CHAPTER V

IMPLEMENTATION AND TESTING

5.1 Implementation

Firstly, I setup Ubuntu 10.10 Operating System. Then, I setup apache as the web-server and mysql as the sql-server. Mysql is used by gammu to save its database. Finally, I setup gammu as the daemon application to read and write to modem device.

5.1.1 Install Web-server

1) Install Apache

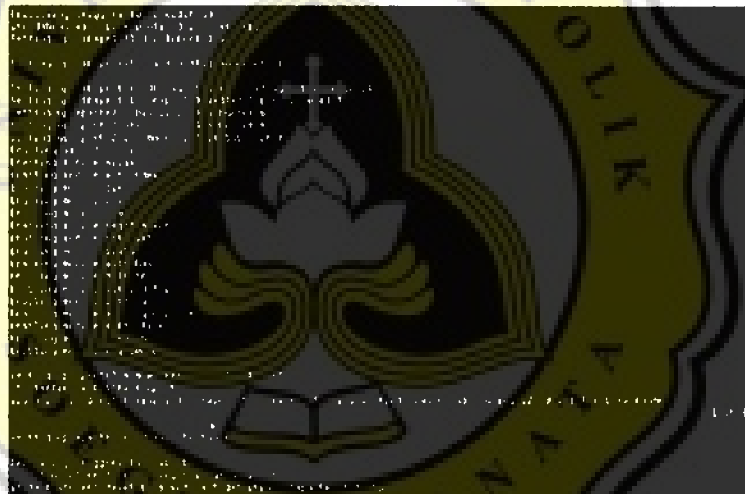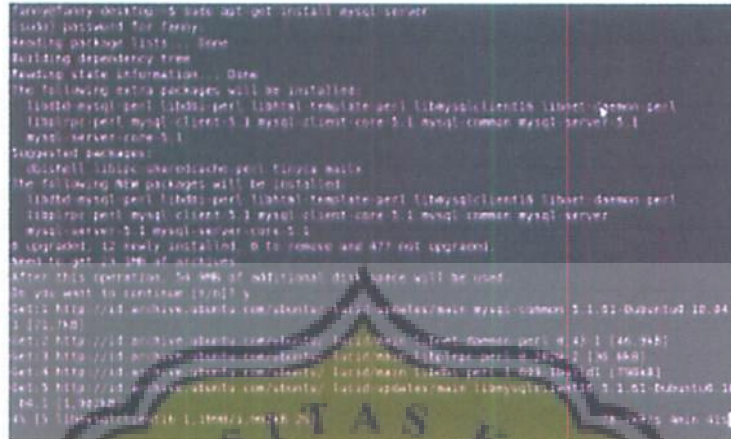```
#sudo apt-get install apache2
```



*Figure 5.1.1.1 Installation Apache*

2) Install MySql

#sudo apt-get install mysql-server



*Figure 5.1.1.2 Insall MySQL Server*

After installing MySQL, password configurations window will show up. Fill the password and then type the configuration password once again.
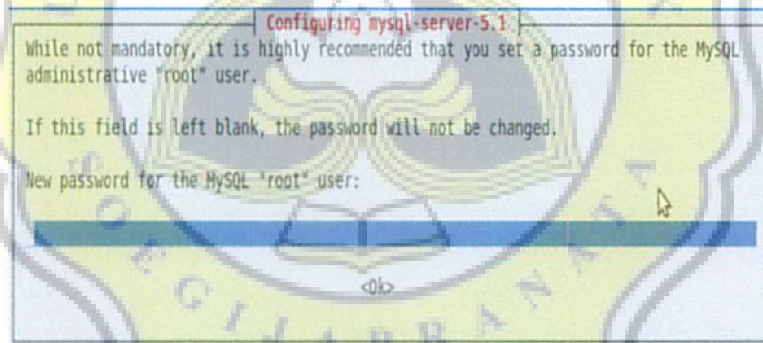


*Figure 5.1.1.3 configuring-mysql-server*

3) Install Php

#sudo apt-get php5 libapache2-mod-php5

After this installation **restart Apache** *[sudo /etc /init.d/apache2 restart]* don't write brackets. Now make a **phpinfo.php** file and save that in /var/www to do this use [*sudo gedit /var/www/phpinfo.php*] write a code in this file :

