

BAB IV

RANCANGAN SISTEM DAN PROGRAM USULAN

4.1 Analisis kebutuhan Software

A. Tahapan Analisis

Aplikasi *Eletronik Medicar Record* adalah suatu aplikasi untuk pencatatan rekam medis (medical record) secara komputerisasi berbasis web menggunakan intranet. Dokter dan admin melakukan input data pada aplikasi ini. Berikut ini spesifikasi kebutuhan dari aplikasi Elektronik Medical Record :

Halaman depan :

A1. Pengguna dapat melakukan Login sesuai kebutuhan

Halaman Admin :

B1. Admin dapat mengelola data pasien

B2. Admin dapat mengelola data dokter

B3. Admin dapat mengelola data obat

Halaman Dokter :

C1. Dokter dapat melihat rekap medis pasien

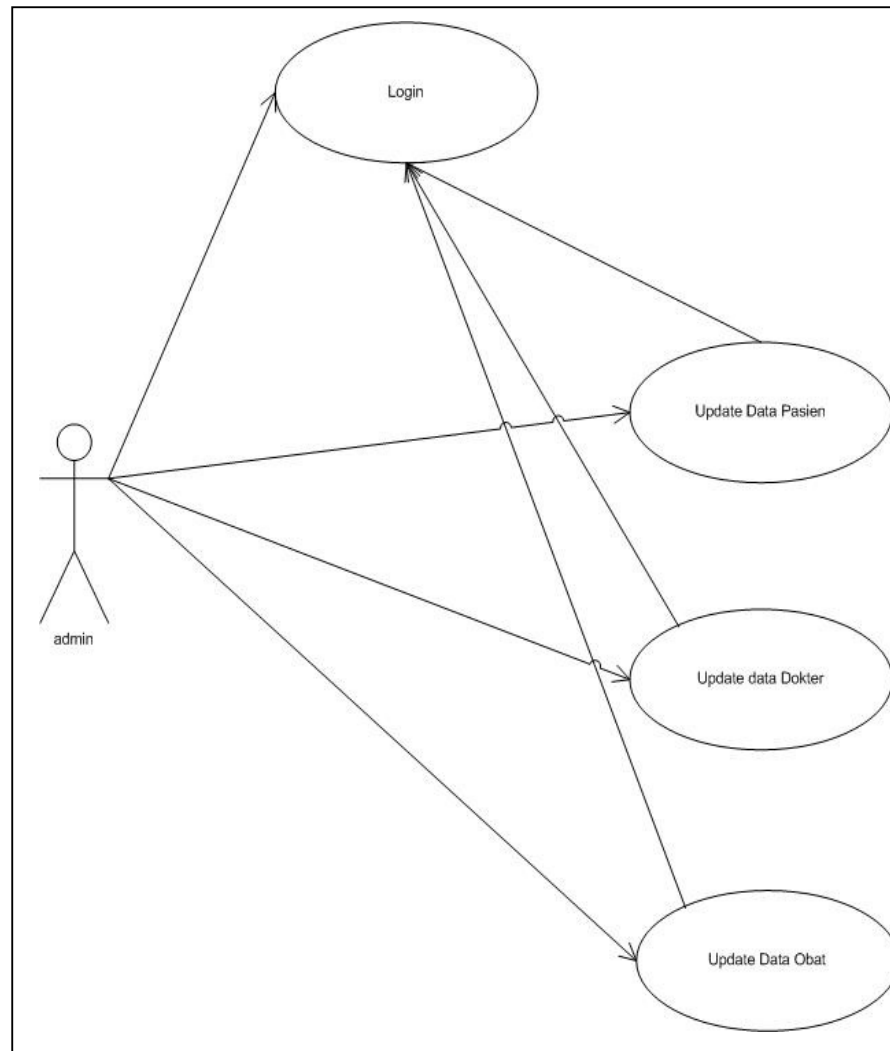
C2. Dokter dapat menambah data rekap medis pasien

C3. Dokter dapat melihat statistik pemeriksaan

C4. Dokter dapat melihat Statistik Pemeriksaan

B. Use Case Diagram

1. Use case diagram aplikasi elektronik medical record halaman admin



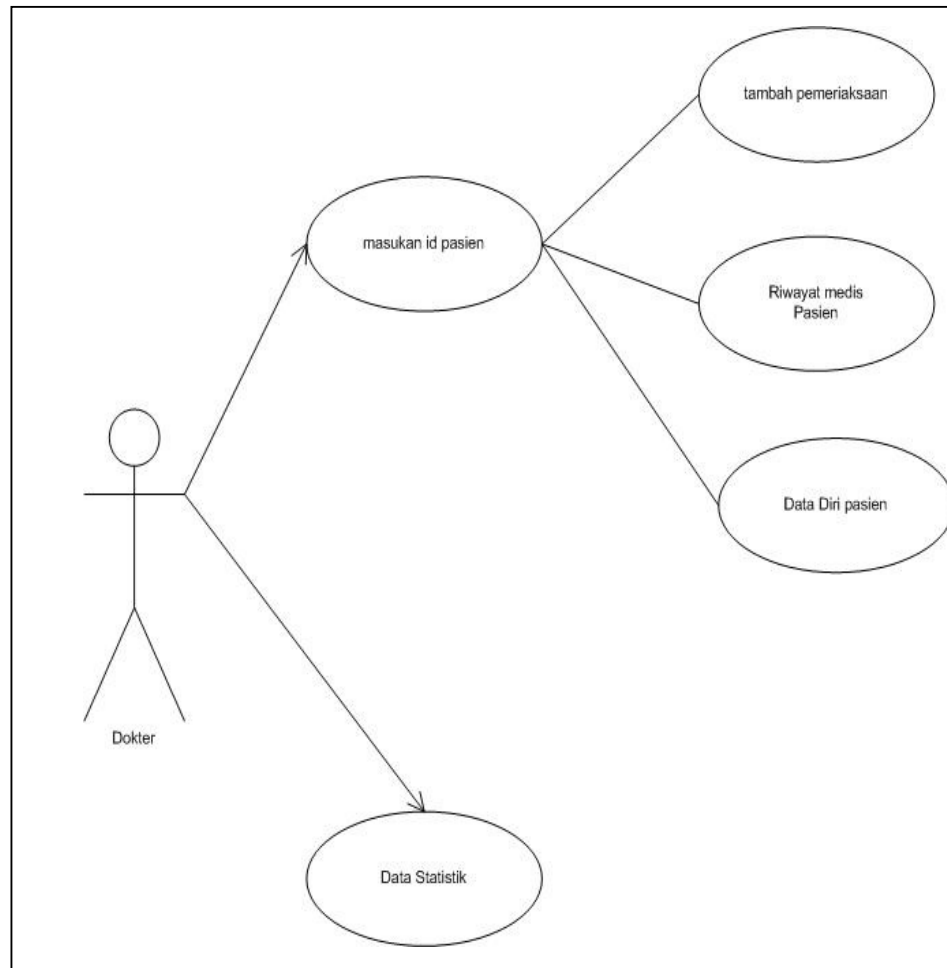
Gambar IV.1 Use case halaman admin

Deskripsi *Use Case* diagram aplikasi erlektronik medical record halaman admin

Table IV.1 Deskripsi *uce case* admin

Use Case Name	Checkout
Requirements	B1, B2, B3
Pre-Condition	Admin ingin mengupdate data pasien
Post-Condition	Data Paisen baru tersimpan
Failed end Condition	Admin merest input data pasien baru karna ada kelahan dalam pengimputan data pasien
Primary Actors	Admin
Main Flow / Basic Patch	1. Admin Melakukan Login admin 2. Admin memiliah Update Paisen 3. Alplikasi menampilkan update data pasien 4. Admin memasukan data pasien baru dan menabahkan 5. Sistem akan menampilkan data pasien telah selesai di simpan dan menampilkan ide pasien untuk di catat

