

## **BAB IV**

### **RANCANGAN SISTEM DAN PROGRAM USULAN**

#### **4.1. Analisa Kebutuhan Software**

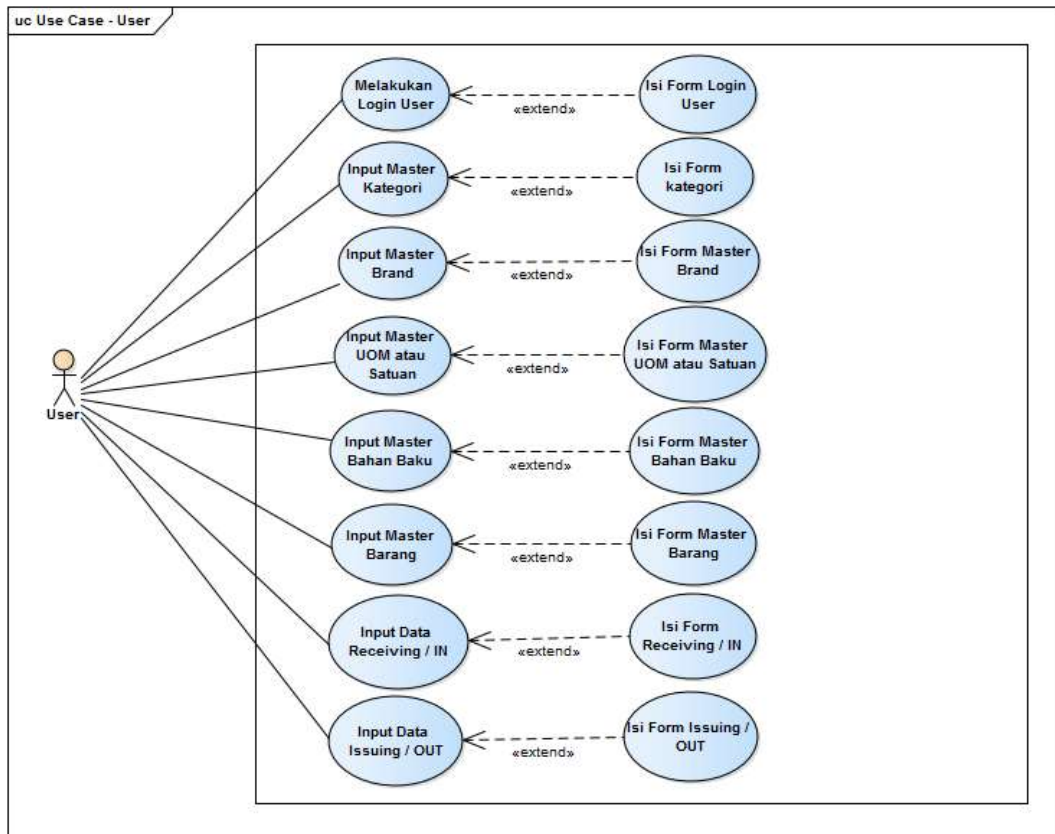
Sistem persediaan bahan baku adalah sistem yang dapat menghasilkan laporan dengan cepat seperti laporan transaksi dan laporan pengembalian bahan baku. Sehingga dapat membantu pemilik dalam mengambil keputusan untuk menunjukkan kemajuan bisnisnya. Berikut ini spesifikasi kebutuhan (*system requirement*) dari sistem persediaan bahan baku :

Halaman User :

- A1. User bisa input master kategori
- A2. User bisa input master brand
- A3. User bisa input master uom atau satuan
- A4. User bisa input master bahan baku
- A5. User bisa input master barang atau makanan
- A6. User bisa input receiving atau barang masuk
- A7. User bisa input issuing atau barang keluar

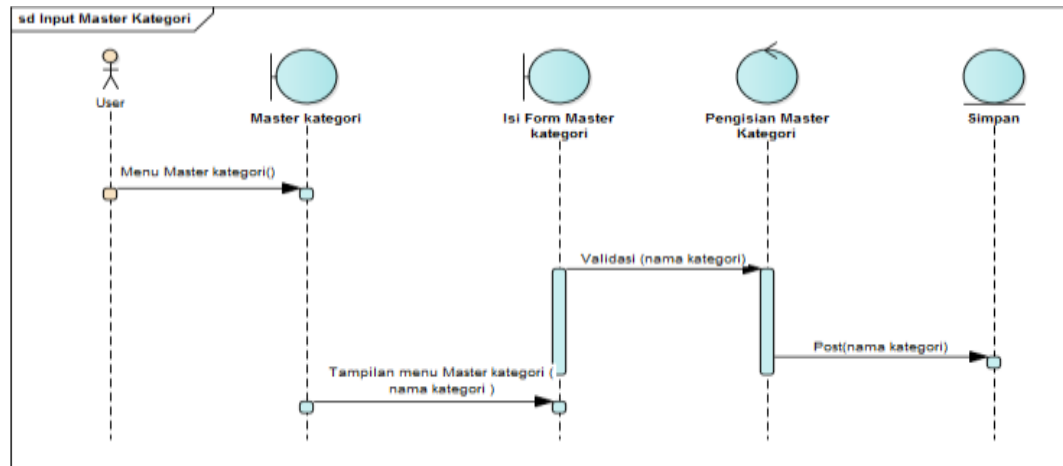
Halaman Administrator :

- B1. Admin bisa input user
- B2. Admin bisa mengelola level user
- B3. Admin bisa mengelola rule user

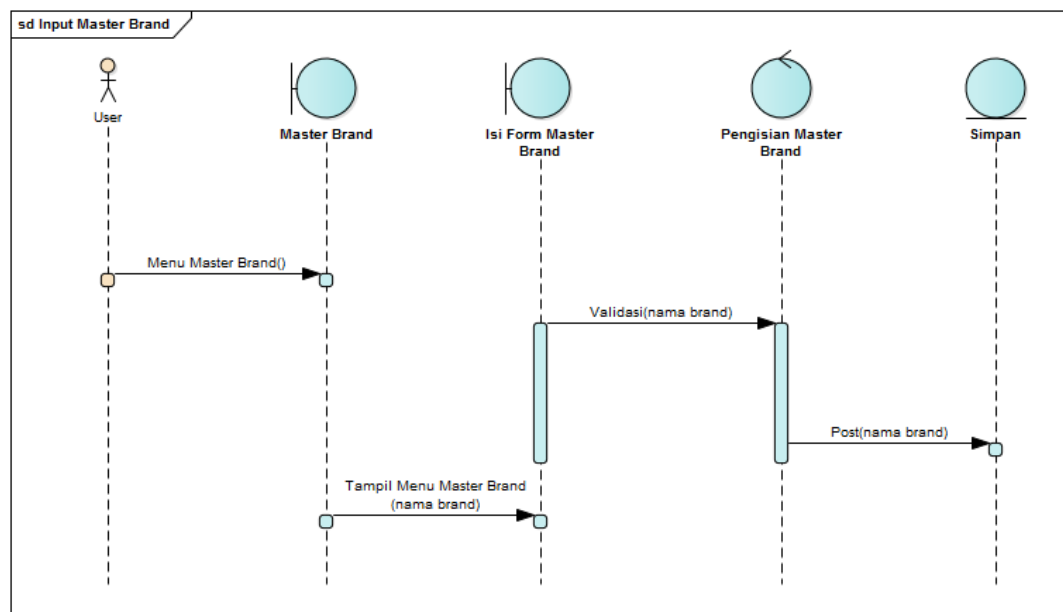


Gambar IV. 1 Use Case Diagram User

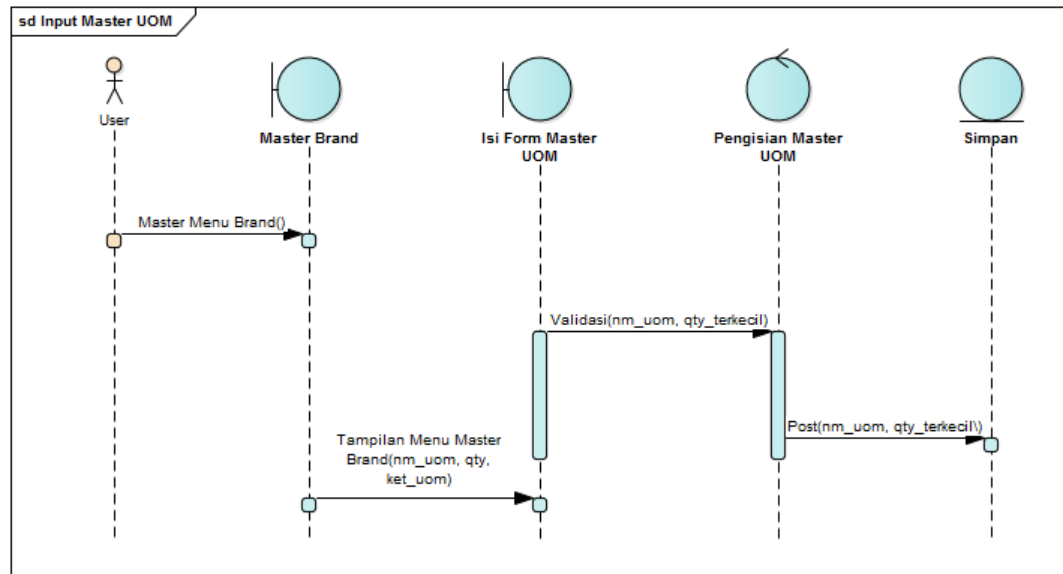
| Use Case Name                 | Halaman User                                                                   |
|-------------------------------|--------------------------------------------------------------------------------|
| <b>Requirement</b>            | A1 – A7                                                                        |
| <b>Goal</b>                   | User dapat menambah, mengedit dan menghapus data master dan transaksi in / out |
| <b>Pre-Conditions</b>         | User telah login                                                               |
| <b>Post-Conditions</b>        | Data tersimpan, terupdate dan terhapus                                         |
| <b>Failed end Conditions</b>  | Gagal menyimavn, mengupdate dan menghapus                                      |
| <b>Primary Actors</b>         | User                                                                           |
| <b>Main Flow / Basic Path</b> | 1. User dapat menambahkan data master dan transaksi                            |
|                               | 2. User dapat menghapus data master dan transaksi                              |
| <b>Invariant</b>              | 1. User dapat melakukan pencarian data master dan transaksi                    |