```php
<?php
phpinfo();
?>
```
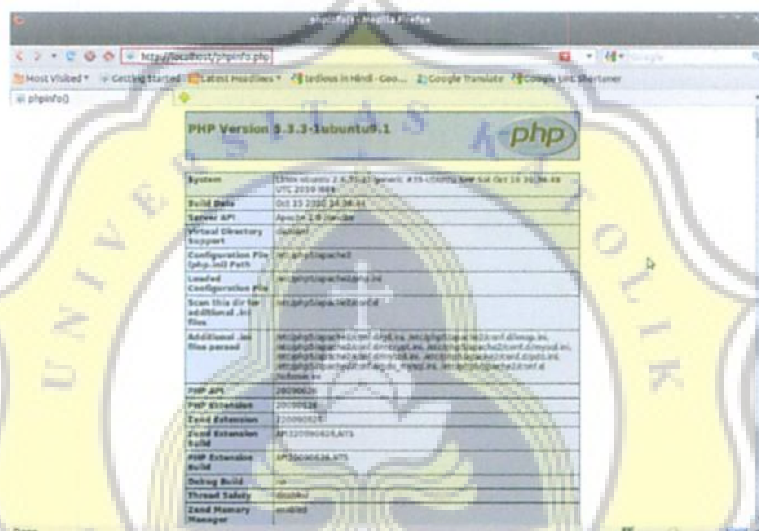

Figure 5.1.1.4 Installation Php

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4) Install PhpMyAdmin

   # sudo apt-get install phpmyadmin
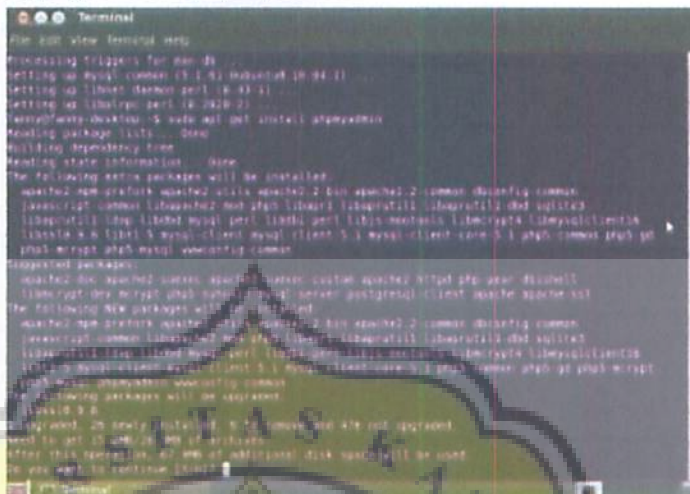
Figure 5.1.1.5 Install PhpMyAdmin

After installation is finished, it will displays a windows to specify which web server that should be use. Choose by press the space key, then configuration by 'OK'.

Figure 5.1.1.6 Configuring Web-server PhpMyAdmin

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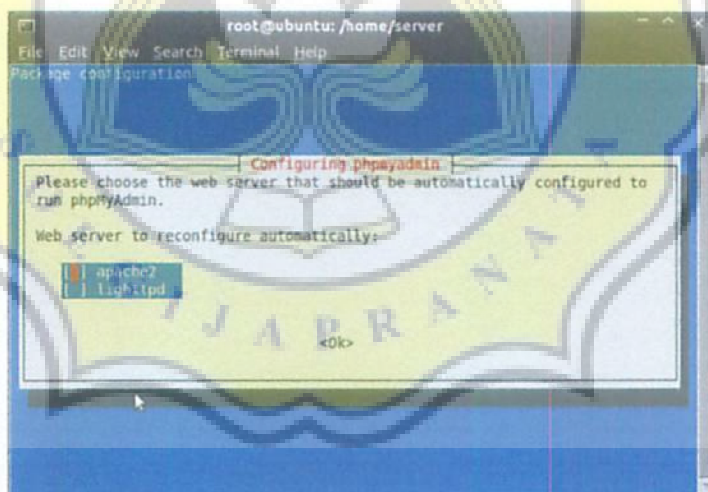
After chose web-server for PhpMyAdmin, configuration for PhpMyAdmin will show up, continue by 'no'.
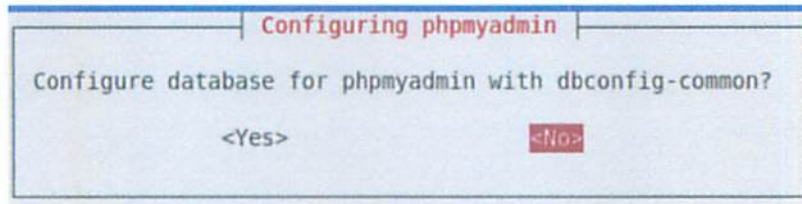
Figure 5.1.1.7 Configuring PhpMyAdmin

5.1.2 Install Gammu Packages

After Operating System and Web-server was setup, then I setup of gammu include libgammu, gammu-smsd, gammurc to support this application. Where gammu-smsd is configuration of database and the modem device to gammu. Gammurc is a configuration of modem device to gammu.

1) Setup Gammu

#sudo apt-get install gammu

Figure 5.1.2.1 Install Gammu

2) Setting Permission folder

sudo chmod -R 777 /var/www

sudo chmod -R 777/usr/share/doc/gammu/examples/config/gammurc.gz

sudo chmod -R 777/usr/share/doc/gammu/examples/sql/mysql.sql.gz

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3) Extract File

sudo gunzip /usr/share/doc/gammu/examples/sql/mysql.sql.gz