2. Use case diagram aplikasi elektronik medical record halaman Dokter



Gambar IV.2 Use Case Halaman Dokter

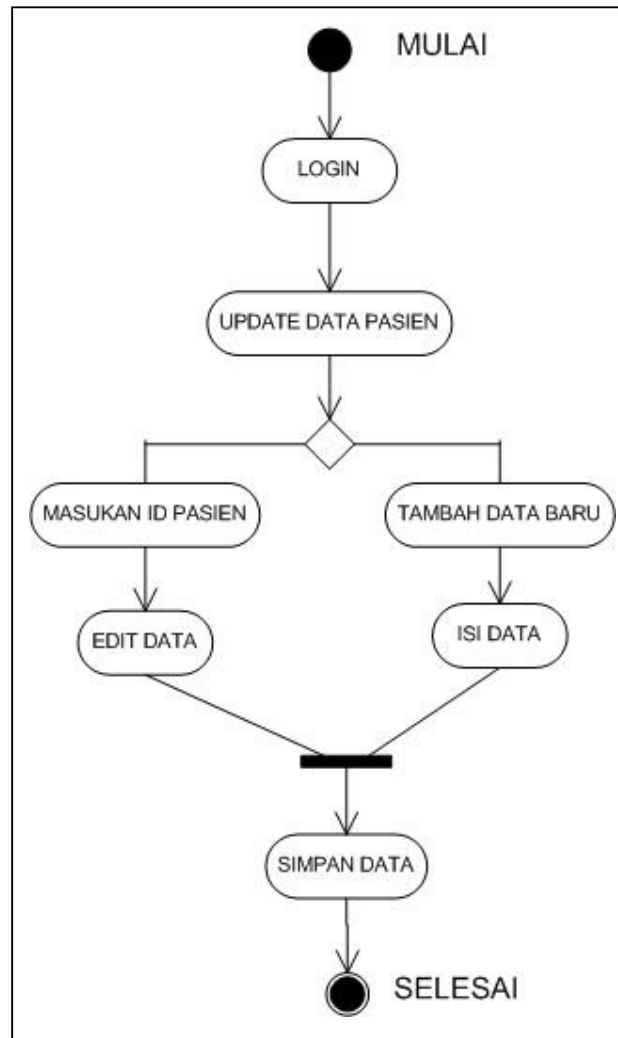
Deskripsi *Use Case* diagram aplikasi erlektronik medical record halaman admin

Tabel IV.2 Deskripsi *use case* dokter

Use Case Name	ChekOut
Requirements	C1, C2, C3
Pre-Condition	Dokter ingin menambah hasil pemeriksaan
Post-Condition	Data Pemeriksaan berhasil di simpan
Failed end Condition	Data pemeriksaan batal di simpan karna ada kesalahan dalam pengisian data pasien
Primary Actors	Dokter
Main Flow / Basic Patch	1. Dokter melakukan login 2. Dokter memasukan id pasien 3. Dokter masuk ke dalam tambah pemeriksaan 4. Dokter masukan data pemerisaan dan men submit 5. Data berhasil di simpan

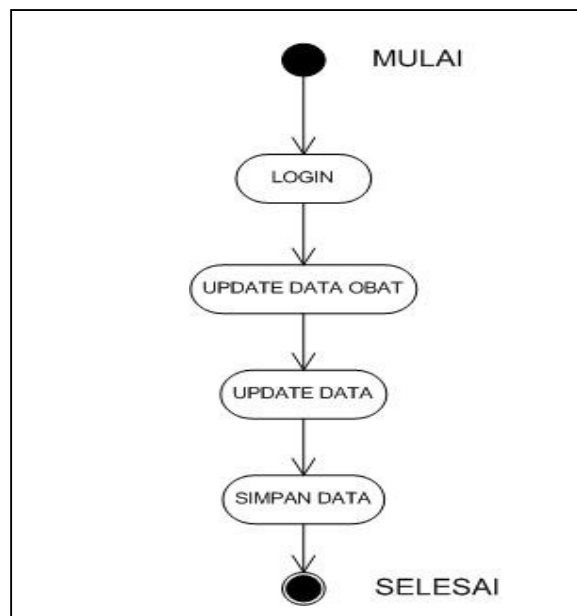
C. Aktiviti Diagram

1. Aktiviti Diagram Menambahkan data pasien



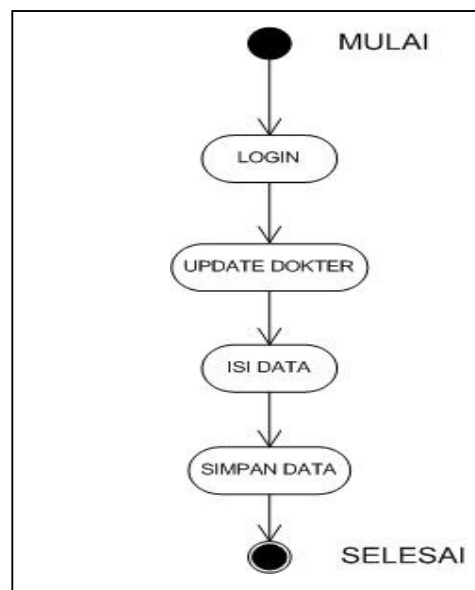
Gambar IV.3 Aktiviti diagram menabab pasien

2. Activity Diagram Update Data Obat



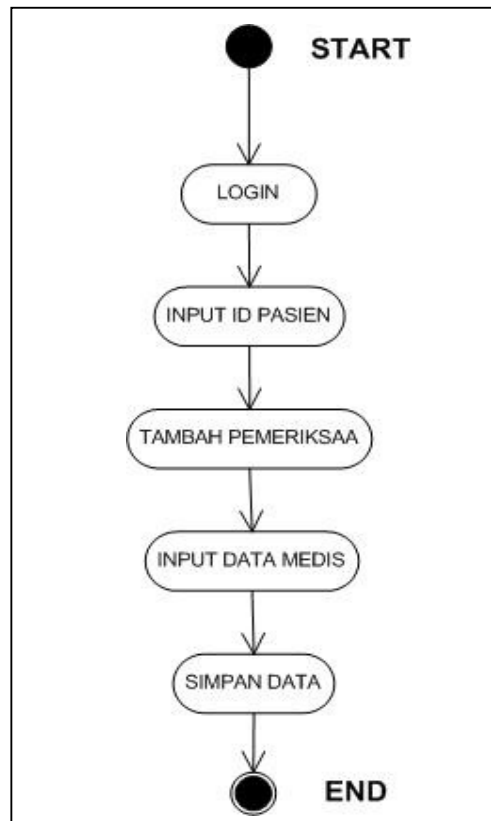
Gambar IV.4 Activity diagram update data obat

