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3. REVISION HISTORY

<i>EDITION</i>	<i>ISSUED DATE</i>	<i>REMARK</i>
1 st	13 th of August, 2007	Initial release
2 nd	26 th of September, 2007	Revised
3 rd	20 th of November, 2009	Added security setting for folder

MOBITEK System Sdn .Bhd. (207015-D)

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4. INTRODUCTION

SMS Engine Basic Edition is a Windows application that sends and receives SMS. System integrator and software developer (SI/SD) do not need to write any code to build a SMS Gateway. The **SMS Engine** uses MS Access database – “SMSEngine3.mdb” to store incoming SMS, and to check if there is any pending SMS to be send out. SI/SD only needs to insert record into database to send out SMS, and retrieve record from database to read SMS. The **SMS Engine** has taken care all SMS transactions.

PHP programmers can develop a SMS Gateway or SMS application by **using PHP with SMS Engine**. PHP programmers need only to interact with the database via ODBC to send and read SMS. A sample code written in PHP is provided with the **SMS Engine**. PHP programmers can freely use, or modify the code.

5. REQUIREMENTS

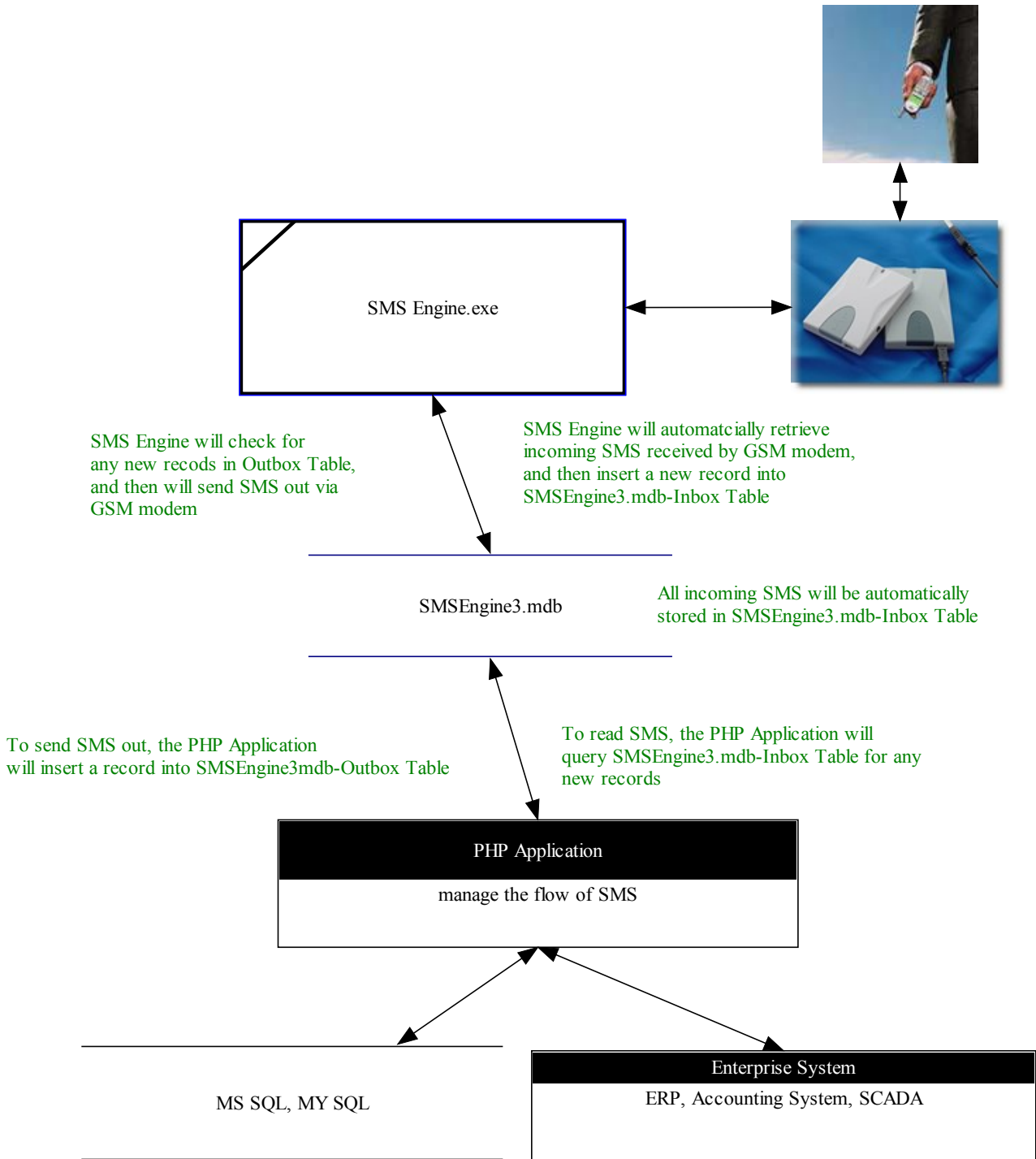
1. SI/SD must posses knowledge of PHP, database programming and SQL statement
2. SMS ENGINE Basic Edition version 5
3. PHP version 5
4. Web Server – IIS or Apache
5. PC running on Windows (2000 Professional, 2000 Server, XP Pro, or 2003 Server)