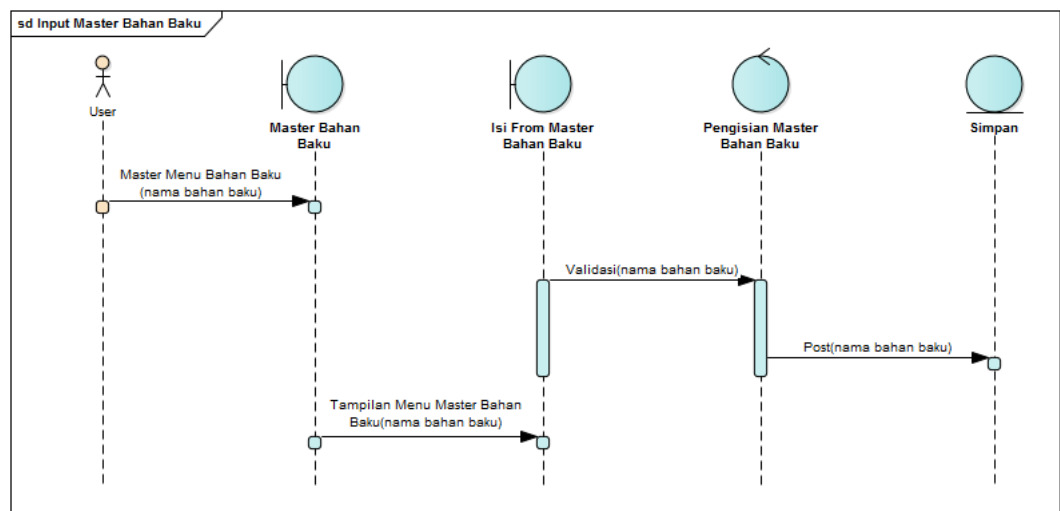
**Gambar IV. 2 Sequence Diagram Kategori**



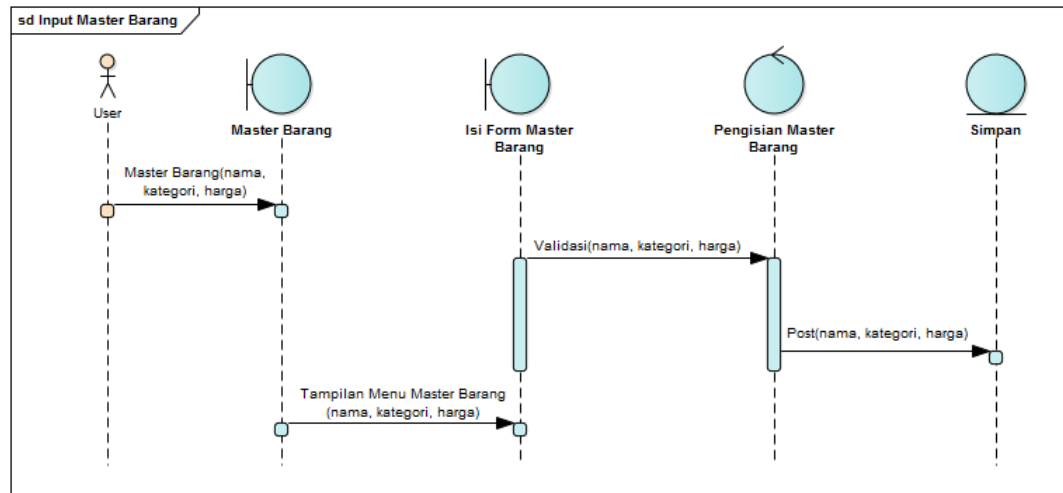
**Gambar IV. 3 Sequence Diagram Brand**



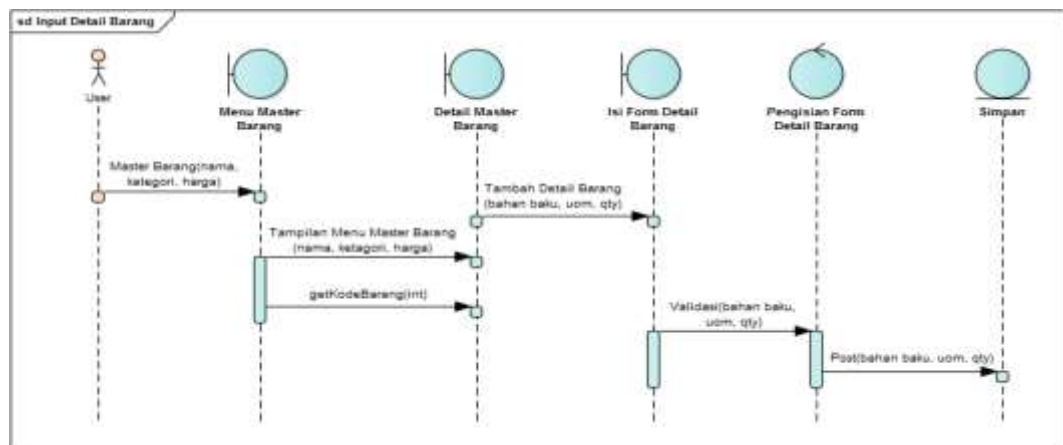
Gambar IV. 4 Sequence Diagram UOM



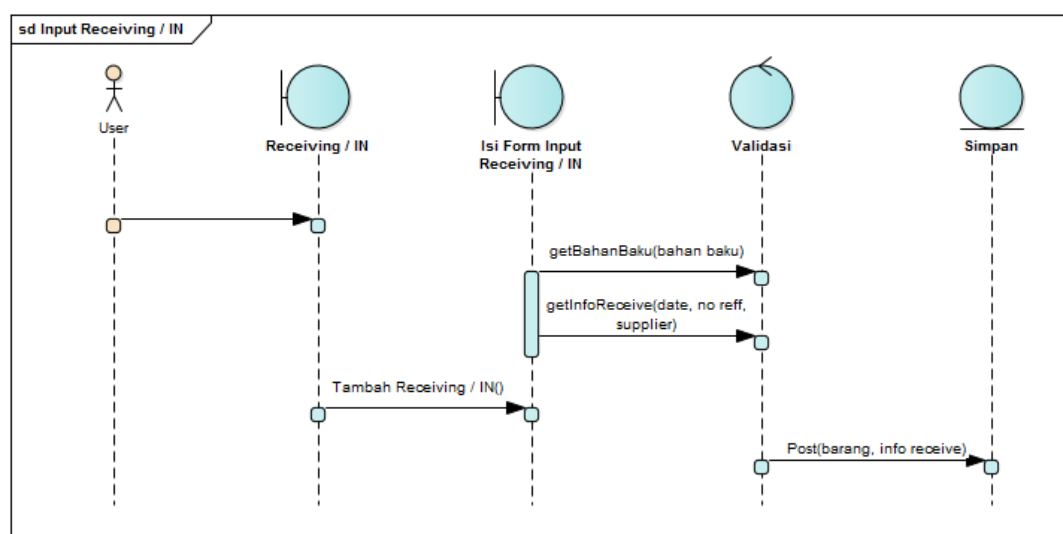
Gambar IV. 5 Sequence Diagram Bahan Baku