3. Activity Diagram Tambah Dokter



Gambar IV.5 Activity diagram tambah dokter

4. Activity diagram Tambah pemeriksaan

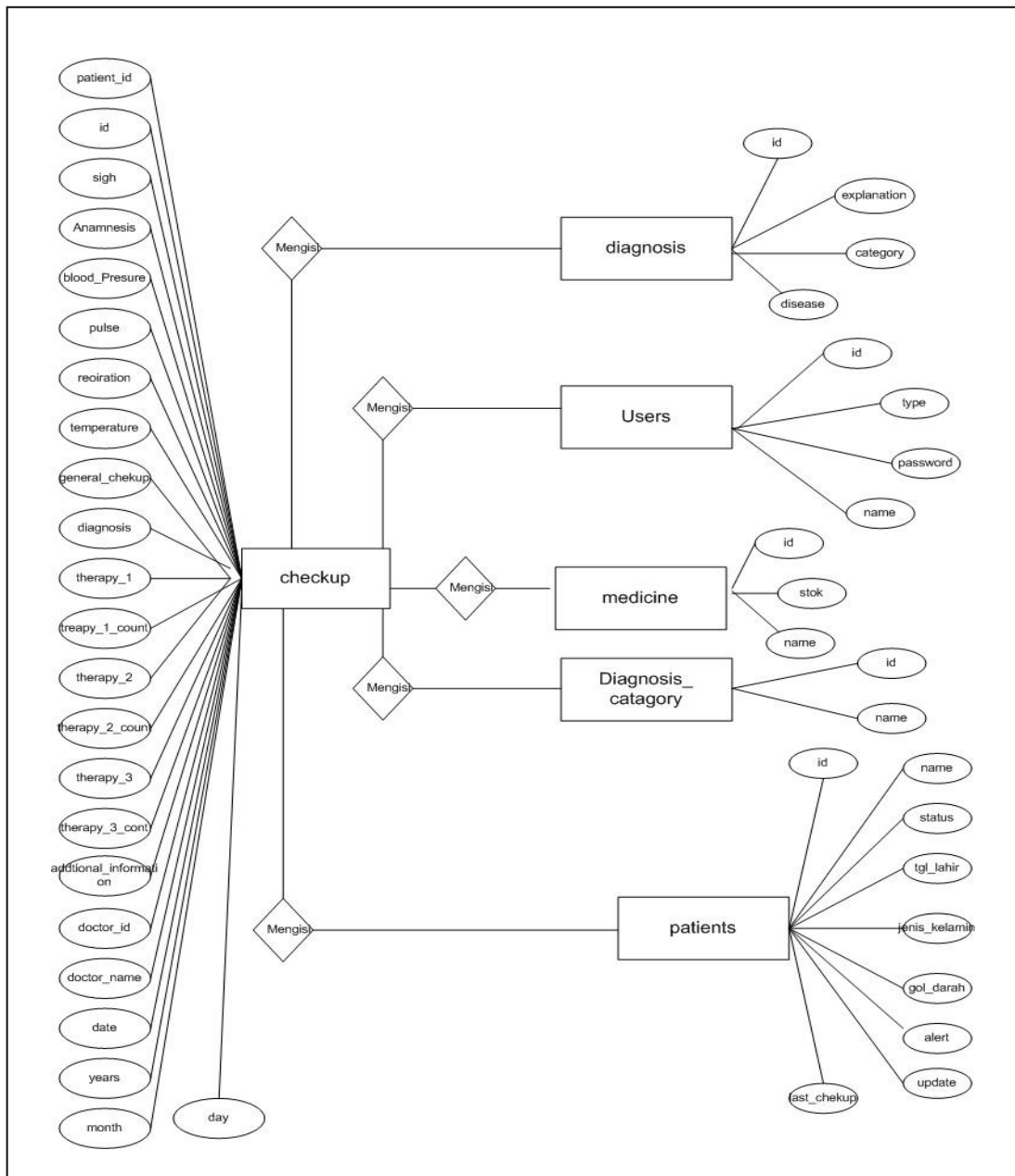


Gambar IV.6 Activity diagram tambah pemeriksaan

4.2 Desain

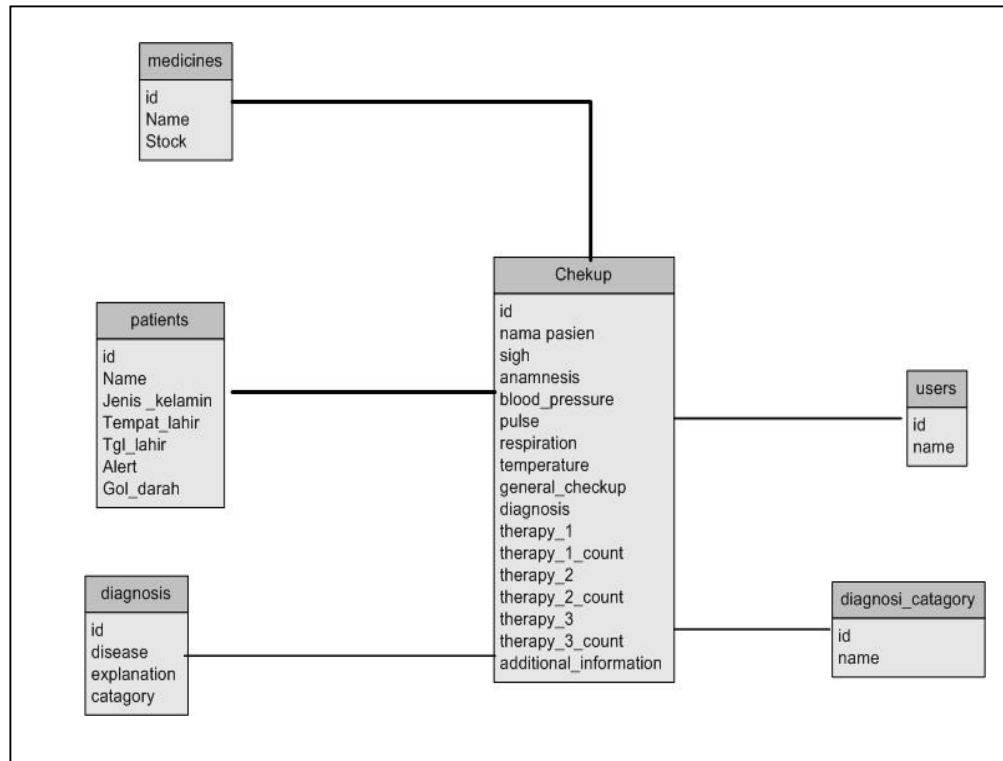
4.2.1 Data Base

1. Entity Relationship Diagram



Gambar IV. 7 Diagram ERD

2. Logical Record Structure



Gambar IV.8 Logical Record Structure

3. Spesifikasi Data Base

A. Spesifikasi file tabel Chekup

Nama Database : Chekup

Nama File : Tambah pemeriksaan

Akronim : checkup.sql

Tipe File : File Master

Panjang record : 2,4 KB

File Kunci : id

Tabel IV.3
Spesifikasi file Checkup

No.	Elemen Data	Nama Field	Type	Size	Keterangan
1	-	id	Varchar	225	<i>Auto_increment</i>
2	No. IDE	Patient_id	Int	10	Primary key
3	Keluhan Utama	Sigh	text	-	
4	Anamnesis	Anamnesis	text	-	
5	TD	Blood_pressure	varchar	25	
6	Nadi	Pulse	varchar	25	
7	Resp	respiration	varchar	25	
8	Suhu	temperature	varchar	25	
9	PX Umum	general_checkup	text	-	
10	Diagnosis	diagnosis	Int	10	
11	Trapi I	therapy_1	Int	10	
12	Trapi Count I	therapy_1_count	varchar	25	
13	Trapi II	therapy_2	int	10	
14	Trapi Count II	therapy_2_count	varchar	25	
15	Trapi III	therapy_3	int	10	
16	Trapi Count III	therapy_3_count	varchar	25	
17	Informasi Tambahan	additional_information	text	-	

B. Spesifikasi file tabel Medicines

Nama Database : Medicines

Nama File : Tanbah Obat-Obatan

Akronim : medicines.sql

Tipe File : File Master

Panjang record : 2 KB

File Kunci : id

Tabel IV.4
Spesifikasi file Medicine

No.	Elemen Data	Nama Field	Type	Size	Keterangan
1		Id	Int	10	<i>Auto_increment</i>
2	Nama Obat	Name	Varchar	255	
3	Stok	Stock	Int	10	

C. Spesifikasi file tabel patients

Nama Database : patients

Nama File : Update data pasien

Akronim : patiente.sql

Tipe File : File master

Panjang record : 2 KB

File Kunci : id

Tabel IV.5
Spesifikasi file patients

No.	Elemen Data	Nama Field	Type	Size	Keterangan
1	ID Pasien	Id	Varchar	4	<i>Auto_increment</i>
2	Nama Pasien	Name	Varchar	255	