```
mysql.sql
root@ubuntu:/usr/share/doc/gammu/examples/sql# []
```

Figure 5.1.2.2 Extract mysql.sql.gz

4) Check Port usb for configuration

dmesg

Figure 5.1.2.3 Checking Port

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5) Edit gammu-config,gammurc, and gammu-smsdrc

```
Current Gammu configuration

P Port                      (/dev/ttyUSB3)
C Connection                (at)
M Model                     ()
D Synchronize time          (yes)
F Log file                  (/etc/gammulog)
O Log format                (textall)
L Use locking               ()
G Gammu localisation        ()
H Help
S Save


       <Ok>                 <Cancel>
```

gammurc ✖

```
[gammu]
port = /dev/ttyUSB3
connection = at
logfile = /etc/gammulog
logformat = textall
use_locking = yes
```

gammu-smsdrc ✖

```
# Configuration file for Gammu SMS Daemon

# Gammu library configuration, see gammurc(5)
[gammu]
# Please configure this!
port = /dev/ttyUSB3
connection = at
startinfo = yes
# Debugging
logformat = textall

# SMSD configuration, see gammu-smsdrc(5)
[smsd]
service = mysql
DeliveryReport = sms
logfile = /etc/smsdlog

# Increase for debugging information
debuglevel = 255
user = root
password = mist1441
pc = localhost
database = gammu

# Paths where messages are stored
inboxpath = /var/spool/gammu/inbox/
outboxpath = /var/spool/gammu/outbox/
sentsmspath = /var/spool/gammu/sent/
errorsmspath = /var/spool/gammu/error/
```

Figure 5.1.1.6 Configuring Web-server PhpMyAdmin

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6) Check Gammu --identify

#gammu --identify

Figure 5.1.2.5 Gammu Identify

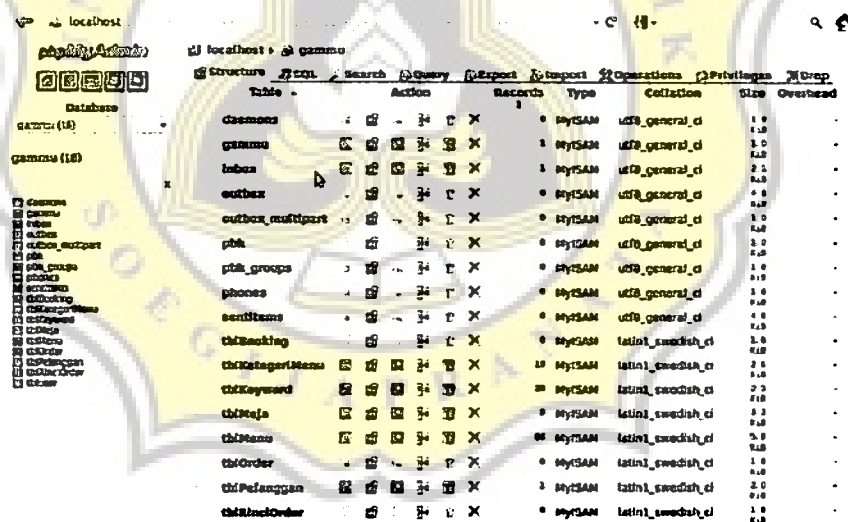## 7) Daemon mysql.sql

Daemon mysql.sql from extract in /usr/share/doc/gammu/examples/ to database using name gammu.

#mysql -u root -p smsd > mysql.sql

Figure 5.1.2.6 Daemon mysql.sql to Database

Figure 5.1.2.7 Database gammu

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8) Run Gammu

 # sudo gammu-smsd -c /etc/gammu-smsdrc -d

Figure 5.1.2.8 Run Gammu

9) Check

 # tail -f /etc/smsdlog

Figure 5.1.2.9 Check

5.1.3 Web Implementation

At this application, all the data is store at the database gammu in PhpMyadmin. So every time gammu is receiving messages, it will directly store in table inbox. When Gammu is sending a reply to sender, it will store a messages to outbox table and then wait until gammu succesfully send the messages. The messages which has been successfully sent next will be store in sentitems table.

1. Connect to Database