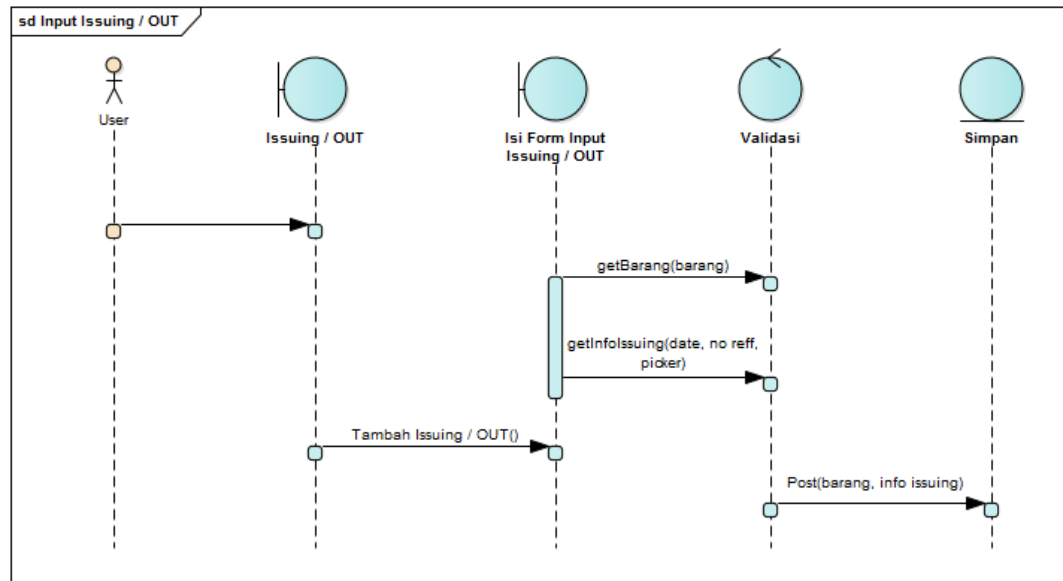
Gambar IV. 6 Sequence Diagram Barang



Gambar IV. 7 Sequence Diagram Detail Barang



Gambar IV. 8 Sequence Diagram Receiving / IN



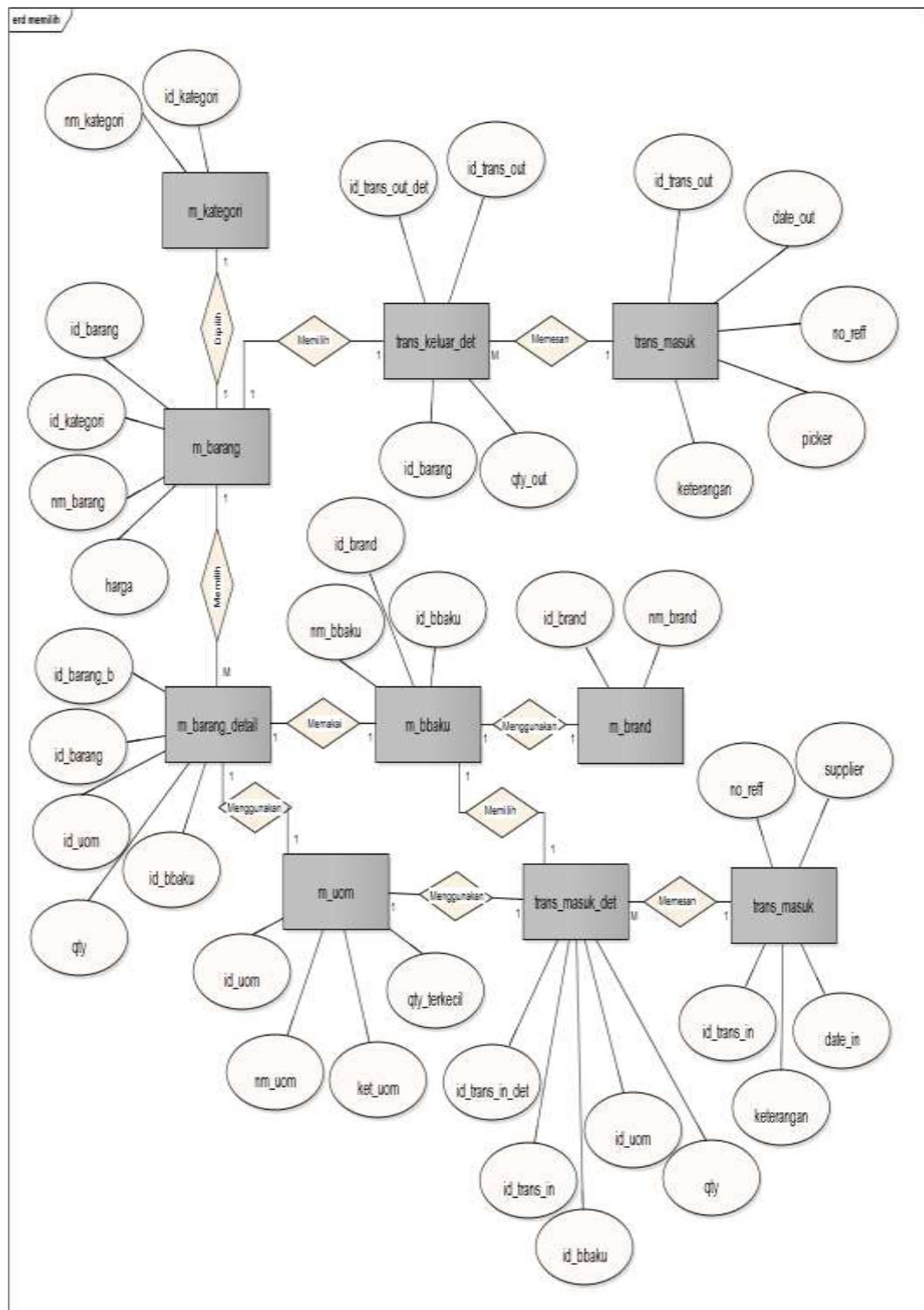
**Gambar IV. 9 Sequence Diagram Issuing / OUT**

## 4.2. Desain

Dalam perancangan website sistem informasi berbasis web pada sistem persediaan bahan baku, terdapat 2 desain yang digunakan, database desain dan desain software.

### 4.2.1 Database

Dalam database desain akan digambarkan dalam suatu *entity relationship diagram* (ERD), serta memaparkan penjelasan dari *entity relationship diagram* (ERD) tersebut.



### Gambar IV.10 Entity Relationship Diagram

Berikut adalah penjelasan dari tabel-tabel yang digunakan dalam Entity

Relationship Diagram (ERD), yaitu :

a. Spesifikasi file tabel m\_kategori

Nama Database : lh\_stokies\_db  
 Nama File : m\_kategori  
 Akronim : m\_kategori.myd  
 Tipe File : File Master  
 Akses File : *Random*  
 Panjang Record : 31 Bytes  
 Kunci File : ide\_kategori

**Tabel IV.1**  
**Spesifikasi file tabel m\_kategori**

| No | Elemen Data | Akronim       | Tipe | Panjang | Keterangan         |
|----|-------------|---------------|------|---------|--------------------|
| 1. | id_kategori | Kode Kategori | Int  | 11      | <i>Primary Key</i> |
| 2. | nm_kategori | Nama Kategori | var  | 20      | -                  |

b. Spesifikasi file tabel m\_barang

Nama Database : lh\_stockies\_db  
 Nama File : m\_barang  
 Akronim : m\_barang.myd  
 Tipe File : File Master  
 Akses File : *Random*  
 Panjang Record : 22 Bytes  
 Kunci File : id\_barang



**Tabel IV.2**  
**Spesifikasi file tabel m\_barang**

| No | Elemen Data | Akronim       | Tipe   | Panjang | Keterangan         |
|----|-------------|---------------|--------|---------|--------------------|
| 1. | id_barang   | Kode Barang   | Int    | 11      | <i>Primary Key</i> |
| 2. | id_kategori | Kode Kategori | Int    | 11      | <i>Foreign Key</i> |
| 3. | Nm_barang   | Nama Barang   | Var    | 30      | -                  |
| 4. | Harga       | Harga         | Double |         | -                  |

c. Spesifikasi file table m\_barang\_detail

Nama Database : lh\_stockies\_db

Nama File : m\_barang\_detail

Akronim : m\_barang\_detail.myd

Tipe File : File Master

Akses File : *Random*

Panjang Record : 33 Bytes

Kunci File : ide\_barang\_b

**Tabel IV.3**  
**Spesifikasi file tabel m\_barang\_detail**

| No | Elemen Data | Akronim            | Tipe   | Panjang | Keterangan         |
|----|-------------|--------------------|--------|---------|--------------------|
| 1. | Id_barang_b | Kode Barang Detail | Int    | 11      | <i>Primary Key</i> |
| 2. | Id_barang   | Kode Barang        | Int    | 11      | <i>Foreign Key</i> |
| 3. | Id_uom      | Kode satuan        | Int    | 11      | <i>Foreign Key</i> |
| 4. | Harga       | Harga              | Double |         | -                  |

## d. Spesifikasi file tabel m\_uom

Nama Database : lh\_stockies\_db

Nama File : m\_uom

Akronim : m\_uom.myd

Tipe File : File Master

Akses File : *Random*

Panjang Record : 71 Bytes

Kunci File : ide\_uom

**Tabel IV.4**  
**Spesifikasi file tabel m\_uom**

| No | Elemen Data  | Akronim     | Tipe   | Panjang | Keterangan         |
|----|--------------|-------------|--------|---------|--------------------|
| 1. | id_uom       | Kode Satuan | Int    | 11      | <i>Primary Key</i> |
| 2. | Nm_uom       | Nama Satuan | Var    | 30      | -                  |
| 3. | Ket_uom      | Keterangan  | Var    | 30      | -                  |
| 4. | qty_terkecil | QTY         | Double |         | -                  |

## e. Spesifikasi file tabel m\_bbaku

Nama Database : lh\_stockies\_db

Nama File : m\_bbaku

Akronim : m\_bbaku.myd

Tipe File : File Master

Akses File : *Random*

Panjang Record : 63 Bytes

Kunci File : id\_bbaku

**Tabel IV.5**  
**Spesifikasi file tabel m\_bbaku**

| <b>No</b> | <b>Elemen Data</b> | <b>Akronim</b>  | <b>Tipe</b> | <b>Panjang</b> | <b>Keterangan</b>  |
|-----------|--------------------|-----------------|-------------|----------------|--------------------|
| 1.        | id_bbaku           | Kode Bahan Baku | Int         | 11             | <i>Primary Key</i> |
| 2.        | id_brand           | Kode Brand      | Int         | 11             | <i>Foreign Key</i> |
| 3.        | Id_uom             | Kode Satuan     | Int         | 11             | <i>Foreign Key</i> |
| 4.        | Nm_bbaku           | Nama Bahan Baku | Var         | 30             | -                  |

f. Spesifikasi file tabel m\_brand

Nama Database : lh\_stockies\_db

Nama File : m\_brand

Akronim : m\_brand.myd

Tipe File : File Master

Akses File : *Random*

Panjang Record : 41 *Bytes*

Kunci File : id\_brand

**Tabel IV.6**  
**Spesifikasi file tabel m\_brand**

| <b>No</b> | <b>Elemen Data</b> | <b>Akronim</b> | <b>Tipe</b> | <b>Panjang</b> | <b>Keterangan</b>  |
|-----------|--------------------|----------------|-------------|----------------|--------------------|
| 1.        | id_brand           | Kode Brand     | Int         | 11             | <i>Primary Key</i> |
| 2.        | Nm_brand           | Nama Brand     | Var         | 30             | -                  |

## g. Spesifikasi file table trans\_masuk

Nama Database : lh\_stockies\_db

Nama File : trans\_masuk

Akronim : trans\_masuk.myd

Tipe File : File Transaksi

Akses File : *Random*

Panjang Record : 66 *Bytes*

Kunci File : id\_trans\_in

**Tabel IV.7**  
**Spesifikasi file tabel trans\_masuk**

| No | Elemen Data | Akronim              | Tipe | Panjang | Keterangan         |
|----|-------------|----------------------|------|---------|--------------------|
| 1. | id_trans_in | Kode Transaksi masuk | Int  | 11      | <i>Primary Key</i> |
| 2. | date_in     | Tanggal masuk        | Date | -       | -                  |
| 3. | No_reff     | No Referensi         | Var  | 20      | -                  |
| 4. | Supplier    | Supplier             | Var  | 30      | -                  |
| 5. | Keterangan  | Keterangan           | Text | -       | -                  |

## h. Spesifikasi file tabel trans\_masuk\_det

Nama Database : lh\_stockies\_db

Nama File : trans\_masuk\_det

Akronim : trans\_masuk\_det.myd

Tipe File : File Detail Transaksi

Akses File : *Random*

Panjang Record : 44 *Bytes*

Kunci File : ide\_trans\_in\_det

**Tabel IV.8**  
**Spesifikasi file tabel trans\_masuk\_det**

| No | Elemen Data     | Akronim                        | Tipe   | Panjang | Keterangan         |
|----|-----------------|--------------------------------|--------|---------|--------------------|
| 1. | id_trans_in_det | Kode Transaksi<br>Masuk Detail | Int    | 11      | <i>Primary Key</i> |
| 2. | Id_trans_in     | Kode Transaksi<br>Masuk        | Int    | 11      | <i>Foreign Key</i> |
| 3. | Id_bbaku        | Kode Bahan Baku                | Int    | 11      | <i>Foreign Key</i> |
| 4. | Id_uom          | Kode UOM                       | Int    | 11      | <i>Foreign Key</i> |
| 5. | qty_in          | QTY                            | Double | -       | -                  |

i. Spesifikasi file tabel trans\_keluar

Nama Database : lh\_stockies\_db

Nama File : trans\_keluar

Akronim : trans\_keluar.myd

Tipe File : File Transaksi

Akses File : *Random*

Panjang Record : 71 Bytes

Kunci File : id\_keluar\_out

**Tabel IV.9**  
**Spesifikasi file tabel trans\_keluar**

| No | Elemen Data   | Akronim                  | Tipe | Panjang | Keterangan         |
|----|---------------|--------------------------|------|---------|--------------------|
| 1. | id_keluar_out | Kode Transaksi<br>Keluar | Int  | 11      | <i>Primary Key</i> |
| 2. | Date_out      | Date                     | -    | -       | -                  |
| 3. | Picker        | Ambil Barang             | Var  | 30      | <i>Foreign Key</i> |
| 4. | Nm_bbaku      | Nama Bahan Baku          | Var  | 30      | -                  |
| 5. | Keterangan    | Keterangan setelah save  | Text | -       | -                  |