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6. SYSTEM ARCHITECTURE DIAGRAM



7. INSTALLATION GUIDE – PHP WITH IIS

You can either install PHP with IIS or PHP with Apache. This section will guide you on the installation of PHP with IIS.

a) Install IIS (web server)

To install IIS, add optional components, or remove optional components

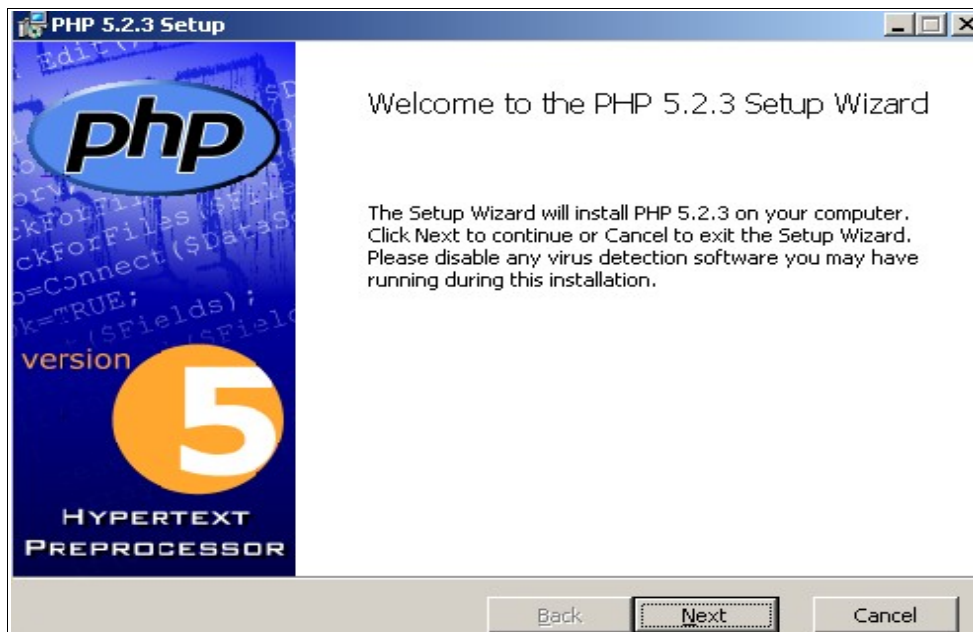
1. Click **Start**, click **Control Panel**, and click **Add or Remove Program**.
2. Click **Add/Remove Windows Components**. The Windows Components Wizard appears.
3. Follow the on-screen instructions to install the IIS.

Refer link below for details explanation:

<http://www.microsoft.com/resources/documentation/windows/xp/all/proddocs/en-us/iiisin2.mspx?mfr=true>