```php
<?php
    $connect = mysql_connect("localhost","root","mist1441");
    if(!$connect)
    {
        echo "Failed to connect mySQL<br/>";
    }
?>
```

Figure 5.1.3.1 Database connection Php Script

2. Add Database

Figure 5.1.3.2 Add Database Using Php Script

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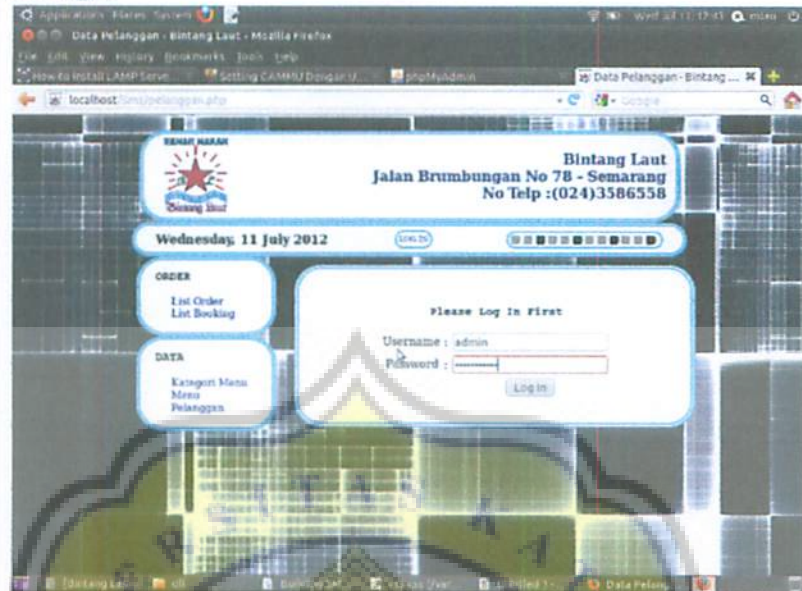
3. Login

Figure 5.1.3.3 Login Php

After login
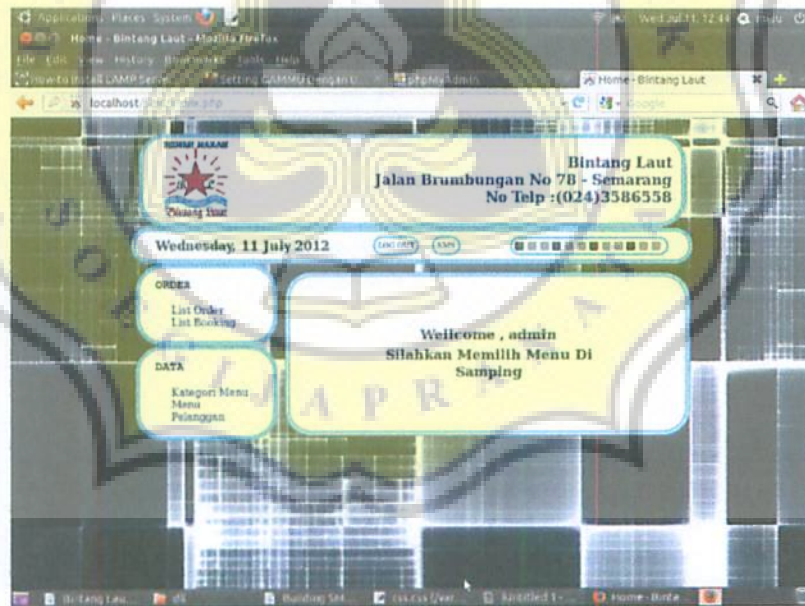
Figure 5.1.3.4 Welcome Php

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4. Form Pelanggan
