMap, Bandung On The Road

DAFTAR ISI

| | |
|---|----------|
| LEMBAR PENGESAHAN..... | I |
| | I |
| PERNYATAAN ORISINALITAS LAPORAN..... | II |
| | II |
| KATA PENGANTAR..... | III |
| LEMBAR PERNYATAAN PERSETUJUAN PUBLIKASI KARYA ILMIAH UNTUK KEPENTINGAN AKADEMIS..... | IV |
| | IV |
| ABSTRAK..... | V |
| ABSTRACT..... | VI |
| DAFTAR ISI..... | VII |
| DAFTAR GAMBAR..... | IX |
| DAFTAR TABEL..... | XI |
| DAFTAR SIMBOL..... | XI |
| BAB I | |
| PERSYARATAN PRODUK..... | 1 |
| I.1 PENDAHULUAN..... | 1 |
| <i>I.1.1 Tujuan.....</i> | <i>1</i> |
| <i>I.1.2 Ruang Lingkup Proyek.....</i> | <i>1</i> |
| <i>I.1.3 Definisi, Akronim dan Singkatan.....</i> | <i>2</i> |
| <i>I.1.4 Overview.....</i> | <i>2</i> |
| I.2 GAMBARAN KESELURUHAN..... | 4 |
| <i>I.2.1 Perspektif Produk.....</i> | <i>4</i> |
| <i>I.2.2 Fungsi Produk.....</i> | <i>4</i> |
| <i>I.2.3 Karakteristik Pengguna.....</i> | <i>4</i> |
| <i>I.2.4 Batasan – Batasan.....</i> | <i>4</i> |
| BAB II | |
| SPEKIFIKASI PRODUK..... | 5 |
| II.1 PERSYARATAN ANTARMUKA EKSTERNAL..... | 5 |
| <i>II.1.1 Antarmuka dengan Pengguna.....</i> | <i>5</i> |
| <i>II.1.2 Antarmuka Perangkat Keras.....</i> | <i>5</i> |
| <i>II.1.3 Antarmuka Perangkat Lunak.....</i> | <i>6</i> |
| II.2 FITUR PRODUK PERANGKAT LUNAK..... | 6 |
| <i>II.2.1 Pencarian Tempat.....</i> | <i>6</i> |
| <i>II.2.2 Lihat Peta.....</i> | <i>6</i> |
| <i>II.2.3 History.....</i> | <i>6</i> |
| <i>II.2.4 Komentar.....</i> | <i>6</i> |
| <i>II.2.5 Lihat Event.....</i> | <i>6</i> |
| II.3 FITUR WEB SERVICE..... | 7 |

| | |
|--|------|
| II.3.1 Login..... | 7 |
| II.3.2 Manajemen Tempat..... | 7 |
| II.3.3 Manajemen User..... | 7 |
| II.3.4 Manajemen Event..... | 7 |
| BAB III | |
| DESAIN PERANGKAT LUNAK..... | 8 |
| III.1 DESAIN PERANGKAT LUNAK SECARA KESELURUHAN..... | 8 |
| III.1.1 Use Case Diagram..... | 8 |
| III.1.2 Activity Diagram..... | 21 |
| III.1.3 Sequence Diagram..... | 34 |
| III.1.4 Class Diagram..... | 38 |
| III.2 DESAIN ARSITEKTUR PERANGKAT LUNAK..... | 45 |
| III.2.1 Komponen Perangkat Lunak..... | 45 |
| III.2.2 Desain Antar Muka..... | 47 |
| BAB IV | |
| PENGEMBANGAN SISTEM..... | 49 |
| IV.1 PERENCANAAN TAHAP IMPLEMENTASI..... | 49 |
| IV.1.1 Implementasi Komponen Perangkat Lunak..... | 49 |
| IV.2 PERJALANAN TAHAP IMPLEMENTASI..... | 54 |
| IV.2.1 Implementasi Bottom Up..... | 54 |
| IV.2.2 Debugging..... | 54 |
| IV.3 ULASAN REALISASI ANTAR MUKA PENGGUNA..... | 55 |
| IV.3.1 Client PDA..... | 55 |
| IV.3.2 Client Admin..... | 58 |
| BAB V | |
| TESTING DAN EVALUASI SISTEM..... | 61 |
| V.1 RENCANA PENGUJIAN SISTEM TERIMPLEMENTASI..... | 61 |
| V.1.1 Test Case..... | 61 |
| V.2 PERJALANAN METODOLOGI PENGUJIAN..... | 64 |
| V.2.1 Black Box | 64 |
| V.2.2 Survei dengan Target Pengguna Aplikasi PDA..... | 68 |
| V.2.3 Survei dengan target Pengguna Jasa Web Service..... | 75 |
| V.2.4 Analisa Aplikasi dan Server..... | 75 |
| V.3 ULASAN HASIL EVALUASI..... | 78 |
| BAB VI | |
| KESIMPULAN DAN SARAN..... | 80 |
| VI.1 KETERKAITAN ANTARA KESIMPULAN DAN HASIL EVALUASI..... | 80 |
| VI.2 KETERKAITAN ANTARA SARAN DAN KESIMPULAN..... | 81 |
| VI.3 RENCANA PERBAIKAN TERHADAP SARAN YANG DIBERIKAN..... | 81 |
| DAFTAR PUSTAKA..... | VIII |
| LAMPIRAN A | |
| HASIL IMPLEMENTASI..... | IX |
| LAMPIRAN B | |
| HASIL SURVEI | X |