3	Jenis Kelamin	Jenis_kelamin	Char	1	
4	Tempat Lahir	Tempat_lahir	Varchar	50	
5	Tanggal Lahir	Tgl_lahir	Date	-	
6	Alret	Alert	Text	-	
7	Golongan Darah	Gol_darah	char	2	

D. Spesifikasi file tabel Users

Nama Database : Users

Nama File : Tambah User Dokter

Akronim : users.sql

Tipe File : File Master

Panjang record : 2,1 KB

File Kunci : id

Tabel IV.6
Spesifikasi file Users

No.	Elemen Data	Nama Field	Type	Size	Keterangan
1	Nama lengkap Dokter	Name	Varchar	255	
2	Password Login		varchar	255	
3	-	Id	Int	10	<i>Auto_increment</i>

E. Spesifikasi file tabel Diagnosis

Nama Database : diagnosis

Nama File : diagnosis

Akronim : diagnosis.sql

Tipe File : File Master

Panjang record : 7,3 KB

File Kunci : id

Tabel IV.7

Spesifikasi file diagnosis

No.	Elemen Data	Nama Field	Type	Size	Keterangan
1	-	Id	int	10	auto_invre
2	-	Dsease	varchar	255	
3	-	Explanation	varchar	255	
4	-	category	int	10	

F. Spesifikasi file tabel Diagnosis Catagory

Nama Database : diagnosis_catagory

Nama File : Diagnosis catagory

Akronim : diagnosis_catagory.sql

Tipe File : File Master

Panjang record : 3,1 KB

File Kunci : id

Tabel IV.8

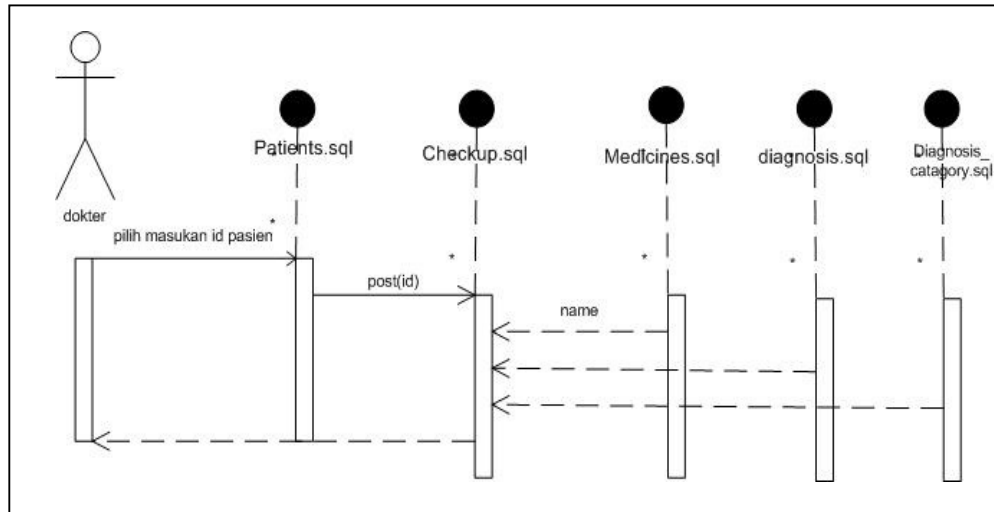
Spesifikasi file diagnosis_catagory

No.	Elemen Data	Nama Field	Type	Size	Keterangan
1	-	Id	Int	10	<i>Auto_increment</i>
2	-	Name	varchar	255	

4.2.2 Software Architecture

A. Sequence Diagram

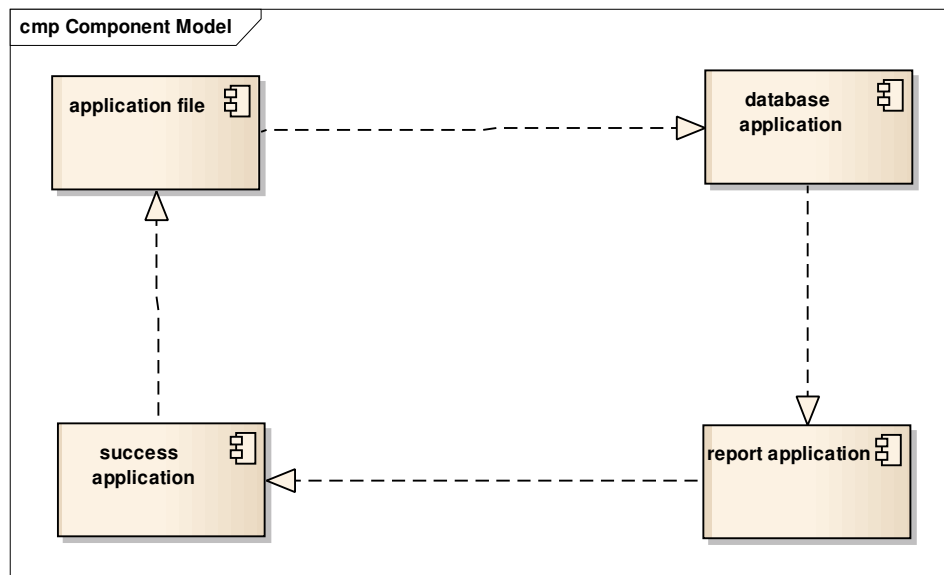
Sequence diagram tambah pemeriksaan



Gambar IV.9

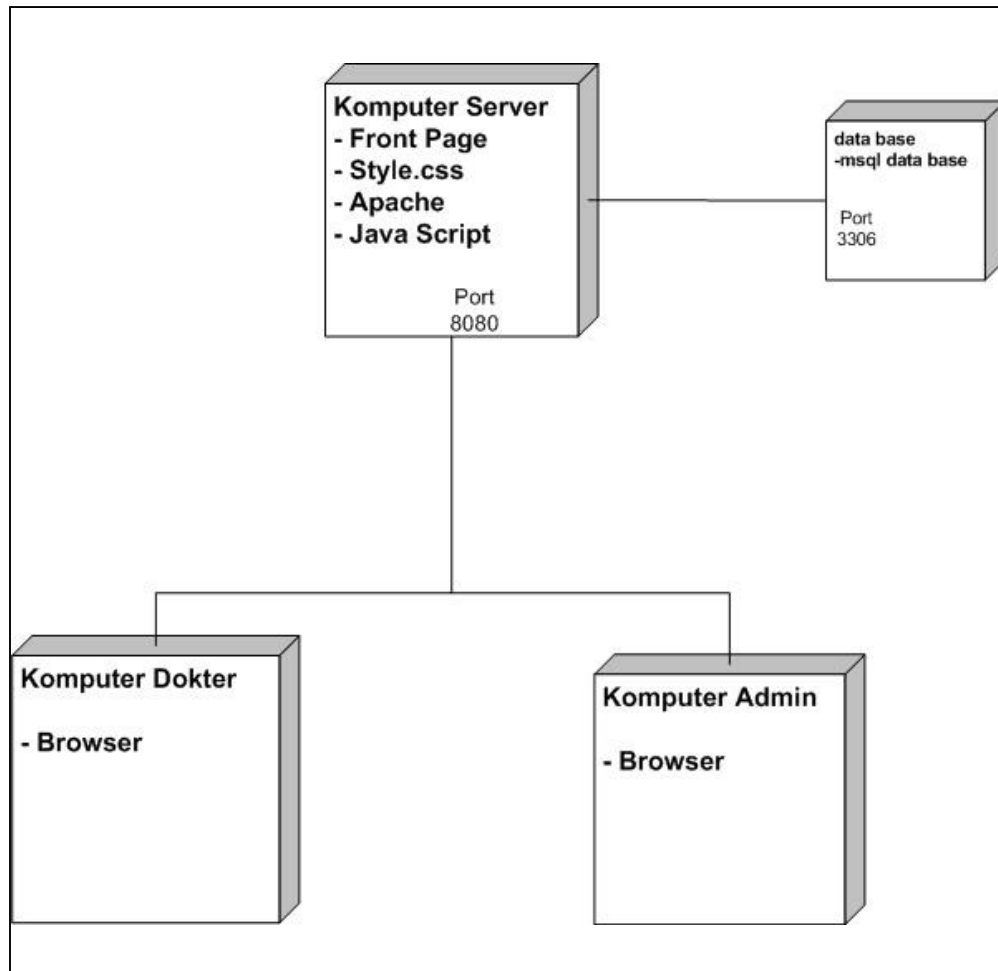
Sequence diagram tambah pemeriksaan

B. Component Diagram



Gambar.IV.10 Component Diagram.