## j. Spesifikasi file tabel trans\_keluar\_det

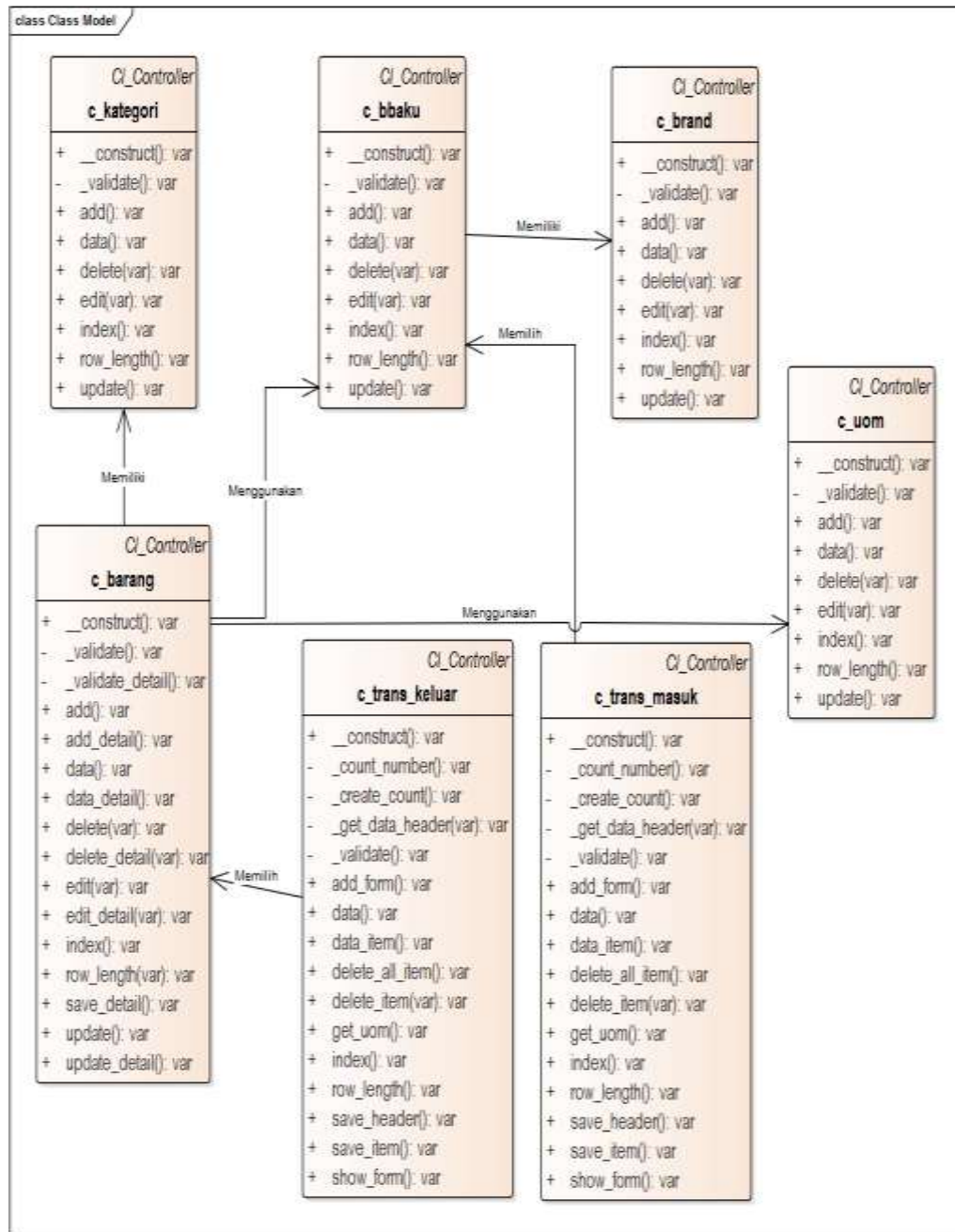
|                |                         |
|----------------|-------------------------|
| Nama Database  | : lh_stockies_db        |
| Nama File      | : trans_keluar_det      |
| Akronim        | : trans_keluar_det.myd  |
| Tipe File      | : File Detail Transaksi |
| Akses File     | : <i>Random</i>         |
| Panjang Record | : 33 <i>Bytes</i>       |
| Kunci File     | : id_trans_out_det      |

**Tabel IV.10**  
**Spesifikasi file tabel trans\_keluar\_det**

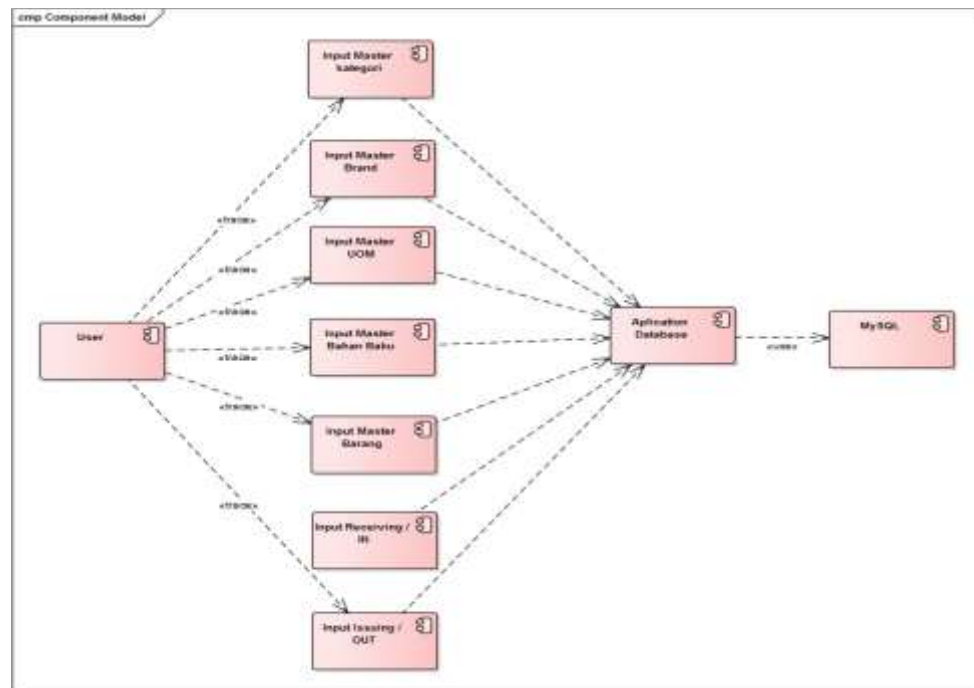
| No | Elemen Data      | Akronim                   | Tipe   | Panjang | Keterangan         |
|----|------------------|---------------------------|--------|---------|--------------------|
| 1. | id_trans_out_det | Kode Barang keluar Detail | Int    | 11      | <i>Primary Key</i> |
| 2. | Id_trans_out     | Kode Barang Keluar        | Int    | 11      | <i>Foreign Key</i> |
| 3. | Qty_out          | QTY                       | Double | -       | -                  |
| 4. | Id_barang        | Kode Barang               | Int    | 11      | <i>Foreign Key</i> |

#### 4.2.2 Software Architecture

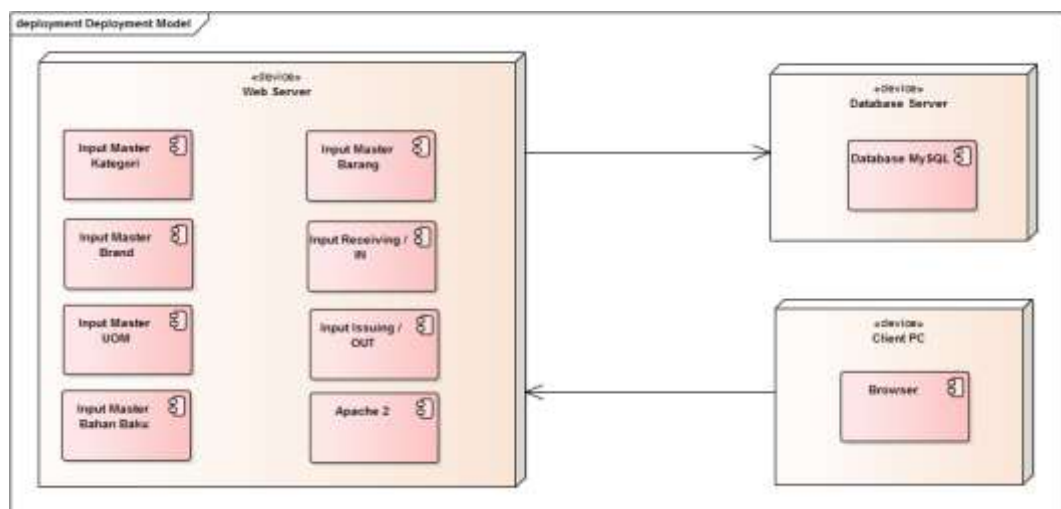
Dalam pembuatan aplikasi ini, digunakan pemrograman berorientasi object (OOP) yang mana akan dijelaskan dalam class diagram, sequence diagram dan component diagram.