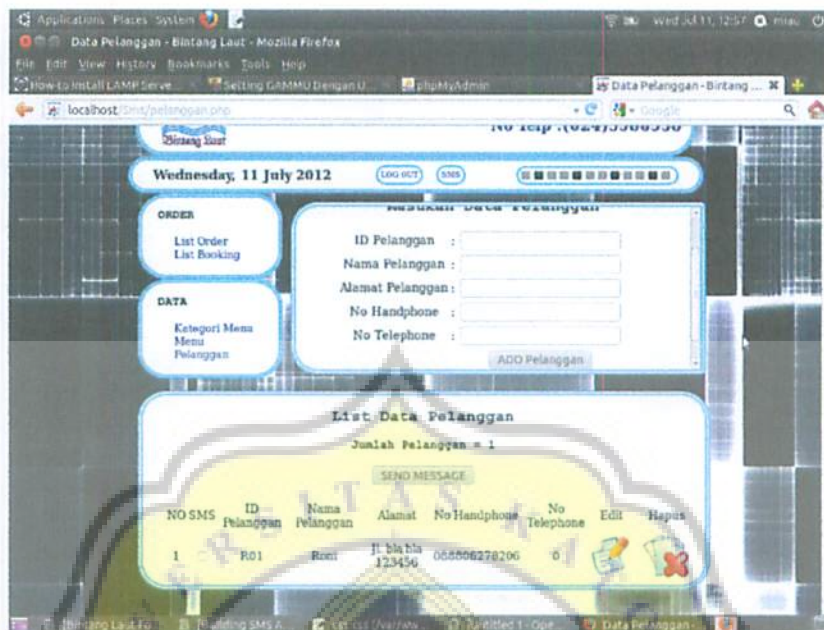
Figure 5.1.3.5 Pelanggan Php

Fill in customer data into database. Id pelanggan is primary key tblPelanggan.
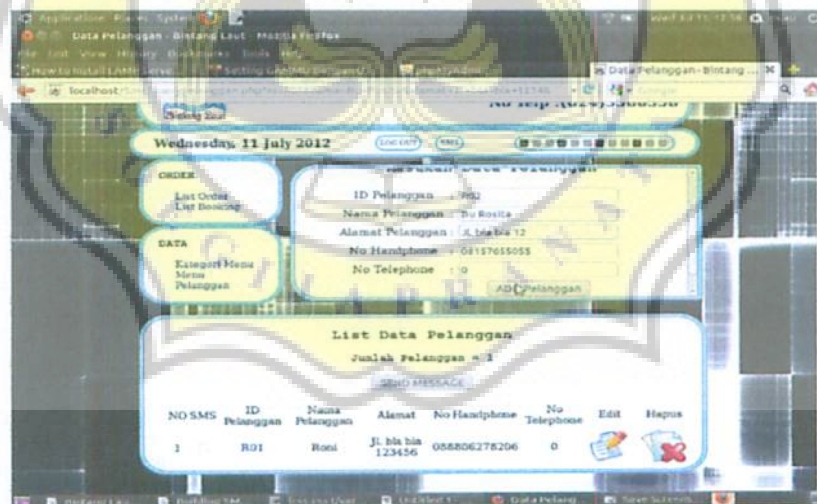
Figure 5.1.3.6 Fill Data Pelanggan

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If the data successful input insert the database
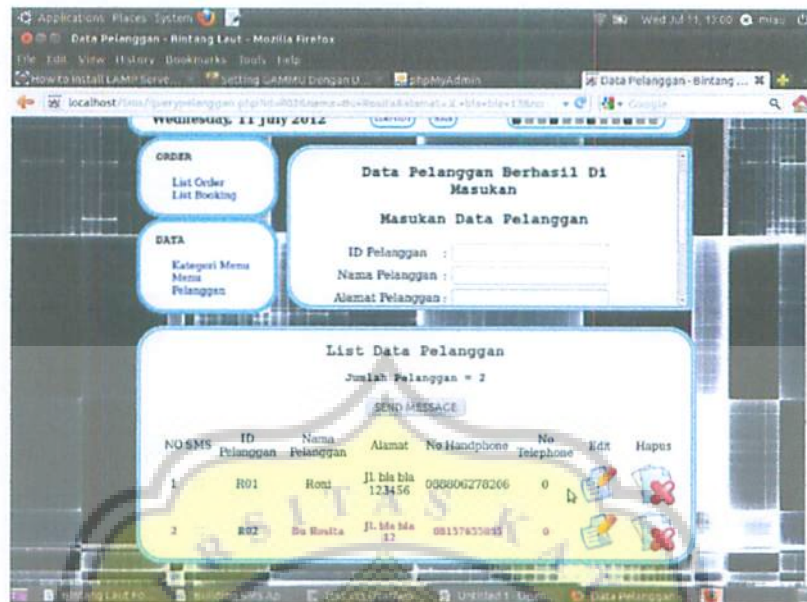
Figure 5.1.3.7 Data Pelanggan Successfully insert Into Database

If the data failed insert into the database