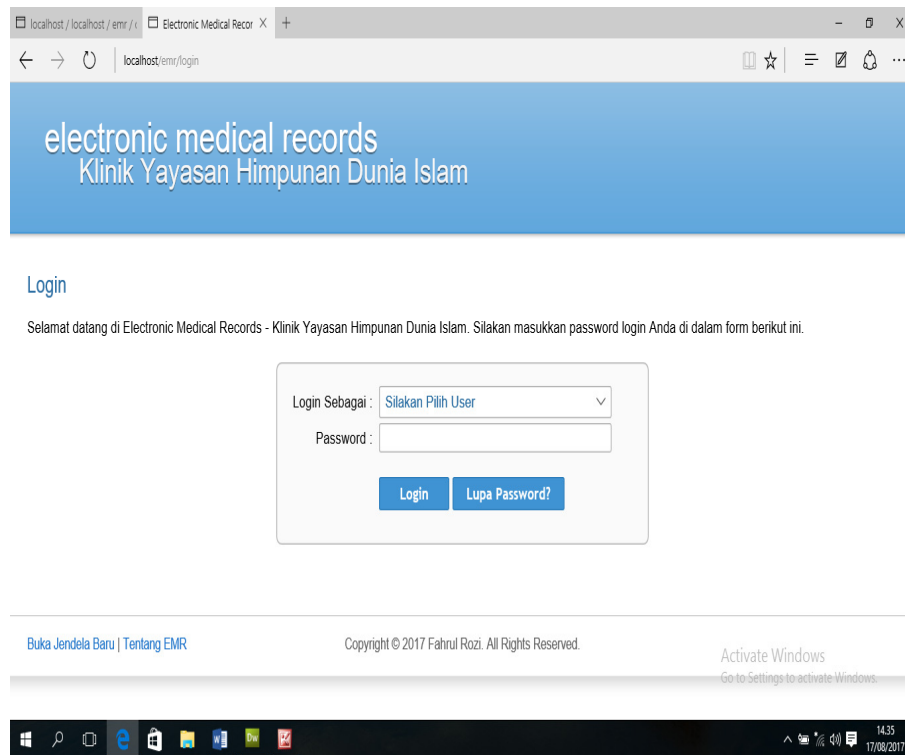
C. *Deployment Diagram*



Gambar IV.11 *Deployment Diagram*

4.2.3 User Interface

A. *Interface* Tampilan Awal



Gambar IV.12 *Interface* tampilan awal

B. Interface Halaman Admin Update Data Pasien

localhost / localhost / emr / x Electronic Medical Recor X

localhost/emr/staff

electronic medical records
Klinik Yayasan Himpunan Dunia Islam

Administrator Update Pasien

update pasien
update obat-obatan
update dokter
logout

Edit Data Diri Pasien
Silakan masukkan 4 digit ID Pasien di bawah ini untuk mengedit data diri pasien.

ID Pasien: [Lanjutkan >](#)

Tambah Pasien Baru
Silakan isi form di bawah ini untuk menambah pasien baru:

ID Pasien: ID Pasien ini tersedia

Nama Pasien:

Jenis Kelamin:

Tempat Lahir:

Tanggal Lahir:

Alergi:

Golongan Darah:

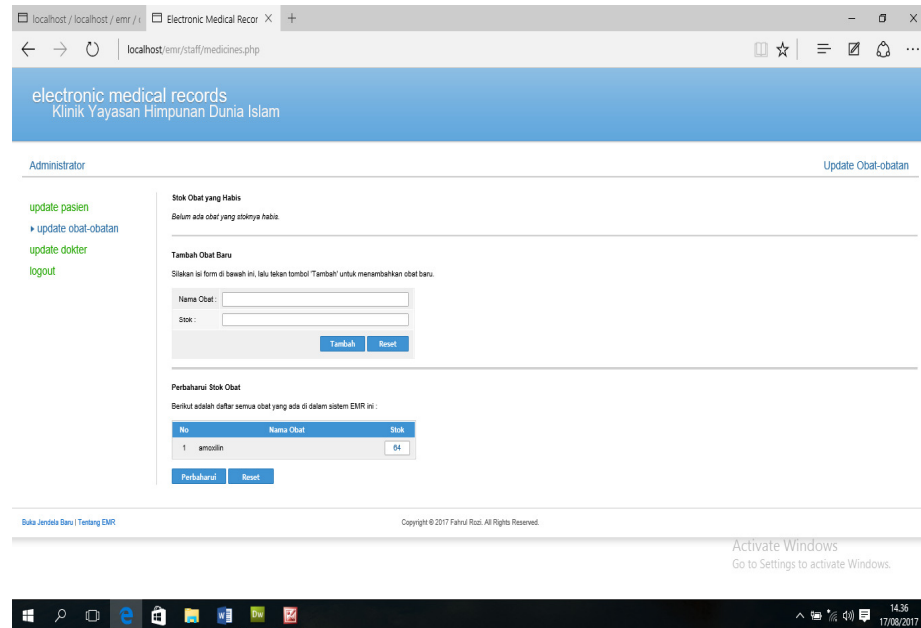
[Tambah](#) [Reset](#)

Buka Jendela Baru | Tentang EMR Copyright © 2017 Fahru Razi. All Rights Reserved. Activate Windows
Go to Settings to activate Windows.

14:36 17/02/2017

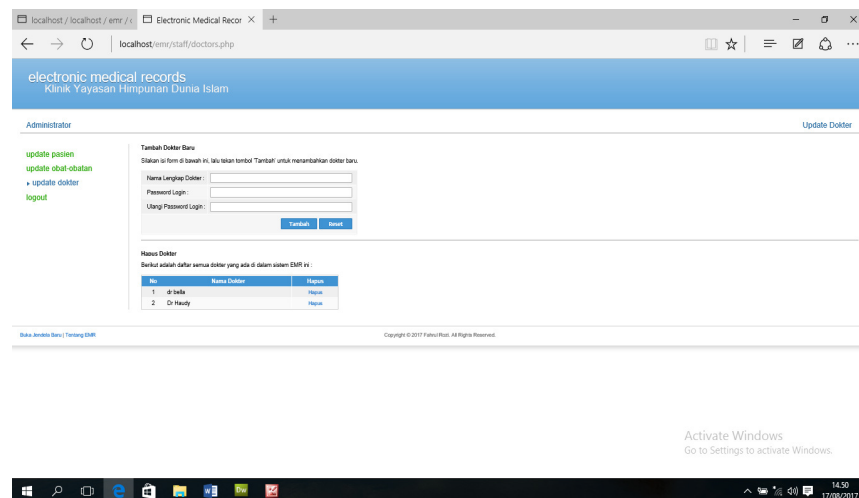
Gambar IV.13 Interface Update data pasien

C. Interface Halaman Admin Update Obat



Gambar. IV.14 Interface Admin Update Obat

D. Interface Admin Update Data Dokter



Gambar IV.15 Interface Update data dokter

E. Interface Dokter Tambah Pemeriksaan

electronic medical records
Klinik Yayasan Himpunan Dunia Islam

dr. bella

Tambah Pemeriksaan

Kamis, 17 Agustus 2017 - 2:38 PM

Silakan isi form di bawah ini untuk menambahkan data pemeriksaan :

Nama Pasien : aji
Nomor ID : 0001
Keluhan Utama :
Alert : gula
Anamnesis :
Pemeriksaan Fisik :
TD : mmHg Rasi : s/det Rasi : s/det Suhu : °C
Pt Unsur :
Diagnosis :
Terapi I :
Terapi II :
Terapi III :
Informasi Tambahan :
Simpan Revisi Batal

Activate Windows
Go to Settings to activate Windows.