Gambar IV. 11 Class Diagram



**Gambar IV. 12 Component Diagram**

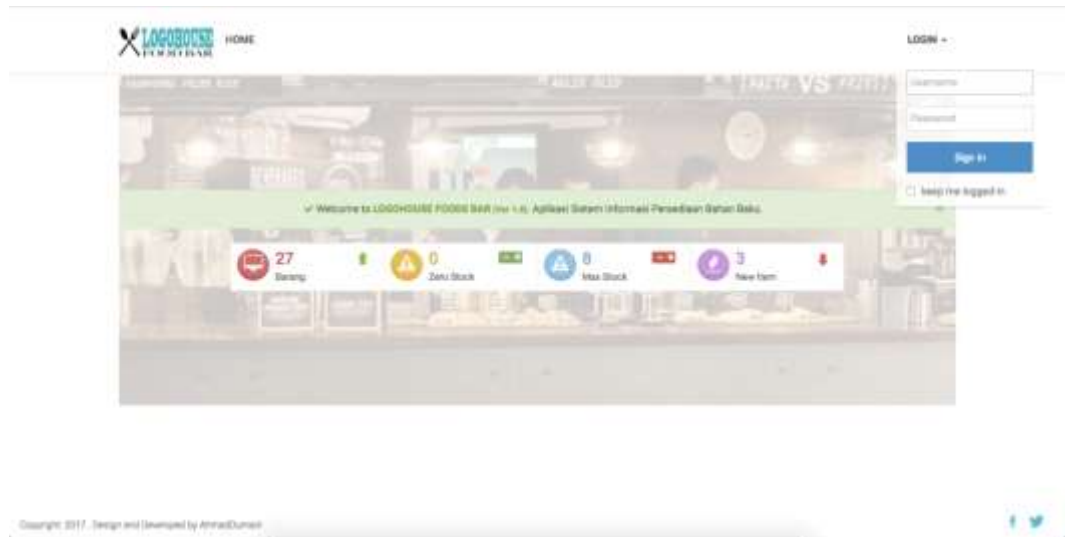


**Gambar IV. 13 Deployment Diagram**



### 4.2.3 User Interface

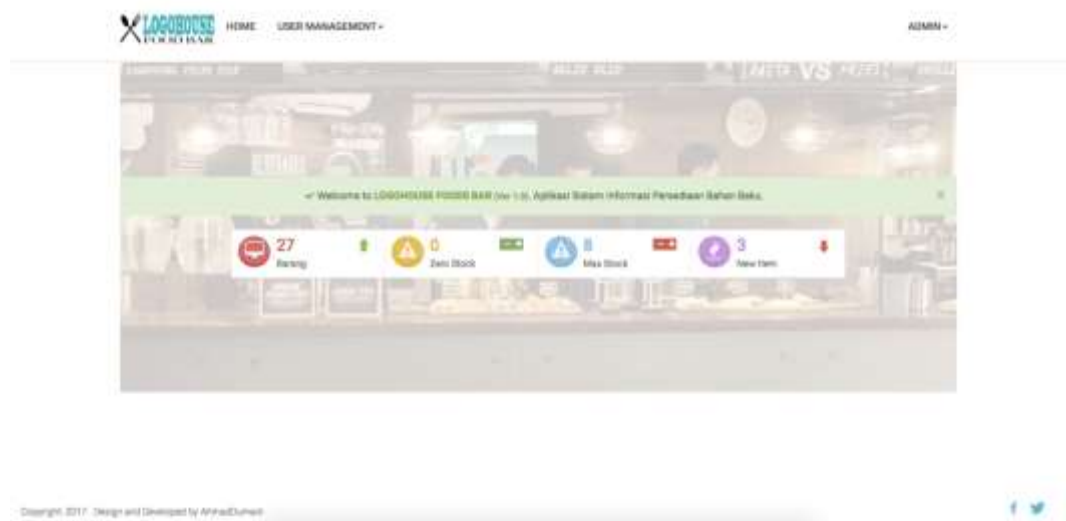
Berikut adalah interface atau tampilan antar muka dari perancangan website sistem informasi berbasis web pada logo house food bar :



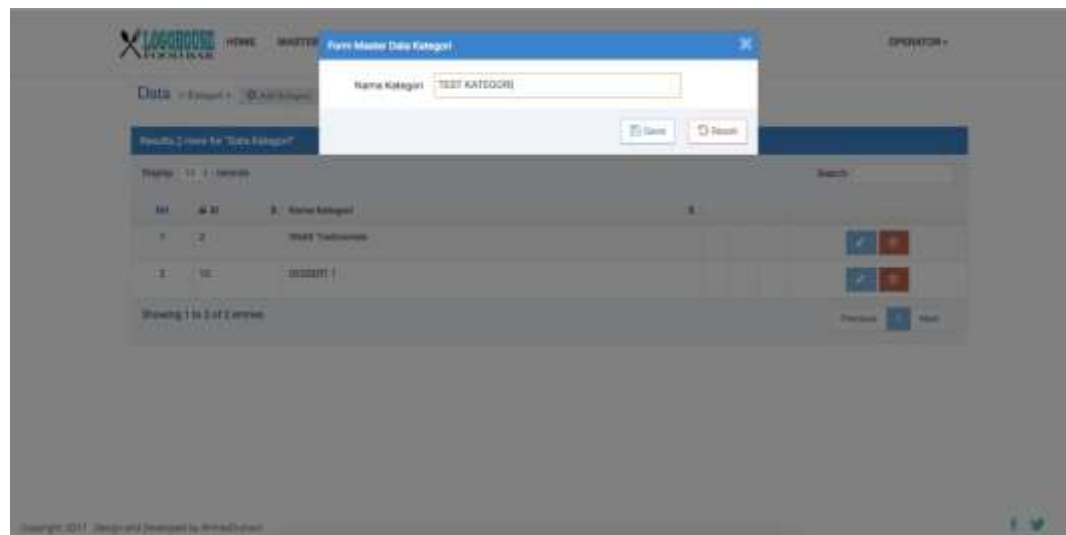
**Gambar IV. 14 Tampilan Utama**



**Gambar IV. 15 Tampilan User**



**Gambar IV. 16 Tampilan Admin**



**Gambar IV. 17 Tampilan Input Master Kategori**

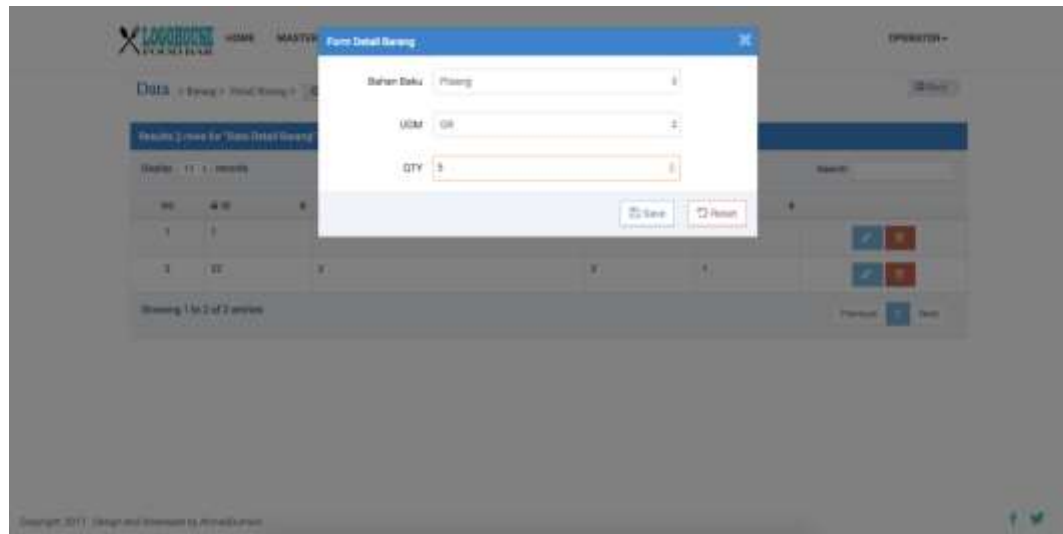


**Gambar IV. 18 Tampilan Input Master Brand**

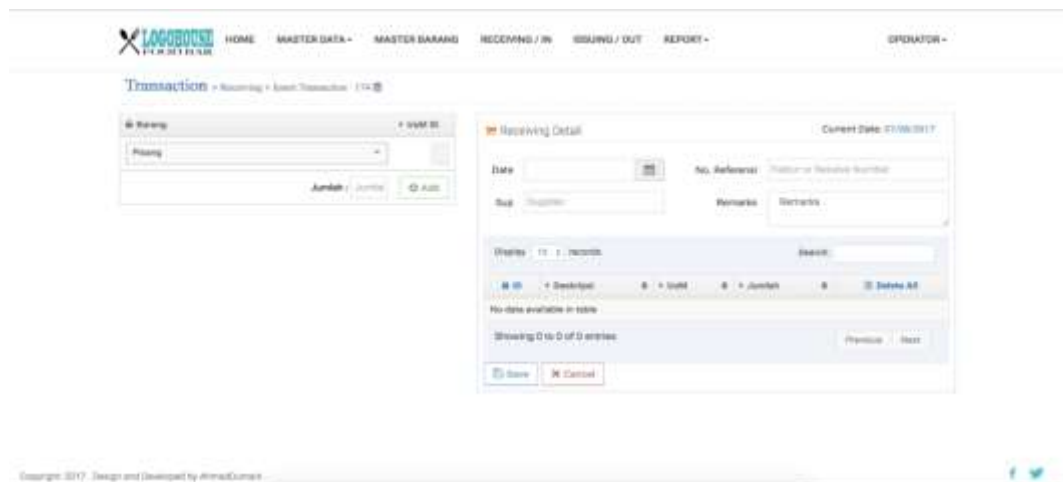
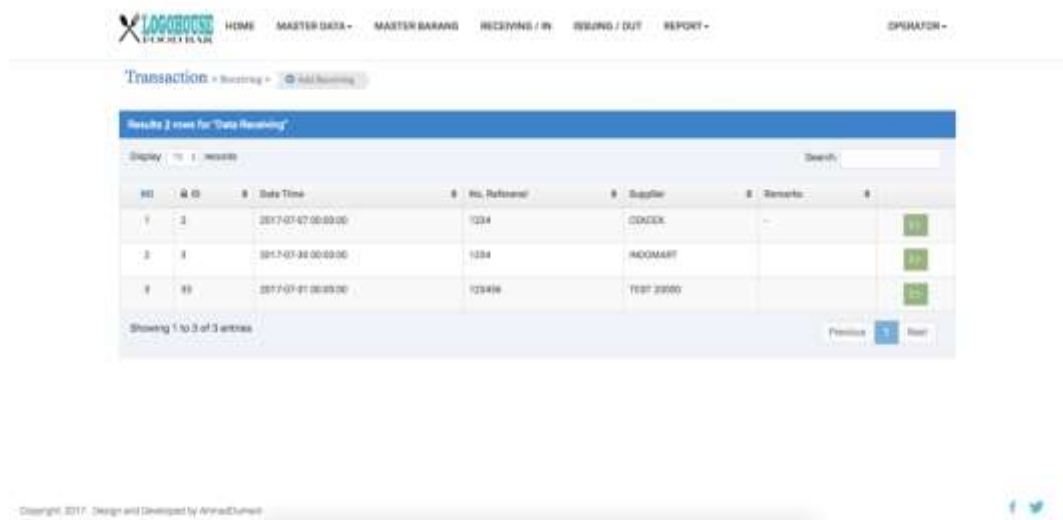
**Gambar IV. 19 Tampilan Input Master UOM**