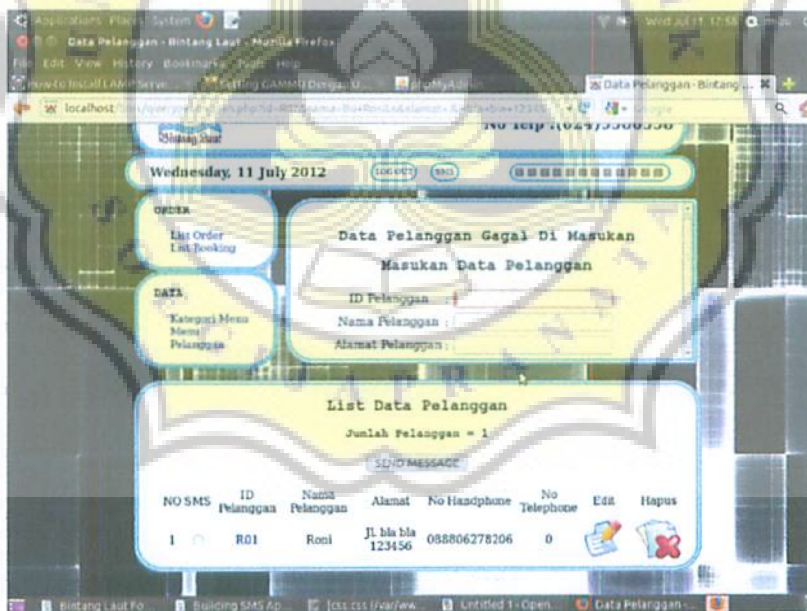
Figure 5.1.3.8 Data Pelanggan Failed insert Into Database

5. Form Kategori Menu
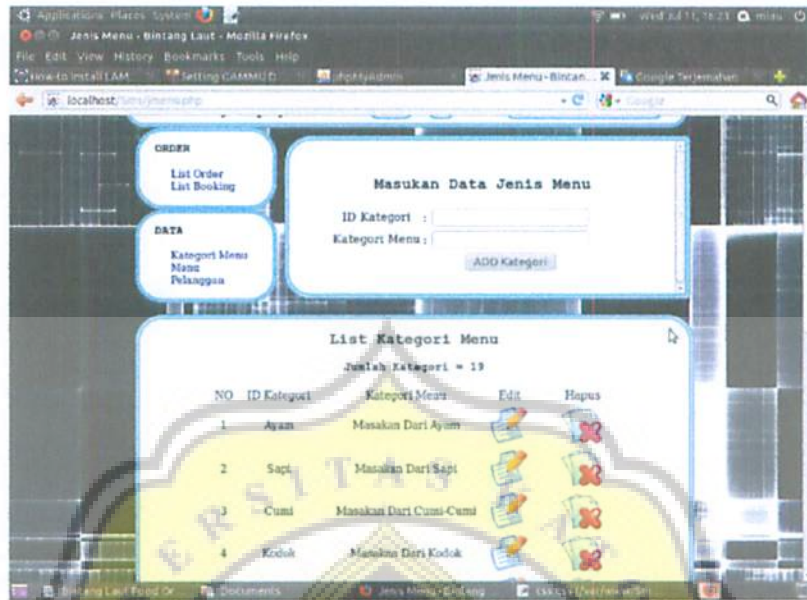
Figure 5.1.3.9 Kategori Menu Php

This form is showing category for menu, adding new category, editing category, and deleting category. This table is connected to the table tblMenu using id_kategory on tblKategory.

6. Form Menu

Figure 5.1.3.10 Menu Php

This form is showing all menu, adding new menu, editing menu, and deleting menu. This table is connected to the table tblRinciOrder using id_menu on tblMenu.