b) Install PHP version 5

1. Run the set-up “php-5.2.3-win32-installer.msi”.
2. Click on **Next button**.

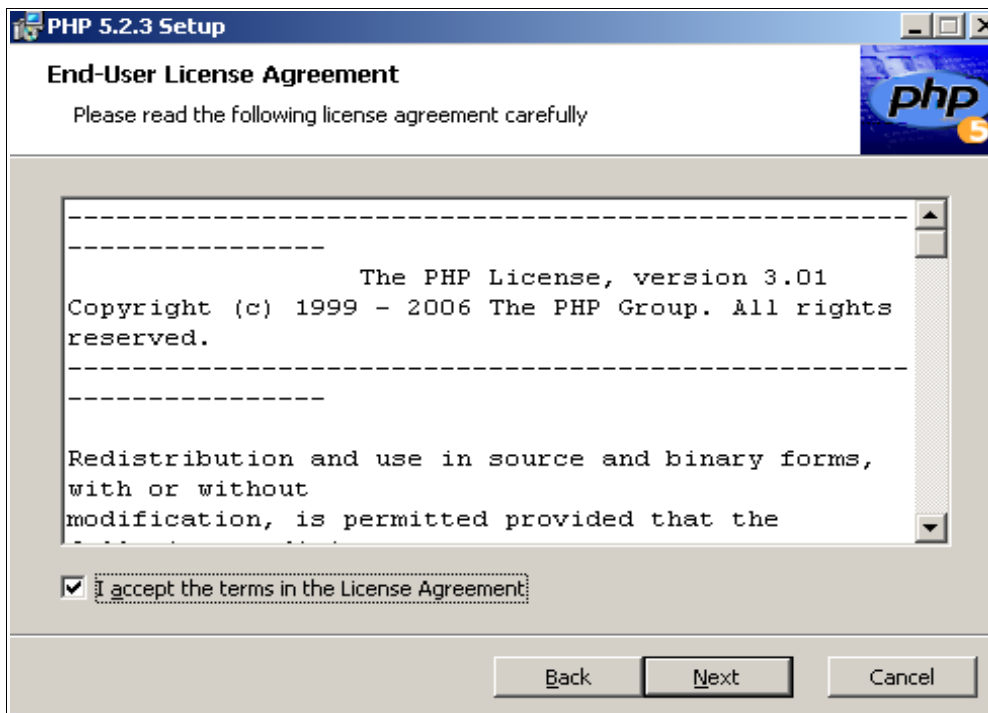


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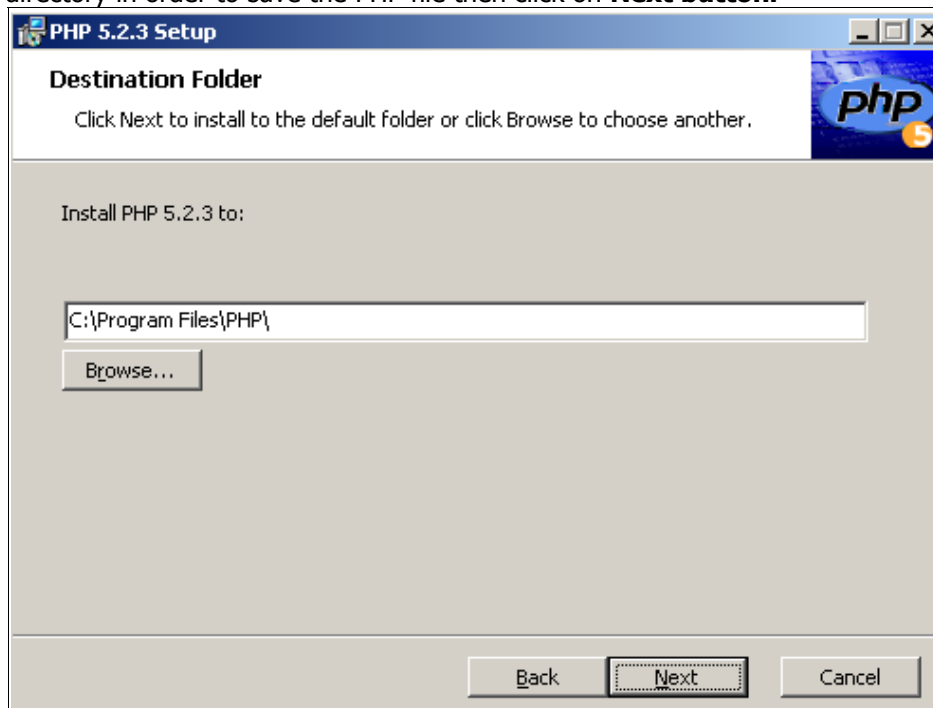
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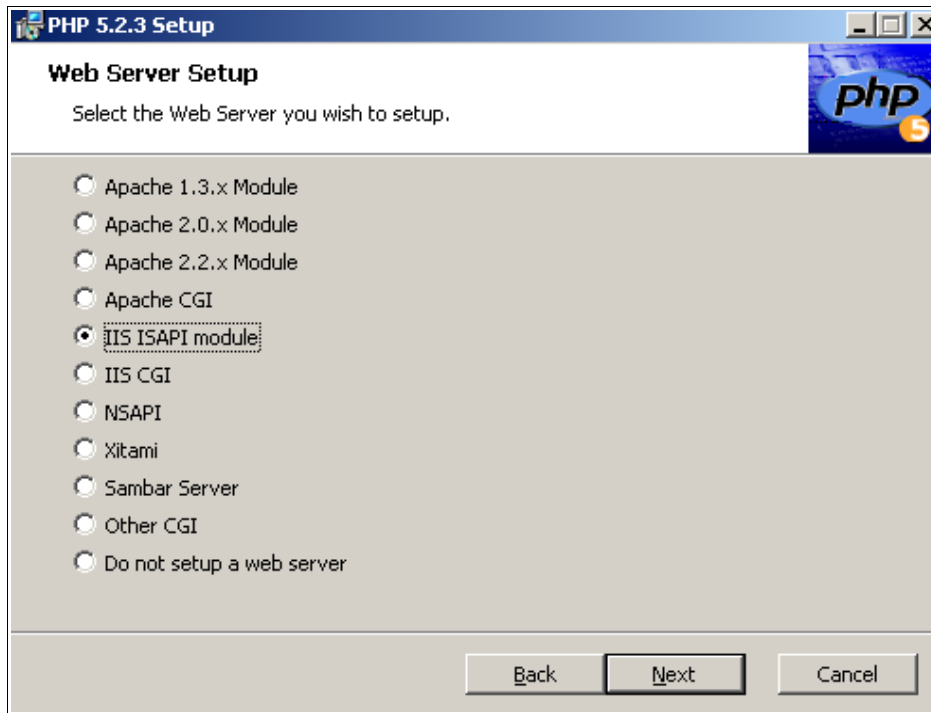
2. Check the Check Box in order to accept the license agreement then click on **Next button**.