Gambar IV.16 Interface dokter tambah pemeriksaan

F. Interface Daftar Riwayat Medis Pasien

electronic medical records
Klinik Yayasan Himpunan Dunia Islam

dr. bella

Riwayat Medis Pasien

Nama Pasien : aji
Nomor ID : 0001

Berikut adalah daftar riwayat medis yang terakhir kali tercatat :

No	Nomor Rekam	Tanggal Pemeriksaan	Keluhan Utama
1	00004	Sabtu, 12 Agustus 2017 - 2:38 PM	Sakit Kepala
2	00002	Sabtu, 20 Mei 2017 - 3:35 PM	Merorel
3	00001	Sabtu, 20 Mei 2017 - 3:32 PM	puang

Tampilkan Daftar Selengkapnya >

Filter daftar riwayat medis berdasarkan tanggal :

Bulan : Tanggal : Tahun : 2017

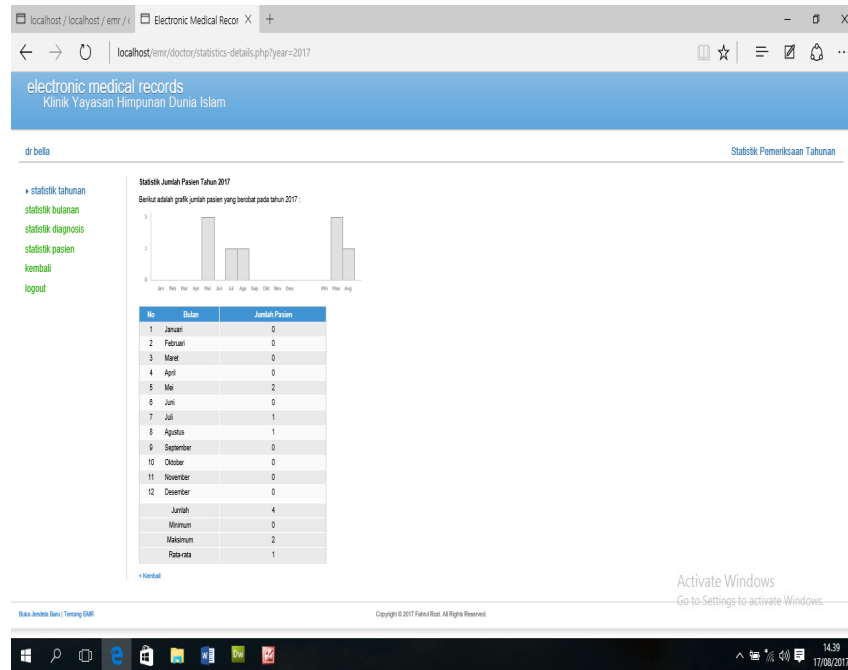
Cari daftar riwayat medis berdasarkan keyword :

Masukkan keyword :

Activate Windows
Go to Settings to activate Windows.

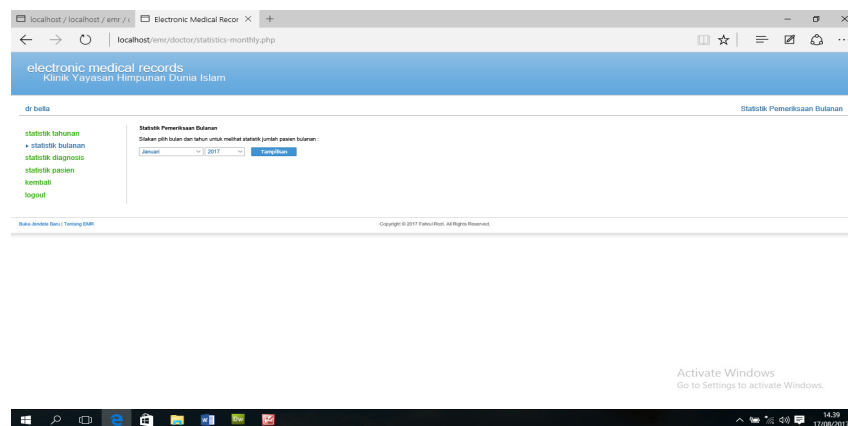
Gambar IV.17 Interface daftar riwayat medis pasien

G. Interface Data Statistik Tahunan



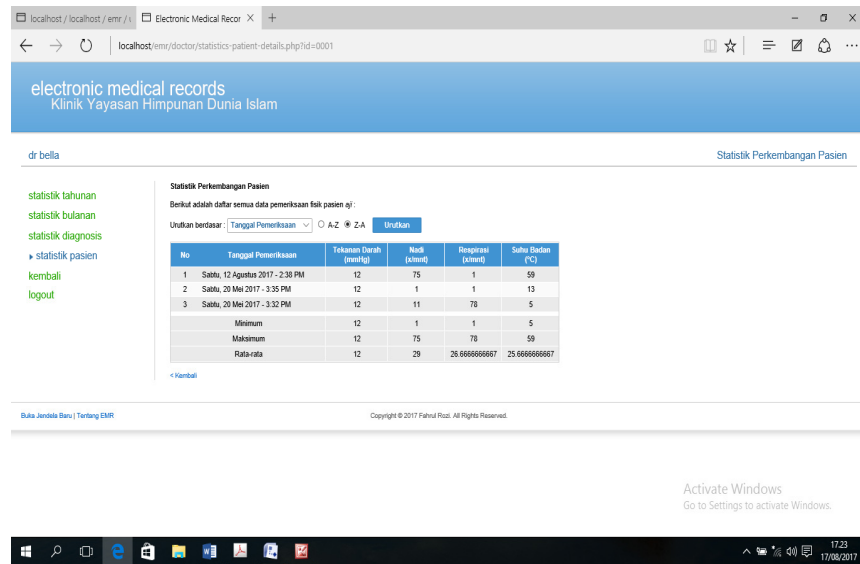
Gambar IV.18 Interface statistik tahunan

H. Interface Data Statistik Bulanan



Gambar IV.19 Interface Statistik Bulanan

I. *Interface* Data Statistik Pasien



The screenshot displays the 'Statistic Perkembangan Pasien' (Patient Development Statistics) page. The page header identifies the system as 'electronic medical records' for 'Klinik Yayasan Himpunan Dunia Islam'. The user is logged in as 'dr bella'. The sidebar on the left contains links for 'statistik tahunan', 'statistik bulanan', 'statistik diagnosis', 'statistik pasien', 'kembali', and 'logout'. The main content area shows a table of patient data with columns for 'No', 'Tanggal Pemeriksaan', 'Tekanan Darah (mmHg)', 'Gula (mg/dl)', 'Respirasi (x/menit)', and 'Suhu Badan (°C)'. The table lists three patients and their vital signs. Below the table, there are summary statistics: Minimum, Maximum, and Average (Rata-rata). The footer includes the text 'Buku Jendek Baru | Tentang EMR' and 'Copyright © 2017 Palnut Rizal. All Rights Reserved.'.