7. Form Auto Reply
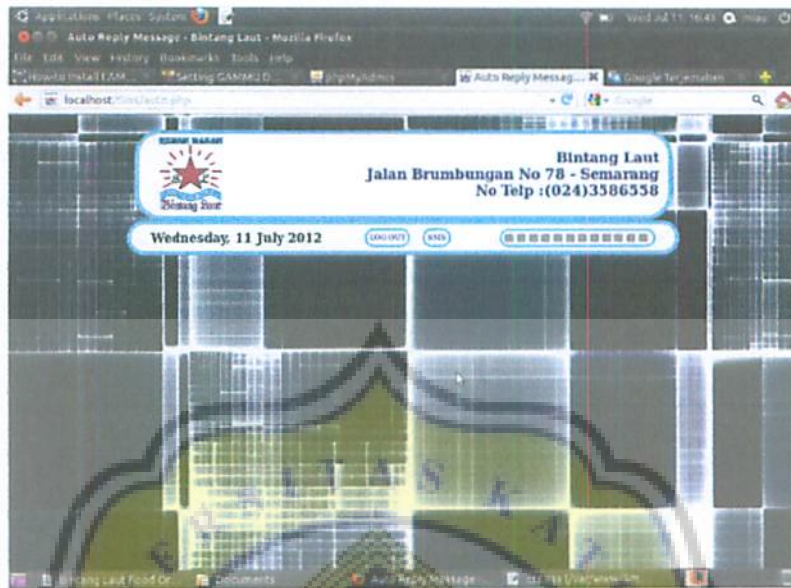
Figure 5.1.3.11 Auto Reply Php

This form for automatically reply sms from inbox where user must registered their phone number. This form reply sms by keyword in text sms from user. To show all keyword user just have to send sms who contain text "HELP" and then this form will auto reply user with sms containing keyword for show menu, ordering, change order, and many more. This the some code on this form :