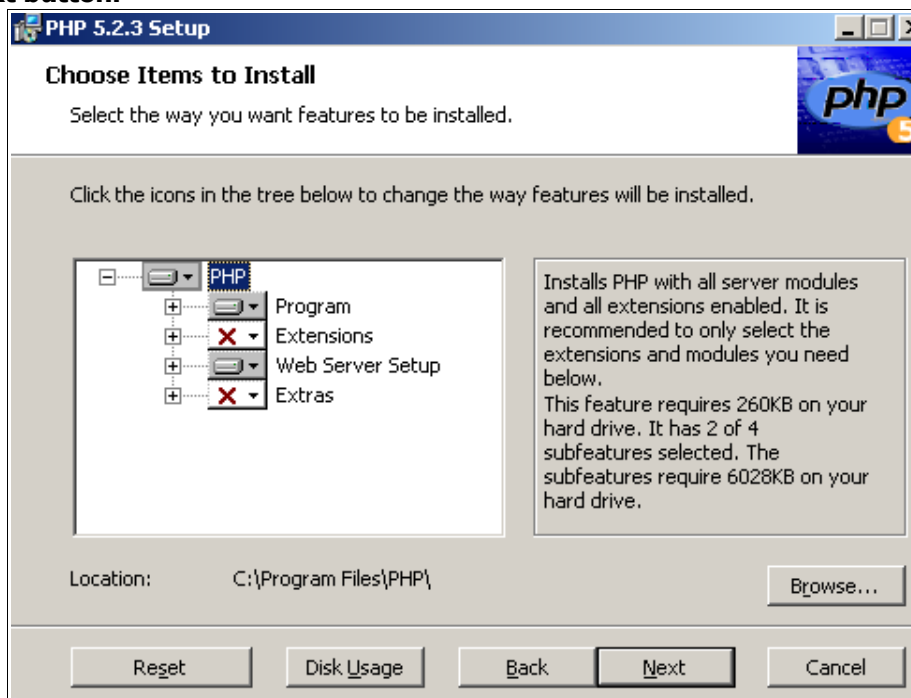
3. Browse the directory in order to save the PHP file then click on **Next button**.