Statistic Perkembangan Pasien

Berikut adalah daftar semua data pemeriksaan fisik pasien aj:

Urutkan berdasarkan: Tanggal Pemeriksaan A-Z Z-A Urutkan

No	Tanggal Pemeriksaan	Tekanan Darah (mmHg)	Gula (mg/dl)	Respirasi (x/menit)	Suhu Badan (°C)
1	Sabtu, 12 Agustus 2017 - 2:38 PM	12	75	1	59
2	Sabtu, 20 Mei 2017 - 3:35 PM	12	1	1	13
3	Sabtu, 20 Mei 2017 - 3:32 PM	12	11	78	5
Minimum		12	1	1	5
Maximum		12	75	78	59
Rata-rata		12	29	25.6666666667	25.6666666667

Kembali

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17:23
17/08/2017

Gambar IV.20 *Interface* statistik data pasien

4.3 Code Generation

A. Form Login

```

<?php
/*
-----
Login Executor
-----
*/

include("../system/config/database-connection.php");
include("../system/config/system.php");
include("../system/lib/system.lib.php");
include("../system/lib/sidaba.lib.php");

session_start();

$userpwd = $_POST["password"];
$userid = $_POST["userid"];
$userpwd = removeBackSlashes($userpwd);

$data = new Sidaba(EMR_DS_HOSTNAME, EMR_DS_USERNAME, EMR_DS_PASSWORD);
if(!$data->isConnected()){header("location:../system/error/mysql-connection.php"); exit();}
$data->selectDatabase(EMR_DS_DBNAME); $data->selectTable(EMR_DS_TBL_USERS);
$pwd = $data->selectedRecordsList("password", "id", $userid);
$type = $data->selectedRecordsList("type", "id", $userid);
$name = $data->selectedRecordsList("name", "id", $userid);
if($data->getError()){header("location:../system/error/mysql-error.php?error=".$data->getError(1)); exit();}
$data->disconnect();

if($userpwd == $pwd[0]){
    $_SESSION["emr_usertype"] = $type[0];
    $_SESSION["emr_userid"] = $userid;
    $_SESSION["emr_username"] = $name[0];
    header("location:../");
}else{
    header("location:../login/?error=true");
}

```

Gambar IV.21 *Listing* program Form Login

B. Form Updat Data Pasien

```

<?php
/*
-----
Staff Page - Add New Patient
-----
*/

include("../system/config/database-connection.php");
include("../system/config/system.php");
include("../system/lib/system.lib.php");
include("../system/lib/sidaba.lib.php");

session_start();

$id = $_POST["id"];
$name = $_POST["name"];
$status = $_POST["status"];
$jenis_kelamin = $_POST["jenis_kelamin"];
$alert = $_POST["alert"];
$gol_darah = $_POST["gol_darah"];
$tempat_lahir = $_POST["tempat_lahir"];
$ttl_lahir_d = $_POST["day"];
$ttl_lahir_m = $_POST["month"];
$ttl_lahir_y = $_POST["year"];
$ttl_lahir = $ttl_lahir_y."-".$ttl_lahir_m."-".$ttl_lahir_d;

// -----

$year = getCurrentTime("Y"); $month = getCurrentTime("m"); $day = getCurrentTime("d");
$hour = getCurrentTime("h24"); $minute = getCurrentTime("n"); $second = getCurrentTime("s");
$month0 = $month; $day0 = $day;

if($month0<10) $month0 = "0".$month0;
if($day0<10) $day0 = "0".$day0;

$date = $year."-".$month0."-".$day0."-".$hour."-".$minute."-".$second;

// -----

$fields = array("id", "name", "status", "alert", "jenis_kelamin", "gol_darah", "tempat_lahir", "ttl_lahir", "updated");
$values = array($id, $name, $status, $alert, $jenis_kelamin, $gol_darah, $tempat_lahir, $ttl_lahir, $date);

// -----

$data = new Sidaba(EMR_DS_HOSTNAME, EMR_DS_USERNAME, EMR_DS_PASSWORD);
if(!$data->isConnected()){header("location:../system/error/mysql-connection.php"); exit();}
$data->selectDatabase(EMR_DS_DBNAME); $data->selectTable(EMR_DS_TBL_PATIENTS);
$data->addRecord($fields, $values);

if($data->getError()){header("location:../system/error/mysql-error.php?error=".$data->getError(1)); exit();}
$data->disconnect();

// -----

die("<script language='javascript'>location.replace('add-patient-success.php?id=$id');</script>");
?>

```

Gambar IV.22 Listing program Form Update data pasien

C. Form Update Obat Obatan

```
<?php
/*
-----
Staff Page - Add New Medicine
-----
*/

include("../system/config/database-connection.php");
include("../system/config/system.php");
include("../system/lib/system.lib.php");
include("../system/lib/sidaba.lib.php");

$name = $_POST["name"];
$stock = $_POST["stock"];

// -----

$fields = array("name", "stock");
$values = array($name, $stock);

// -----

$data = new Sidaba(EHR_DS_HOSTNAME, EHR_DS_USERNAME, EHR_DS_PASSWORD);
if(!$data->isConnected()){header("location:../system/error/mysql-connection.php"); exit();}
$data->selectDatabase(EHR_DS_DBNAME); $data->selectTable(EHR_DS_TBL_MEDICINES);
$data->addRecord($fields, $values);

if($data->getError()){header("location:../system/error/mysql-error.php?error=".$data->getError(1)); exit();}
$data->disconnect();

// -----

die("<script language='javascript'>location.replace('add-medicine-success.php');</script>");

?>
```

Gambar IV.23 *Listing* program Form Update Obat Obatan

D. Form Update Dokter

```
<?php
/*
-----
Staff Page - Add New Doctor
-----
*/
|
|
include("../system/config/database-connection.php");
include("../system/config/system.php");
include("../system/lib/system.lib.php");
include("../system/lib/sidaba.lib.php");

$name = $_POST["name"];
$password = $_POST["password"];

// -----

$fields = array("name", "password", "type");
$values = array($name, $password, "doctor");

// -----

$data = new Sidaba(EHR_DS_HOSTNAME, EHR_DS_USERNAME, EHR_DS_PASSWORD);
if(!$data->isConnected()){header("location:../system/error/mysql-connection.php"); exit();}
$data->selectDatabase(EHR_DS_DBNAME); $data->selectTable(EHR_DS_TBL_USERS);
$data->addRecord($fields, $values);

if($data->getError()){header("location:../system/error/mysql-error.php?error=".$data->getError(1)); exit();}
$data->disconnect();

// -----

die("<script language='javascript'>location.replace('add-doctor-success.php');</script>");

?>
```

Activate Windows
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Gambar IV.24 *Listing* program Form Update Dokter