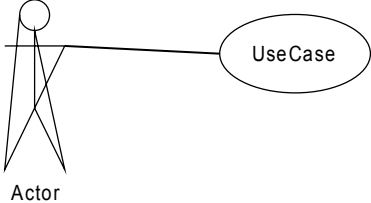
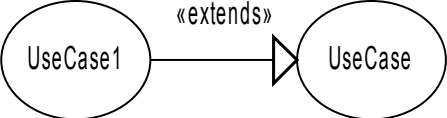
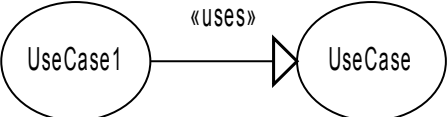
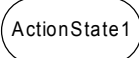



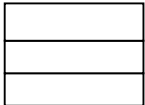
DAFTAR GAMBAR

| | |
|--|----|
| GAMBAR III.1 DIAGRAM USE CASE SISI CLIENT..... | 8 |
| GAMBAR III. 2 USE CASE SISI WEB SERVICE..... | 9 |
| GAMBAR III. 3 PACKAGE USE CASE MANAGE PLACE..... | 10 |
| GAMBAR III. 4 PACKAGE USE CASE MANAGE USER..... | 10 |
| GAMBAR III. 5 PACKAGE USE CASE MANAGE EVENT..... | 10 |
| GAMBAR III.6 DIAGRAM ACTIVITY SEARCH PLACE..... | 21 |
| GAMBAR III.7 DIAGRAM ACTIVITY SEARCH PLACE SISI WEB SERVICE..... | 21 |
| GAMBAR III.8 DIAGRAM ACTIVITY VIEW COMMENTS..... | 22 |
| GAMBAR III.9 DIAGRAM ACTIVITY VIEW EVENTS | 23 |
| GAMBAR III.10 DIAGRAM ACTIVITY VIEW EVENTS SISI WEB SERVICE..... | 23 |
| GAMBAR III.11 DIAGRAM ACTIVITY VIEW MAP..... | 24 |
| GAMBAR III.12 DIAGRAM ACTIVITY HISTORY..... | 24 |
| GAMBAR III.14 DIAGRAM ACTIVITY VIEW PLACE..... | 25 |
| GAMBAR III.15 DIAGRAM ACTIVITY VIEW PLACE SISI WEB SERVICE..... | 25 |
| GAMBAR III.13 DIAGRAM ACTIVITY ADD TO CONTACT..... | 26 |
| GAMBAR III.16 DIAGRAM ACTIVITY ADD COMMENT..... | 27 |
| GAMBAR III.17 DIAGRAM ACTIVITY ADD COMMENT SISI WEBSERVICE..... | 27 |
| GAMBAR III.20 DIAGRAM ACTIVITY EDIT PLACE..... | 28 |
| GAMBAR III.19 DIAGRAM ACTIVITY CREATE PLACE..... | 29 |
| GAMBAR III.18 DIAGRAM ACTIVITY LOGIN..... | 29 |
| GAMBAR III.21 DIAGRAM DELETE PLACE..... | 30 |
| GAMBAR III.22 DIAGRAM CREATE USER..... | 30 |
| GAMBAR III.23 DIAGRAM EDIT USER..... | 31 |
| GAMBAR III.24 DIAGRAM DELETE USER..... | 31 |
| GAMBAR III.25 DIAGRAM CREATE EVENT..... | 32 |
| GAMBAR III.26 DIAGRAM EDIT EVENT..... | 32 |
| GAMBAR III.27 DIAGRAM DELETE EVENT..... | 32 |
| GAMBAR III.28 DIAGRAM SEQUENCE SEARCH PLACE..... | 34 |

| | |
|---|----|
| GAMBAR III.29 DIAGRAM SEQUENCE ADD COMMENT..... | 35 |
| GAMBAR III.30 DIAGRAM SEQUENCE ADD CONTACT..... | 35 |
| GAMBAR III.31 DIAGRAM SEQUENCE VIEW EVENTS..... | 36 |
| GAMBAR III.32 DIAGRAM SEQUENCE VIEW MAP..... | 36 |
| GAMBAR III.33 DIAGRAM SEQUENCE VIEW PLACE..... | 37 |
| GAMBAR III.34 DIAGRAM SEQUENCE HISTORY..... | 37 |
| GAMBAR III.35 DIAGRAM CLASS PACKAGE GUI..... | 38 |
| GAMBAR III.36 DIAGRAM CLASS PACKAGE SERVICE..... | 39 |
| GAMBAR III.37 DIAGRAM CLASS PACKAGE DATABASE..... | 42 |
| GAMBAR III.38 DIAGRAM KOMPONEN APLIKASI..... | 45 |
| GAMBAR III.39 DESAIN ANTAR MUKA MAINFORM..... | 47 |
| GAMBAR III.40 DESAIN ANTAR MUKA RESULT FORM..... | 48 |
| GAMBAR III.41 DESAIN ANTAR MUKA PLACE FORM..... | 48 |
| GAMBAR IV.1 TAMPILAN MAINFORM..... | 55 |
| GAMBAR IV.2 TAMPILAN RESULT FORM..... | 56 |
| GAMBAR IV.3 TAMPILAN FORM PLACE..... | 57 |
| GAMBAR IV.4 TAMPILAN MAP..... | 57 |

Daftar Tabel

DAFTAR SIMBOL

| | |
|---|-----------------|
|  | <i>Actor</i> |
|  | <i>Use Case</i> |
|  | <i>Use</i> |
|  | <i>Extend</i> |
|  | <i>Include</i> |
|  | <i>Activity</i> |
|  | <i>Initial</i> |
|  | <i>Final</i> |
|  | <i>Decision</i> |
|  | <i>Class</i> |