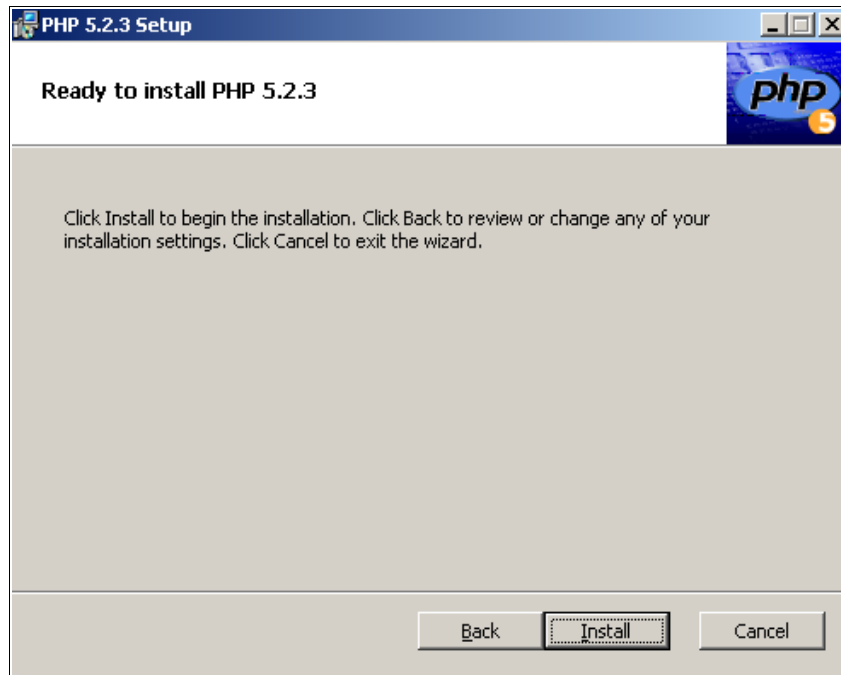
4. Select **IIS ISAPI module**



5. Click on **Next button**.



6. Click on **Install** button.



7. Click on **Finish** button.

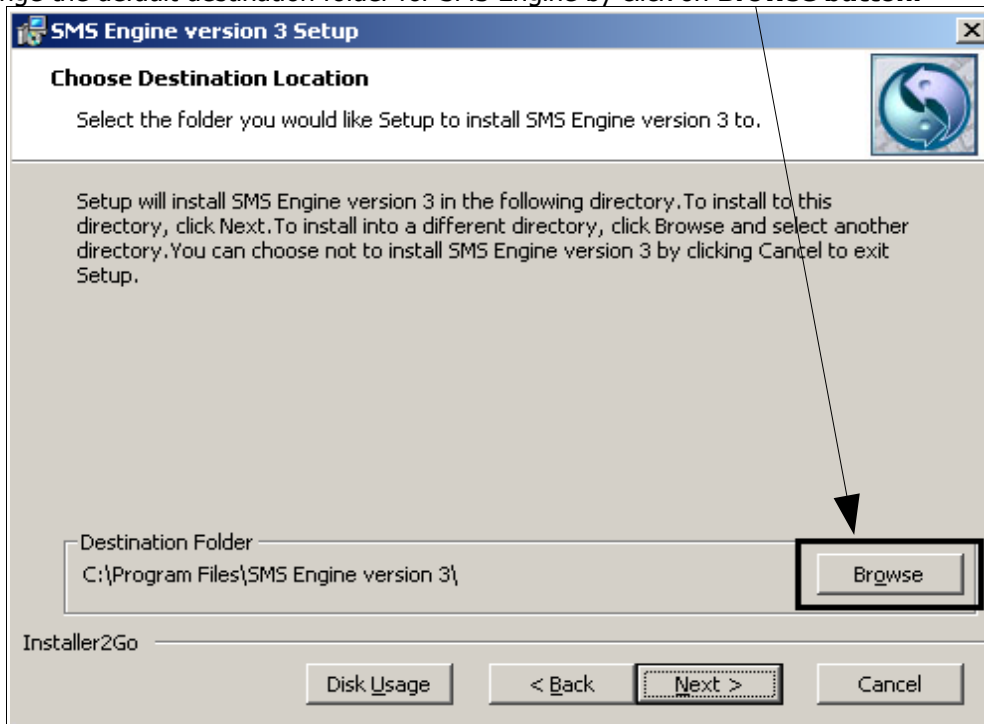


c) Add a new folder

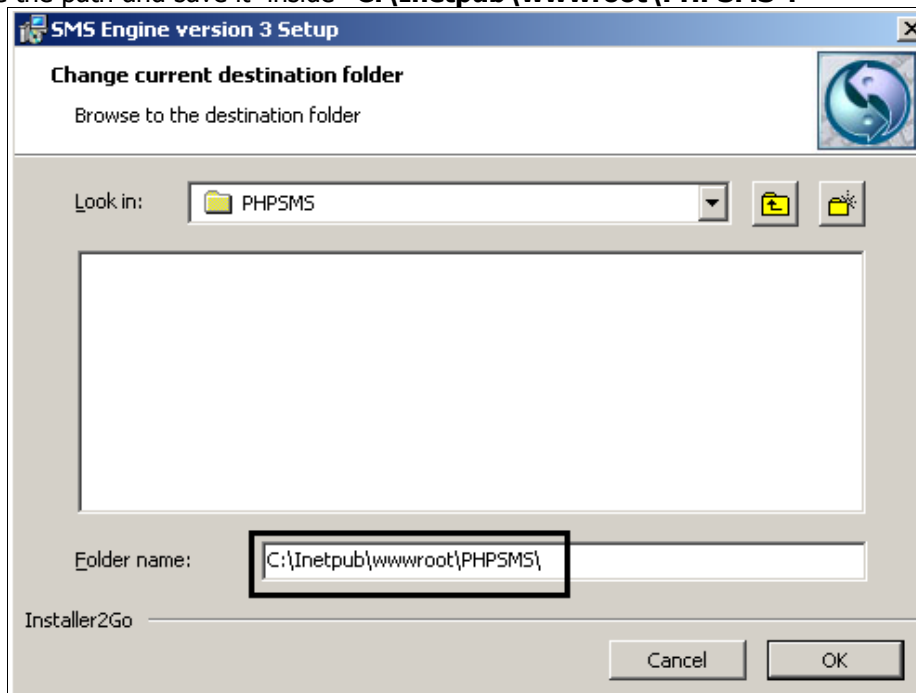
Add a new folder in “C:\inetpub\wwwroot\”, call it “PHPSMS”, e.g. “C:\inetpub\wwwroot\PHPSMS”