E. Form Update Data Pemeriksaan

```

<?php
/*
-----
Doctor Page - Add New Check Up Executor
-----
*/

include("../system/config/database-connection.php");
include("../system/config/system.php");
include("../system/lib/system.lib.php");
include("../system/lib/sidaba.lib.php");

session_start();

$doctorId = $_SESSION["emr_userid"];
$doctorName = $_SESSION["emr_username"];

$patientid = $_SESSION["emr_patientid"];
$sigh = $_POST["sigh"];
$anamnesis = $_POST["anamnesis"];
$bloodpressure = $_POST["blood_pressure"];
$pulse = $_POST["pulse"];
$respiration = $_POST["respiration"];
$temperature = $_POST["temperature"];
$generalcheckup = $_POST["general_checkup"];
$diagnosiscategory = $_POST["diagnosis_category"];
$diagnosis = $_POST["diagnosis"];
$diagnosisOther = $_POST["diagnosis_other"];
$therapy1 = $_POST["therapy_1"];
$therapy1a = $_POST["therapy_1a"]; $therapy1b = $_POST["therapy_1b"]; $therapy1c = $_POST["therapy_1c"];
$therapy2 = $_POST["therapy_2"];
$therapy2a = $_POST["therapy_2a"]; $therapy2b = $_POST["therapy_2b"]; $therapy2c = $_POST["therapy_2c"];
$therapy3 = $_POST["therapy_3"];
$therapy3a = $_POST["therapy_3a"]; $therapy3b = $_POST["therapy_3b"]; $therapy3c = $_POST["therapy_3c"];
$additionalinformation = $_POST["additional_information"];

// -----

$therapyR = explode(",",$therapy1); $therapy1 = $therapyR[0];
$therapyR = explode(",",$therapy2); $therapy2 = $therapyR[0];
$therapyR = explode(",",$therapy3); $therapy3 = $therapyR[0];

$therapy1count = $therapy1a." x ".$therapy1b." x ".$therapy1c;
$therapy2count = $therapy2a." x ".$therapy2b." x ".$therapy2c;
$therapy3count = $therapy3a." x ".$therapy3b." x ".$therapy3c;

if($therapy1==""){$therapy1a = 0; $therapy1b = 0; $therapy1c = 0; $therapy1count = "";}
if($therapy2==""){$therapy2a = 0; $therapy2b = 0; $therapy2c = 0; $therapy2count = "";}
if($therapy3==""){$therapy3a = 0; $therapy3b = 0; $therapy3c = 0; $therapy3count = "";}

$therapy1n = $therapy1a*$therapy1b*$therapy1c;
$therapy2n = $therapy2a*$therapy2b*$therapy2c;
$therapy3n = $therapy3a*$therapy3b*$therapy3c;

if($diagnosiscategory==1) $diagnosiscategory = 0;

// -----

$year = getCurrentTime("y"); $month = getCurrentTime("m"); $day = getCurrentTime("d");
$hour = getCurrentTime("h24"); $minute = getCurrentTime("n"); $second = getCurrentTime("s");
$month0 = $month; $day0 = $day;

if($month<10) $month0 = "0".$month0;
if($day<10) $day0 = "0".$day0;

$date = $year."-".$month0."-".$day0."-".$hour."-".$minute."-".$second;

// -----

$fields = array("patient_id", "sigh", "anamnesis", "blood_pressure", "pulse", "respiration", "temperature",
               "general_checkup", "diagnosis", "diagnosis_category", "diagnosis_other", "therapy_1", "therapy_1_count", "therapy_2", "therapy_2_count",
               "therapy_3", "therapy_3_count", "additional_information", "date", "day", "month", "year", "doctor_id", "doctor_name");

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"therapy_3", "therapy_3_count", "additional_information", "date", "day", "month", "year", "doctor_id", "doctor_name");
$values = array($patientid, $sigh, $anamnesis, $bloodpressure, $pulse, $respiration, $temperature,
               $generalcheckup, $diagnosis, $diagnosiscategory, $diagnosisOther, $therapy1, $therapy1count, $therapy2, $therapy2count,
               $therapy3, $therapy3count, $additionalinformation, $date, $day, $month, $year, $doctorId, $doctorName);

// -----

$data = new Sidaba(EMR_DS_HOSTNAME, EMR_DS_USERNAME, EMR_DS_PASSWORD);
if(!$data->isConnected()){header("location:../system/error/mysql-connection.php"); exit();}
$data->selectDatabase(EMR_DS_DBNAME); $data->selectTable(EMR_DS_TBL_CHECKUP);
$data->addRecord($fields, $values);

$data->updateRecord("Id", $patientid, "Last_checkup", $date, EMR_DS_TBL_PATIENTS);

if($therapy1!=""){
    $medicineStock = $data->selectedRecordsList("stock", "Id", $therapy1, EMR_DS_TBL_MEDICINES);
    $medicineStock[0] => $therapy1n; if($medicineStock[0]<0) $medicineStock[0] = 0;
    $data->updateRecord("Id", $therapy1, "stock", $medicineStock[0], EMR_DS_TBL_MEDICINES);
}

if($therapy2!=""){
    $medicineStock = $data->selectedRecordsList("stock", "Id", $therapy2, EMR_DS_TBL_MEDICINES);
    $medicineStock[0] => $therapy2n; if($medicineStock[0]<0) $medicineStock[0] = 0;
    $data->updateRecord("Id", $therapy2, "stock", $medicineStock[0], EMR_DS_TBL_MEDICINES);
}

if($therapy3!=""){
    $medicineStock = $data->selectedRecordsList("stock", "Id", $therapy3, EMR_DS_TBL_MEDICINES);
    $medicineStock[0] => $therapy3n; if($medicineStock[0]<0) $medicineStock[0] = 0;
    $data->updateRecord("Id", $therapy3, "stock", $medicineStock[0], EMR_DS_TBL_MEDICINES);
}

if($data->getError()){header("location:../system/error/mysql-error.php?error=".$data->getError(1)); exit();}
$data->disconnect();

// -----

die("<script language='javascript'>location.replace('add-success.php');</script>");

```

Gambar IV.25 Listing program Form Update Dokter

4.4 Testing

Testing dilakukan dengan menggunakan blackbox berikut hasil tes yang di lakukan :

A. Form Login

Testing yang di lakukan pada halaman login mendapatkan hasil sebagai berikut:

Table IV.9

Hasil *Blackbox Testing* pada halaman login

No	Skenario Pengujian	Test Case	Hasil yang di harapkan	Hasil pengujian	Kesimpulan
1	Mengosongakan isian data Password	UserName (Admin) Password (kosong)	Sistem akan menolak dan menampilkan pesan (maaf, Password login ada tidak cocok silahkan masukan kembali password login dengan benar)	Sesuai Harapan	Valid
2	Mengisi isian login dengan user admin dan password yang sesuai	User Name (administrator) Password (Admin)	Sistem akan menerima Akses Login dan kemudian langsung menampilkan menu Admin	Sesuai Harapan	Valid
3	Mengisi isin login dengan user dokter dan password yang sesuai	User name (Dr Haudy) Password (12345)	Sistem akan menerima Akses dan kemudian menampilkan menu Dokter	Sesuai Harapan	Valid

B. Id pasien

Testing yang di lakukan pada halaman id pasien mendapatkan hasil sebagai berikut:

Tabel IV.10

Hasil *Blackbox Testing* pada halaman id pasien

No	Skenario Pengujian	Test Case	Hasil yang di harapkan	Hasil pengujian	Kesimpulan
1	Mengisi ID Pasien dengan ID yang tidak sesuai	ID (1234)	Aplikasi Menolak dan menampilkan pesan “maaf, ID pasien yang Anda masukan tidak cocok . Silahkan masukan kembali ID pasien dengan benar”	Sesuai Harapan	Valid
2	Mengisi IDE pasien denag ID yang sesuai	ID (0001)	Aplikasi menerima aksesn dan menampilkan data pasien yang dapat di edit	Sesuai Harapan	Valid

4.5 Support

4.5.1 Publikasi

Apliakasi *Elektronik Medical Record* ini berjalan dalam intranet jadi tidak dilakukan publikasi.

4.5.2 Spesifikasi Software dan Hardware

Spesifikasi *hardware* yang digunakan untuk membuat program ini adalah sebagai berikut:

Tabel IV.11

Kebutuhan software dan Hardware sistem usulan

Kebutuhan	Keterangan
Sistem Operasi	Windows 7
Processor	Intel(R) Core(TM) 2 Duo Cpu P7350@ 2.00Ghz

RAM	2 GB
Hardisk	250 GB
CD-ROM	52x
Mouse	Standart
Keyboard	Standart
Browser	Mozilla Firefox, Google Chrome, Internet Explorer
Software	Mysql, Apache, XAMPP

4.6 Spesifikasi Dokumen Sistem Usulan

Dokumen yang di keluarkan dalam Aplikasi Elektronik Medical Record adalah sebagai berikut :

Nama dokumen	: Riwayat Medis Pasien
Fungsi	: Informasi data medis pasien dan juga sebagai media melihat daftar obat yang diberikan bagian medis ke bagian obat
Sumber	: Bagian Medis
Tujuan	: Bagian Obat dan Pasien
Media	: Tampilan dan kertas
Frekuensi	: Setiap bagian medis selesai melakukan pemeriksaan