**Gambar IV. 20 Tampilan Input Master Bahan Baku**

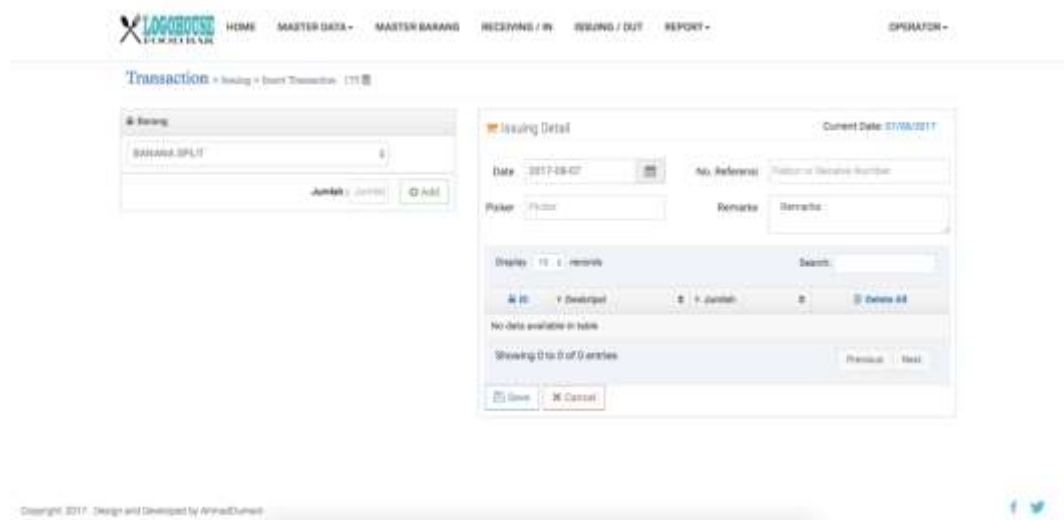
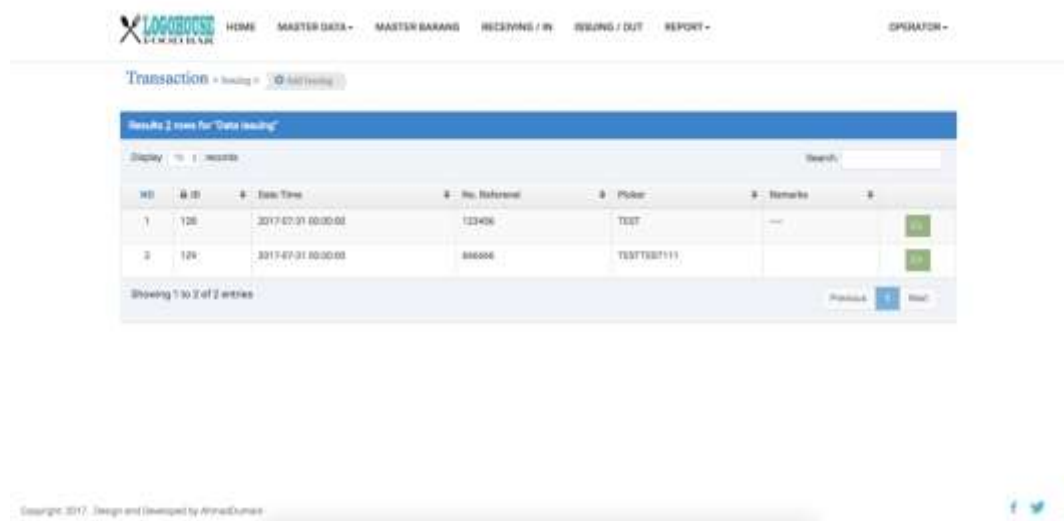
**Gambar IV. 21 Tampilan Input Master Barang**



**Gambar IV. 22 Tampilan Input Master Detail Barang**



**Gambar IV. 23 Tampilan Input Receiving / IN**



**Gambar IV. 24 Tampilan Input Issuing / OUT**

### 4.3. Code Generation

Perancangan sistem informasi persediaan bahan baku ini menggunakan pemrograman *Object Oriented Procedure* (OOP) dengan framework CI (*Codeigniter*), berikut adalah list program dari perancangan sistem informasi persediaan bahan baku :

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <title>LH | <?php echo $judul ?></title>
  <!-- Tell the browser to be responsive to screen width -->
  <meta content="width=device-width, initial-scale=1, maximum-scale=1, user-scalable=no"
name="viewport">
  <!-- Bootstrap 3.3.6 -->
  <link href="<?php echo base_url(); ?>assets/css/bootstrap.min.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/font-awesome.min.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/chosen.min.css" rel="stylesheet">
  <!-- <link href="<?php echo base_url(); ?>assets/css/bootstrap-datepicker3.min.css"
rel="stylesheet"> -->
  <link href="<?php echo base_url(); ?>assets/css/datepicker.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/animate.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/ionicons.min.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/ace.min.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/ace-skins.min.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/ace-rtl.min.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/jquery.fancybox.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/main.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/owl.carousel.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/owl.theme.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/responsive.css" rel="stylesheet">
  <link href="<?php echo base_url(); ?>assets/css/slider.css" rel="stylesheet">
  <!-- jQuery 2.2.3 -->
  <script src="<?php echo base_url(); ?>assets/js/jquery-3.2.0.js"></script>
</head>
<body>
  <!--
  =====
  Header Section Start
  ===== -->
  <header id="top-bar" class="navbar-fixed-top animated-header">
    <div class="container">
      <div class="navbar-header">
        <!-- responsive nav button -->
        <button type="button" class="navbar-toggle" data-toggle="collapse" data-target=".navbar-
collapse">
          <span class="sr-only">Toggle navigation</span>
          <span class="icon-bar"></span>
          <span class="icon-bar"></span>
          <span class="icon-bar"></span>
        </button>
```

```

<!-- logo -->
<div class="navbar-brand">
  <a href="<?php echo base_url();?>" style="margin-top: 0px;">
    <!--  -->
    
  </a>
</div>
<!-- /logo -->
</div>
<!-- main menu -->
<nav class="collapse navbar-collapse" role="navigation">
  <div class="main-menu">
    <!-- navbar left -->
    <ul class="nav navbar-nav navbar-left">
      <li><a href="index.php">Home</a></li>
      <?php
        $id_level_user = $this->session->userdata('id_level_user');
        $id_level_user = ($id_level_user == null || $id_level_user == '') ? 0 : $id_level_user;
        $sql_menu = "SELECT * FROM x_tbl_menu WHERE id in(select id_menu from x_user_rule where
id_level_user=$id_level_user) AND is_main_menu = 0 AND is_active = 0 ORDER BY idx ASC";
        $main_menu = $this->db->query($sql_menu)->result();
        foreach ($main_menu as $main) {
          $submenu = $this->db->get_where('x_tbl_menu', array('is_main_menu' => $main->id, 'is_active' =>
0));
          if ($submenu->num_rows() > 0) {
            echo "
              <li class='dropdown'>
                <a href='javascript:void(0)' class='dropdown-toggle' data-toggle='dropdown'>$.main-
>nama_menu."<span class='caret'></span></a>
                <div class='dropdown-menu'>
                  <ul>";
                  foreach ($submenu->result() as $sub) {
                    echo "<li>" . anchor($sub->link, $sub->nama_menu) . "</li>";
                  }
                  echo "</ul>";
                </li>";
              }else{
                echo "<li>" . anchor($main->link, $main->nama_menu) . "</li>";
              }
            }
          ?>
        </ul>

                                <!-- navbar right -->

    <ul class="nav navbar-nav navbar-right">
      <?php
        $username = $this->session->userdata('username');
        $nama_lengkap = $this->session->userdata('nama_lengkap');
        if (!empty($username)){
          echo "<li class='dropdown'>
            <a href='#' class='dropdown-toggle' data-toggle='dropdown'>$.nama_lengkap."<span
class='caret'></span></a>
            <div class='dropdown-menu'>
              <ul>
                <li><a href='"; echo site_url('c_auth/logout'); echo "'>Logout</a></li>
              </ul>
            </div>
          </li>";
        }else{
          ?>
        }
      </ul>
    </div>
  </div>

```

```

<?php
    echo '
        <li class="dropdown">
            <a href="#" class="dropdown-toggle" data-toggle="dropdown"><b>Login</b>
<span class="caret"></span></a>
            <div class="dropdown-menu dropdown-menu-right">
                <ul id="login-dp">
                    <li>
                        <div
class="row">

                            <div class="col-md-12">;

                                // echo form_open('c_auth/chek_login', 'class="form-login"');

                                echo '
                                    <form action="#" class="form-login" id="form_login" method="POST"
enctype="multipart/form-data" >
                                        <div class="form-group">

                                            <label class="sr-only"
for="username">Username</label>

                                            <input type="text" class="form-control"
id="username" name="username" placeholder="Username" required>
                                            <span class="help-block"></span>

                                            </div>

                                            <div class="form-group">

                                                <label class="sr-only"
for="password">Password</label>

                                                <input type="password" class="form-
control" id="password" name="password" placeholder="Password" required>
                                                <span class="help-block"></span>

                                                </div>

                                            </form>

                                            <div class="form-group">
                                                <button type="submit" id="submit" name="submit" onclick="sign_in()" class="btn btn-
primary btn-block">Sign in</button>
                                            </div>
                                            <div class="checkbox">
                                                <label><input type="checkbox"> keep me logged-in</label>
                                            </div>

                                        </div>

                                    </div>

                                </li>

                            </ul>

                        </div>

                    </li>

                </ul>

            </div>

        </li>

    </div>
</nav>
<!-- /main nav -->
</header>

```



```

<!-- Content Wrapper. Contains page content -->
<div id="section-bg-content">
  <section id="section-content" class="page-content">
    <!-- Main content -->
    <!-- <section id="section-content-detail"> -->
    <div class="container">
      <?php echo $contents; ?>
    </div>
    <!-- </section> -->
    <!-- </div> -->
  </section>
</div>
<!-- /.content-wrapper -->

<!--
=====
Footer Section Start
===== -->
<footer id="footer">
  <!-- <div class="container"> -->
  <div class="col-md-8">
    <p class="copyright">Copyright: <span>2017</span> . Design and Developed by AhmadDumairi</p>
  </div>
  <div class="col-md-4">
    <!-- Social Media -->
    <ul class="social">
      <li>
        <a href="http://www.facebook.com/AhmadDumz" class="Facebook">
          <i class="ion-social-facebook"></i>
        </a>
      </li>
      <li>
        <a href="http://www.twitter.com/AhmadDumz" class="Twitter">
          <i class="ion-social-twitter"></i>
        </a>
      </li>
    </ul>
  </div>
  <!-- </div> -->
</footer> <!-- /#footer -->
<!-- Bootstrap 3.3.6 -->
<script src="<?php echo base_url(); ?>assets/js/bootstrap.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery.fancybox.js"></script>
<script src="<?php echo base_url(); ?>assets/js/main.js"></script>
<script src="<?php echo base_url(); ?>assets/js/owl.carousel.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/slider.js"></script>
<script src="<?php echo base_url(); ?>assets/js/wow.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery.dataTables.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery.dataTables.bootstrap.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/dataTables.buttons.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/dataTables.select.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery-ui.custom.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery.ui.touch-punch.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery.easypiechart.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery.sparkline.index.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery.flot.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery.flot.pie.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/jquery.flot.resize.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/ace-elements.min.js"></script>
<script src="<?php echo base_url(); ?>assets/js/ace.min.js"></script>

```