d) Install SMS Engine Basic Edition

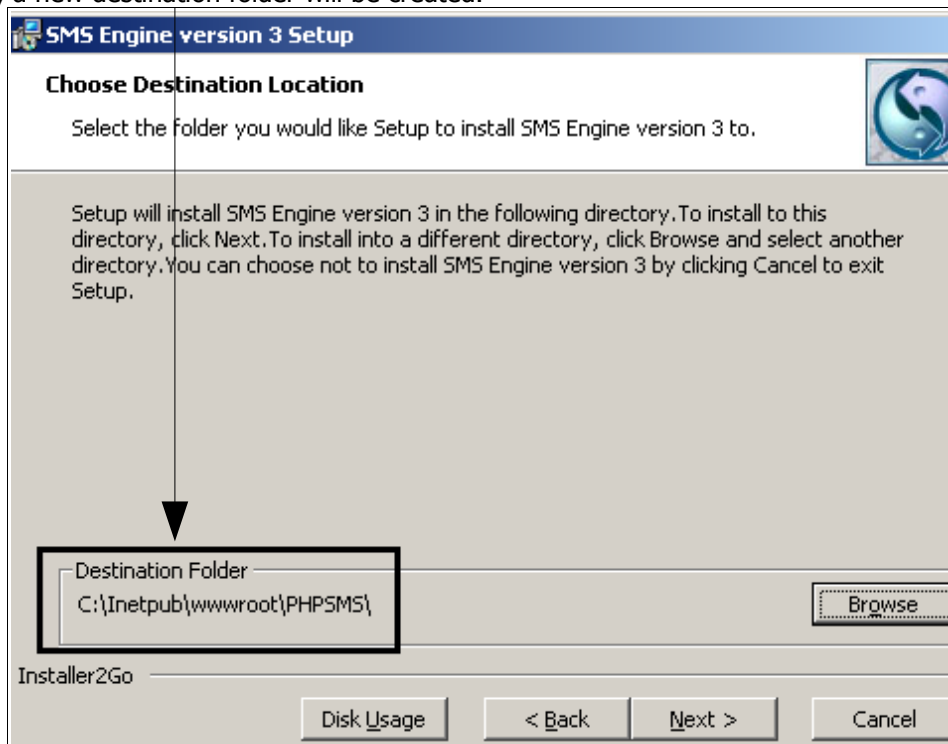
1. Run the “Setup.exe”.
2. **DO NOT install the SMS Engine version 5 at the default location** - “C:\Program Files”. The engine must be installed on the web server’s directory.
3. Change the default destination folder for SMS Engine by click on **Browse button**.



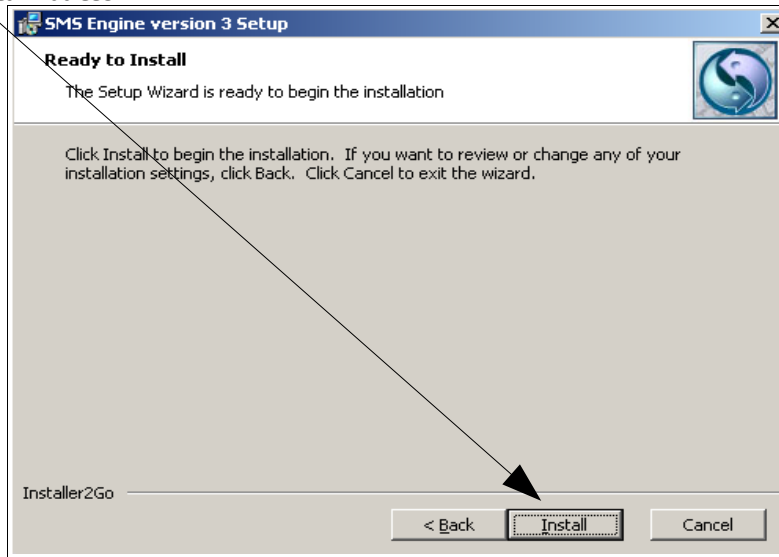
- 4. Browse the path and save it inside **"C:\Inetpub\wwwroot\PHPSMS"**.