```php
<?php
        session_start();
?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html>
<head><meta http-equiv="refresh" content="3; url=<?php $_SERVER['PHP_SELF']; ?>">
<title> Auto Reply Message - Bintang Laut </title>
<link rel="shortcut icon" href="dll/logo.png">
<link rel="stylesheet" type="text/css" href="dll/css.css">
<table class="kepala" cellpadding="0" cellspacing="0">
<tbody><tr style="height: 80px;">
<td class="left">
<div style="width: 100px;">
<img src="dll/logo.png" title="Bintang Laut" border="0" style="height:85%; width:85%" alt="Berkat Motor">
</div></td>
<td class="right">
Bintang Laut<br/>
Jalan Brumbungan No 78 - Semarang<br/>
No Telp :(024)3586558</td>
</tr></tbody>
</table>
</head>
<body>
<center>
        <?php
        include "connect.php";
        $pakaiDBquery = mysql_select_db("gammu");
        if(isset($_SESSION['username']))
        {
        ?>
                <div class="menu">
                <table style="width: 700px"><tbody><tr>
                <td>
                <div class="tgl"><?php echo "<b>".date("l, d F Y")."</b>"; ?></div>
                </td>
                <td>
                <div class="menu1" style="float: left">
                <?php
                echo "<li><a href='logout.php'>LOG OUT</a></li></td>
                        <td><div class='menu1' style='float: left'>
                        <li><a href='sms.php'>SMS</a></li>";
                ?>
                </div>
                </td>
                <td>
                <div class="menu1" style="float: right; margin-right: 20px">
                        <img src="dll/load.gif" style="margin-right: 4px"><img src="dll/load.gif" style="margin-right:
4px"><img src="dll/load.gif" style="margin-right: 4px"><img src="dll/load.gif" style="margin-right: 4px">
                </div>
                </td>
                </tr></tbody></table>
                </div>
                <?php
                $date = date("Y-m-d");
                $time = date("Y-m-d H:i:s");
                $jam = date("H:i:s");
                $datearr = explode("-", $date);
                $jamarr = explode(":", $jam);
                $dayminutes = floor($datearr[2]*1440);
                $hourminutes = floor($jamarr[0]*60);
                $tminutes = $hourminutes+$jamarr[1];
                $tminutes1 = $dayminutes+$hourminutes+$jamarr[1];
                $waitingList = array();
                $arr = mysql_query("SELECT no_order FROM tblOrder WHERE status = 'belum'");
                while ($arrOrder = mysql_fetch_array($arr))
                {
                        $row = $arrOrder['no_order'];
                        array_push($waitingList, $row);
                }
                for($z=0;$z<count($waitingList);$z++)
                {
                        $t=mysql_query("SELECT time_limit, jenis_order, id_pelanggan FROM tblOrder where no_order =
'$waitingList[$z]'");
                        $timeAkhir = mysql_fetch_row($t);
                        $splt = explode(" ", $timeAkhir[0]);
                        $darr = explode("-", $splt[0]);
                        $tarr = explode(":", $splt[1]);
                        $dtam = floor($darr[2]*1440);
                        $htom = floor($tarr[0]*60);
                        $tm = $dtam+$htom+$tarr[1];
                        if($tm<$tminutes1)
                        {
                                if($timeAkhir[1] == "Antar")
                                {
                                        $updateStatusQuery = "UPDATE tblOrder SET status = 'sudah' WHERE no_order =
'$waitingList[$z]'";
                                        $updateStatus = mysql_query($updateStatusQuery);
                                        $nohppelanggan = mysql_query("SELECT no_hp FROM tblPelanggan WHERE id_pelanggan =
'$timeAkhir[2]'");
                                        $nohpp = mysql_fetch_row($nohppelanggan);
```

Figure 5.1.3.12 Little Code from Auto Reply Php

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