```

<script type="text/javascript">
$(function(){
  $("#username,#password").keyup(function(event){
    if(event.keyCode == 13){
      sign_in();
    }
  });

});

function sign_in()
{
  var username = $('#username').val(), password = $('#password').val(), submit = true;
  $.ajax({
    url : "<?php echo site_url('c_auth/chek_login')?>",
    type: "POST",
    dataType: "JSON",
    data: {username: username, password: password, submit: submit},
    success: function(data)
    {
      if (data.status){
        window.location.href="<?php echo site_url(); ?>";
        alert('Login Succesfully');
      }else{
        if (data.validate){
          alert('Username or Password Salah');
        }else{
          for (var i = 0; i < data.inputerror.length; i++)
          {
            $('[name="'+data.inputerror[i]+'"]').parent().parent().addClass('has-error'); //select parent twice to
            select div form-group class and add has-error class
            $('[name="'+data.inputerror[i]+'"]').next().text(data.error_string[i]); //select span help-block class
            set text error string
          }
        }
      }
    },
    error: function (jqXHR, textStatus, errorThrown)
    {
      // alert('Error deleting data');
    }
  });
}
</script>
</body>
</html>

```

**Gambar IV. 25 Template dan Login Form**

```

<?php

class M_kategori extends CI_Model {

    public $table = "m_kategori";

    function save()
    {
        $data = array(
            'id_kategori' => $this->input->post('id_kategori', TRUE),
            'nm_kategori' => $this->input->post('nm_kategori', TRUE),
        );
        $this->db->insert($this->table,$data);
    }

    function update()
    {
        $data = array(
            'id_kategori' => $this->input->post('id_kategori', TRUE),
            'nm_kategori' => $this->input->post('nm_kategori', TRUE),
        );
        $id_kategori = $this->input->post('id_kategori');
        $this->db->where('id_kategori',$id_kategori);
        $this->db->update($this->table,$data);
    }

    public function delete($id)
    {
        $this->db->where('id_kategori', $id);
        $this->db->delete($this->table);
    }

    public function get_by_id($id)
    {
        $this->db->from($this->table);
        $this->db->where('id_kategori',$id);
        $query = $this->db->get();

        return $query->row();
    }

}

```

**Gambar IV. 26 Model Input Kategori**

```

<section class="container">
  <div class="page-header">
    <h1>Data <small><i class="ace-icon fa fa-angle-double-right"></i> Kategori <i
class="ace-icon fa fa-angle-double-right"></i>&nbsp;</small>
      <a type="button" class="label label-lg label-light arrowed-in arrowed-right"
onclick="add_kat()"><i class="ace-icon fa fa-plus-circle bigger-110 blue"></i> Add Kategori &nbsp;</a>
      </small>
    </h1>
  </div>
  <div class="row">
    <div class="col-xs-12">
      <div class="row">
        <div class="col-xs-12">
          <div class="table-header"> Results <u
id="row_length"><?php echo $row_length ?></u> rows for "Data Kategori"</div>
          <div>
            <table id="dynamic-table" class="table
table-striped table-bordered table-hover">
              <thead>
                <tr>
                  <th>
                    <div class="center">NO</div>
                  <th><i
class="ace-icon fa fa-lock bigger-110 hidden-480"></i> ID</th>
                  <th>Nama Kategori</th>
                </tr>
              </thead>
              <tbody>
                <tr>
                  <th></th>
                  <th></th>
                  <th></th>
                </tr>
                <tr>
                  <th></th>
                  <th></th>
                  <th></th>
                </tr>
                <tr>
                  <th></th>
                  <th></th>
                  <th></th>
                </tr>
                <tr>
                  <th></th>
                  <th></th>
                  <th></th>
                </tr>
              </tbody>
            </table>
          </div>
        </div>
      </div>
    </div>
  </div>
  <div id="addKat" class="modal fade" tabindex="-1">
    <div class="modal-dialog">
      <div class="modal-content">
        <div class="modal-header no-padding">
          <div class="table-header">
            <button type="button" class="close" data-
dismiss="modal" aria-hidden="true"><span class="white">&times;</span></button>Form Master Data
            Kategori
          </div>
        </div>
        <div class="modal-body no-padding">
          <form action="#" class="form-horizontal" id="form"
method="POST" enctype="multipart/form-data" >
            <div class="space-8"></div>
            <div class="form-group">
              <label class="col-sm-3 control-
label no-padding-right">Nama Kategori</label>
              <input type="text"
id="id_kategori" name="id_kategori" style="display: none;">
              <div class="col-sm-7">
                <input type="text"
name="nm_kategori" id="nm_kategori" placeholder="Nama Kategori" maxlength="64" class="col-xs-10 col-
sm-12"/>
                <span class="help-
block"></span>
              </div>
            </div>
          </form>
        </div>
      </div>
    </div>
  </div>

```

```

</form>
</div>
<div class="modal-footer no-margin-top">
    <button type="button" name="save" value="save"
id="btnSave" onclick="save()" class="btn btn-white btn-info btn-bold"><i class="ace-icon fa fa-floppy-o
bigger-120"></i>Save</button>&nbsp; &nbsp; &nbsp;
    <button type="button" class="btn btn-white btn-
danger btn-bold" onclick="reset()"><i class="ace-icon fa fa-undo bigger-120"></i>Reset</button>
    <!-- <button class="btn btn-sm btn-grey pull-right"
data-dismiss="modal"><i class="ace-icon fa fa-times"></i>Close</button> -->
</div>
</div>
</div>
</div>
</section>

<script type="text/javascript">
    var save_method; //for save method string
    var myTable;
    jQuery(function($) {
        //initiate dataTables plugin
        var myTable =
            $('#dynamic-table')
            // .wrap("<div class='dataTables_borderWrap' />") //if you are
applying horizontal scrolling (sScrollX)
            .DataTable( {
                "sAjaxSource": '<?php echo
site_url('c_kategori/data'); ?>',
                bAutoWidth: false,
                "bProcessing": true,
                "aoColumns": [
                    { "bSortable": false, "mRender": render_null,
                    { "mData": "id_kategori" },
                    { "mData": "nm_kategori", "sWidth": "50%" },
                    { "mData": null, "bSortable": false,
                    { "mData": null, "bSortable": false,
                    { "mData": null, "bSortable": false,
                    { "bSortable": false, "mData": "aksi", "sClass": "text-
center" }
                ],
                "aaSorting": [],

                select: {
                    style: 'single'
                }
            } );

            $.fn.dataTable.Buttons.defaults.dom.container.className = 'dt-buttons btn-overlap
btn-group btn-overlap';

            myTable.on( 'order.dt search.dt', function () {
                myTable.column(0, {search:'applied', order:'applied'}).nodes().each( function (cell, i) {
                    cell.innerHTML = i+1;
                } );
            }).draw();

            function render_null(data, type, full){
                return "";
            }

            $(document).on('click', '#dynamic-table .dropdown-toggle', function(e) {
                e.stopImmediatePropagation();
                e.stopPropagation();
                e.preventDefault();
            });

```

```

//add tooltip for small view action buttons in dropdown menu
$( '[data-rel="tooltip"]' ).tooltip({placement: tooltip_placement});

//tooltip placement on right or left
function tooltip_placement(context, source) {
    var $source = $(source);
    var $parent = $source.closest('table')
    var off1 = $parent.offset();
    var w1 = $parent.width();

    var off2 = $source.offset();
    //var w2 = $source.width();

    if( parseInt(off2.left) < parseInt(off1.left) + parseInt(w1 / 2) ) return 'right';
    return 'left';
}

/*****/
$('.show-details-btn').on('click', function(e) {
    e.preventDefault();
    $(this).closest('tr').next().toggleClass('open');
    $(this).find(ace.vars['.icon']).toggleClass('fa-angle-double-
down').toggleClass('fa-angle-double-up');
});
/*****/

/**
//add horizontal scrollbars to a simple table
$('#simple-table').css({'width': '2000px', 'max-width': 'none'}).wrap('<div style="width:
1000px;" />').parent().ace_scroll(
{
    horizontal: true,
    styleClass: 'scroll-top scroll-dark scroll-visible',//show the scrollbars on
top(default is bottom)

    size: 2000,
    mouseWheelLock: true
}
).css('padding-top', '12px');
*/

$("input").change(function(){
    $(this).parent().parent().removeClass('has-error');
    $(this).next().empty();
});
})
function add_kat()
{
    save_method = 'add';
    $('#form')[0].reset(); // reset form on modals
    $('.form-group').removeClass('has-error'); // clear error class
    $('.help-block').empty(); // clear error string
    $('#addKat').modal('show'); // show bootstrap modal
    $('.modal-title').text('Add Person'); // Set Title to Bootstrap modal title
}

```

```

function save()
{
    $('#btnSave').text('Saving...'); //change button text
    $('#btnSave').attr('disabled',true); //set button disable
    var url;

    if(save_method == 'add') {
        url = "<?php echo site_url('c_kategori/add')?>";
    } else {
        url = "<?php echo site_url('c_kategori/update')?>";
    }

    // ajax adding data to database
    $.ajax({
        url : url,
        type: "POST",
        data: $('#form').serialize(),
        dataType: "JSON",
        success: function(data)
        {

            if(data.status) //if success close modal and reload ajax table
            {
                $('#addKat').modal('hide');
                reload_table(data);
            }
            else
            {
                for (var i = 0; i < data.inputerror.length; i++)
                {
                    $('#[name="'+data.inputerror[i]+'"]').parent().parent().addClass('has-error'); //select
parent twice to select div form-group class and add has-error class
                    $('#[name="'+data.inputerror[i]+'"]').next().text(data.error_string[i]); //select span help-
block class set text error string
                }
            }
            $('#btnSave').text('save'); //change button text
            $('#btnSave').attr('disabled',false); //set button enable

        },
        error: function (jqXHR, textStatus, errorThrown)
        {
            alert('Error adding / update data');
            $('#btnSave').text('save'); //change button text
            $('#btnSave').attr('disabled',false); //set button enable
        }
    });
}

```