- 5. Then, a new destination folder will be created.



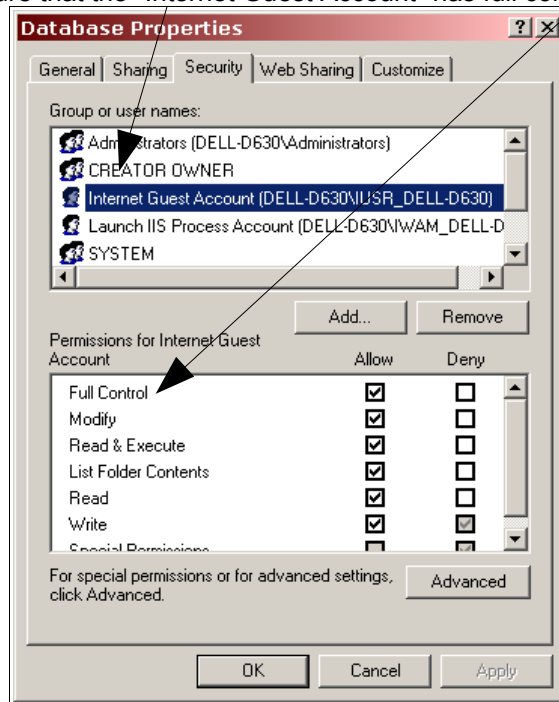
6. Click on **Install button**.



e) Configure security setting of folder

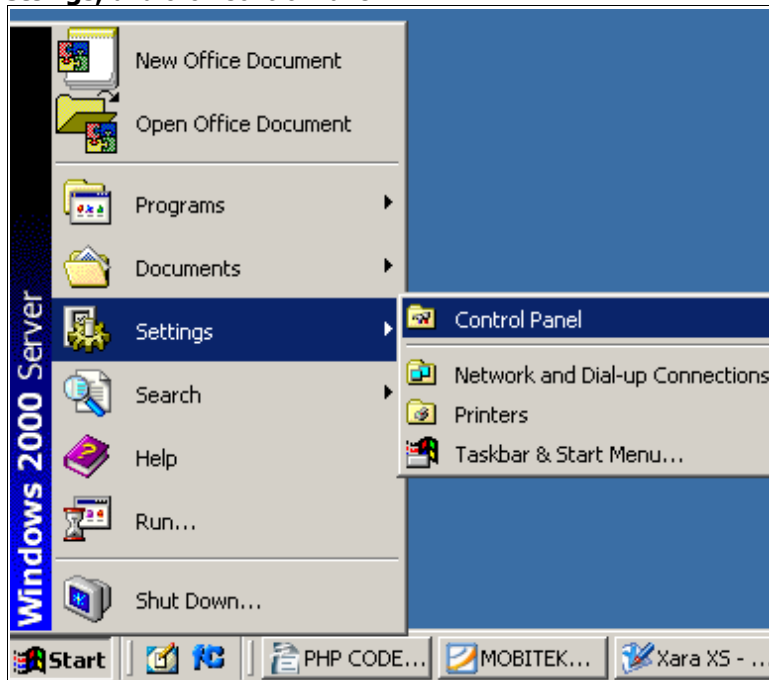
Right click on the folder – “C:\inetpub\wwwroot\PHPSMS\Database” and select “Sharing and Security”.

Refer to figure below, make sure that the "Internet Guest Account" has full control (all boxes are checked).