```

function reset()
{
    document.getElementById('nm_kategori').value = "";
}

function reload_table(data)
{
    $('#dynamic-table').DataTable().ajax.reload(null, false);
    $('#row_length').text(data.row_length);
}

function delete_kat(id)
{
    if(confirm('Are you sure delete this data?'))
    {
        //ajax delete data to database
        $.ajax({
            url : "<?php echo site_url('c_kategori/delete')?>/" + id,
            type: "POST",
            dataType: "JSON",
            success: function(data)
            {
                //if success reload ajax table
                $('#addKat').modal('hide');
                reload_table(data);
            },
            error: function (jqXHR, textStatus, errorThrown)
            {
                alert('Error deleting data');
            }
        });
    }
}

function edit_kat(id)
{
    save_method = 'update';
    $('#form')[0].reset(); // reset form on modals
    $('.form-group').removeClass('has-error'); // clear error class
    $('.help-block').empty(); // clear error string

    //Ajax Load data from ajax
    $.ajax({
        url : "<?php echo site_url('c_kategori/edit/')?>/" + id,
        type: "GET",
        dataType: "JSON",
        success: function(data)
        {
            $('[name="nm_kategori"]').val(data.nm_kategori);
            $('[name="id_kategori"]').val(data.id_kategori);
            $('#addKat').modal('show'); // show bootstrap modal when complete loaded
            $('.modal-title').text('Edit Kategori'); // Set title to Bootstrap modal title
        },
        error: function (jqXHR, textStatus, errorThrown)
        {
            alert('Error get data from ajax');
        }
    });
}
</script>

```

Gambar IV. 27 View Input Kategori



```

<?php
// defined('BASEPATH') OR exit('No direct script access allowed');

class c_kategori extends CI_Controller {
    // method global variable
    function __construct()
    {
        parent::__construct();
        $this->load->library('ssp');
        $this->load->model("m_kategori");
    }
    // method index
    public function index()
    {
        check_login($this->session->all_userdata());

        $judul      = "Kategori";
        $data["judul"] = $judul;
        $data["row_length"] = $this->row_length();
        $this->template->load('template', 'v_kategori/list', $data);
    }

    public function data()
    {
        // nama tabel
        $table = 'm_kategori';
        // nama PK
        $primaryKey = 'id_kategori';
        // list field
        $columns = array(
            array('db' => 'id_kategori', 'dt' => 'id_kategori'),
            array('db' => 'nm_kategori', 'dt' => 'nm_kategori'),
            array(
                'db' => 'id_kategori',
                'dt' => 'aksi',
                'formatter' => function($d) {
                    return '<a class="btn btn-sm btn-info" href="javascript:void(0)" title="Edit"
onclick="edit_kat(' . $d . ')"><i class="ace-icon fa fa-pencil bigger-120"></i></a> <a class="btn btn-sm
btn-danger" href="javascript:void(0)" title="Hapus" onclick="delete_kat(' . $d . ')"><i class="ace-icon fa
fa-trash-o bigger-120"></i></a>';
                }
            )
        );

        $sql_details = array(
            'user' => $this->db->username,
            'pass' => $this->db->password,
            'db' => $this->db->database,
            'host' => $this->db->hostname
        );

        echo json_encode(
            SSP::simple($_GET, $sql_details, $table, $primaryKey, $columns)
        );
    }

    public function add()
    {
        $this->_validate();

        $data = array(
            'nm_kategori' => $this->input->post('nm_kategori'),
        );

        $insert = $this->m_kategori->save($data);
        $row_length = $this->row_length();
        echo json_encode(array("status" => TRUE, "row_length"=>$row_length));
    }
}

```

```

public function add()
{
    $this->_validate();

    $data = array(
        'nm_kategori' => $this->input->post('nm_kategori'),
    );

    $insert = $this->m_kategori->save($data);
    $row_length = $this->row_length();
    echo json_encode(array("status" => TRUE, "row_length"=>$row_length));
}

    public function edit($id)
    {
        $data = $this->m_kategori->get_by_id($id);
        echo json_encode($data);
    }

public function update()
{
    $this->_validate();
    $data = array(
        'nm_kategori' => $this->input->post('nm_kategori'),
    );
    $this->m_kategori->update(array('id' => $this->input->post('id')), $data);
    echo json_encode(array("status" => TRUE));
}

    public function delete($id)
    {
        $this->m_kategori->delete($id);
        $row_length = $this->row_length();
        echo json_encode(array("status" => TRUE, "row_length"=>$row_length));
    }

public function row_length()
{
    $rows = $this->db->query("SELECT * FROM m_kategori")->num_rows();
    return $rows;
}

    private function _validate()
    {
        $data = array();
        $data['error_string'] = array();
        $data['inputerror'] = array();
        $data['status'] = TRUE;

        if($this->input->post('nm_kategori') == "")
        {
            $data['inputerror'][] = 'nm_kategori';
            $data['error_string'][] = 'Nama Kategori is required';
            $data['status'] = FALSE;
        }

        if($data['status'] === FALSE)
        {
            echo json_encode($data);
            exit();
        }
    }
}

```

**Gambar IV. 28 Controller Input Kategori**

```

<?php

class c_auth extends CI_Controller {

    function __construct() {
        parent::__construct();
        $this->load->model('m_users');
    }

    function cek_login() {
        if (isset($_POST['submit'])) {
            // proses login disini
            $this->_validate();
            $username = $this->input->post('username');
            $password = $this->input->post('password');
            $loginUser = $this->cekLogin($username, $password);
            // $loginGuru = $this->Model_guru->cekLogin($username, $password);
            if (!empty($loginUser)) {
                // sukses login user
                $userData = $this->session->set_userdata($loginUser);
                echo json_encode(array('status'=>true, 'validate'=>true, 'user_data'=>$userData));
            }
            else {
                echo json_encode(array('status'=>false, 'validate'=>true));
                // gagal login
                // redirect('c_auth');
            }
        } else {
            echo json_encode(array('status'=>false, 'validate'=>true));
            // redirect('c_auth');
        }
    }

    function logout() {
        $this->session->sess_destroy();
        redirect();
    }

    function cekLogin($username,$password){
        $this->db->where('username',$username);
        $this->db->where('password', md5($password));
        $user = $this->db->get('m_users')->row_array();
        return $user;
    }
}

```

```

private function _validate()
{
    $data = array();
    $data['error_string'] = array();
    $data['inputerror'] = array();
    $data['status'] = TRUE;
    $data['validate'] = TRUE;

    if($this->input->post('username') == "")
    {
        $data['inputerror'][] = 'username';
        $data['error_string'][] = 'Username is required';
        $data['status'] = FALSE;
        $data['validate'] = FALSE;
    }
    if($this->input->post('password') == "")
    {
        $data['inputerror'][] = 'password';
        $data['error_string'][] = 'Password is required';
        $data['status'] = FALSE;
        $data['validate'] = FALSE;
    }
    if($data['status'] === FALSE)
    {
        echo json_encode($data);
        exit();
    }
}
}

```

**Gambar IV. 29 Controller Authentication**

#### 4.4. Testing

Uji coba dengan 2 macam modul login form dan input master kategori yang menggunakan uji coba blackbox, yaitu :

##### A. Form Login

**Tabel IV.11  
Hasil Pengujian Blackbox Testing Form Login**

| No | Skenario Pengujian                                                            | Test Case                                  | Hasil yang diharapkan                                                       | Hasil Pengujian | Kesimpulan |
|----|-------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------|-----------------|------------|
| 1  | Mengosongkan semua isian data login pada form login, lalu langsung enter atau | Username : (Kosong)<br>Password : (Kosong) | Sisetem akan menolak login dan menampilkan pesan “Username is required” dan | Sesuai Harapan  | Valid      |

|   |                                                                                                   |                                           |                                                                                                               |                |       |
|---|---------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------|-------|
|   | klik tombol “sign in”                                                                             |                                           | “Password is required”                                                                                        |                |       |
| 2 | Hanya mengisi data username dan mengosongkan password, lalu tekan enter atau klik tombol sign in  | Username : (admin)<br>Passrowd : (Kosong) | Sistem akan menolak user login atau password dan menampilkan pesan “Password is required”                     | Sesuai Harapan | Valid |
| 3 | Hanya mengisi data password dan mengosongkan username lalu tekan enter atau klik tombol “sign in” | Username : (Kosong)<br>Password : (admin) | Sistem akan menolak dan menampilkan pesan “Username is required”                                              | Sesuai Harapan | Valid |
| 4 | Menginput data login dan password lalu tekan enter atau klik tombol “Sign In”                     | Username : (admin)<br>Password : (admin)  | Sistem akan menerima akses login user dan password kemudian langsung menampilkan menu sesuai dengan otorisasi | Sesuai Harapan | Valid |

## B. Input Master Kategori

**Tabel IV.12**  
**Hasil Pengujian Blackbox Testing Input Master Kategori**

| No | Skenario Pengujian                                     | Test Case                    | Hasil yang diharapkan                                                             | Hasil Pengujian | Kesimpulan |
|----|--------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------|-----------------|------------|
| 1  | Mengosongkan nama kategori kemudian langsung klik save | Nama Kategori :<br>(Kosong)  | Sistem akan menolak proses save dan menampilkan pesan “nama kategori is required” | Sesuai Harapan  | Valid      |
| 2  | Menginput nama kategori dan                            | Nama Kategori :<br>(Dessert) | Sistem akan menerima proses save dan                                              | Sesuai Harapan  | Valid      |

|  |                    |  |                            |  |  |
|--|--------------------|--|----------------------------|--|--|
|  | kemudian klik save |  | menyimpannya pada database |  |  |
|--|--------------------|--|----------------------------|--|--|

## 4.5. Support

### 4.5.1. Spesifikasi Hardware dan Software

Dalam mengimplementasikan perancangan dan pembuatan sistem persediaan bahan baku, penulis membutuhkan saranan pendukung yaitu perangkat lunak dan perangkat keras

**Tabel IV.13**  
**Spesifikasi Hardware dan Software**

| Kebutuhan      | Keterangan                           |
|----------------|--------------------------------------|
| Sistem Operasi | Windows 7                            |
| Prosesor       | Pentium Core 2 Duo 2.4GHz            |
| RAM            | 512 MB                               |
| Hardisk        | 160 GB                               |
| Monitor        | Generic PnP Monitor                  |
| Keyboard       | 108 Key                              |
| Printer        | Laser Jet                            |
| Mouse          | Standard                             |
| Browser        | Mozilla Firefox, Google Chrome       |
| Software       | Sublime Text, Adobe Photoshop, XAMPP |

#### **4.6 Spesifikasi Dokumen Sistem Usulan**

|              |                                    |
|--------------|------------------------------------|
| Nama Dokumen | : Laporan Stock                    |
| Fungsi       | : Sebagai laporan stock bahan baku |
| Sumber       | : Operator                         |
| Tujuan       | : Pembelian                        |
| Media        | : Tampilan                         |
| Frekuensi    | : Setiap cek stock bahan baku      |
| Format       | : Lampiran B-1                     |