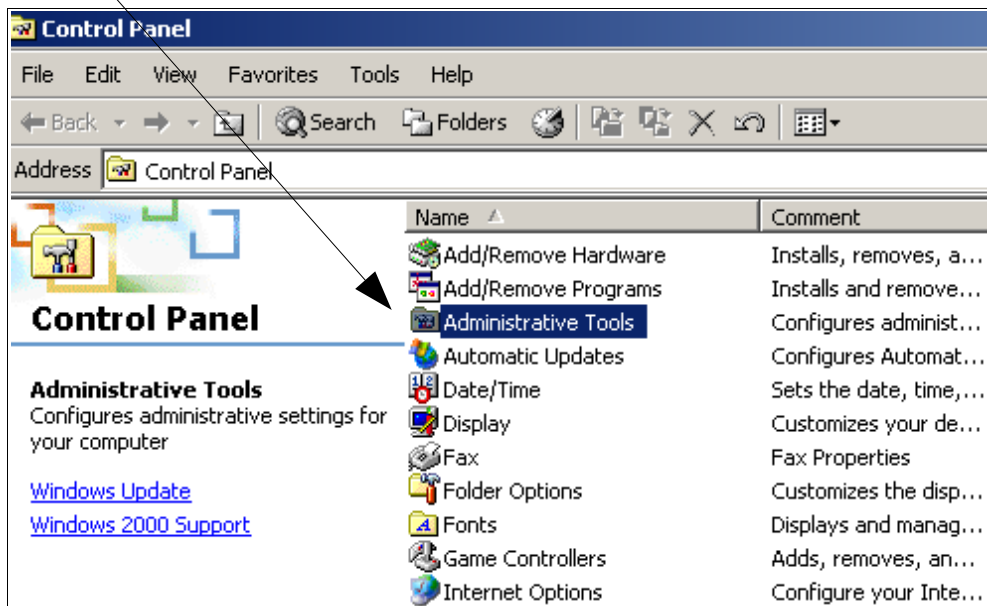


f) Configure ODBC

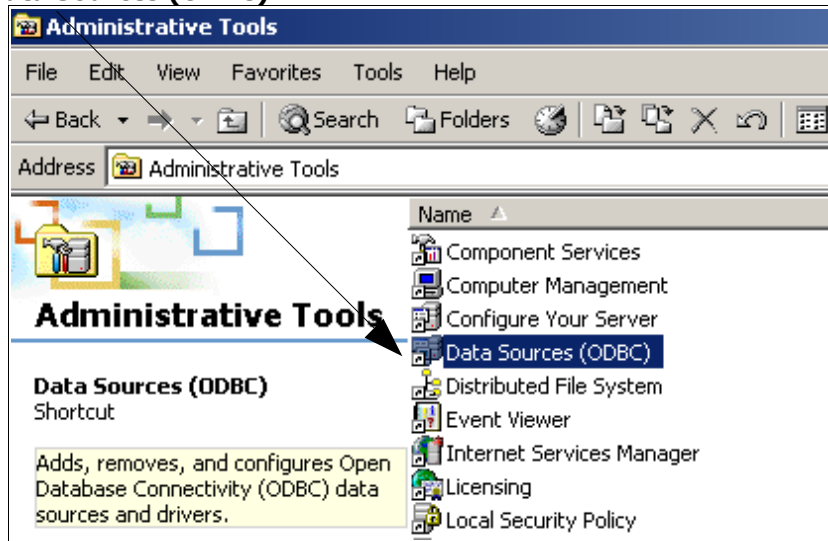
1. Click **Start**, click **Settings**, and click Control Panel.



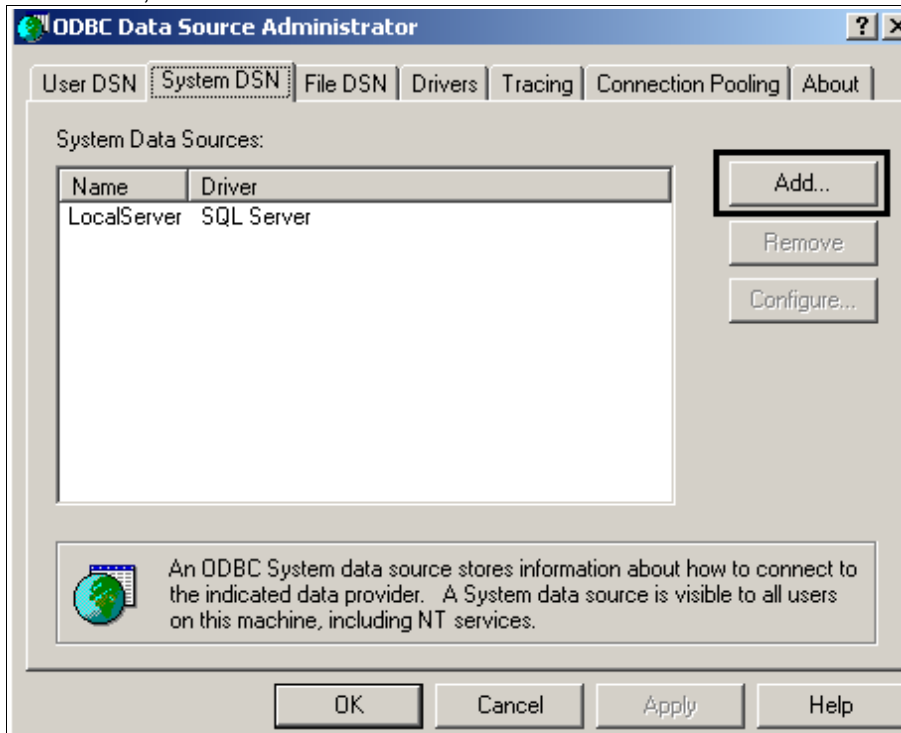
2. Click on **Administrative Tools**.



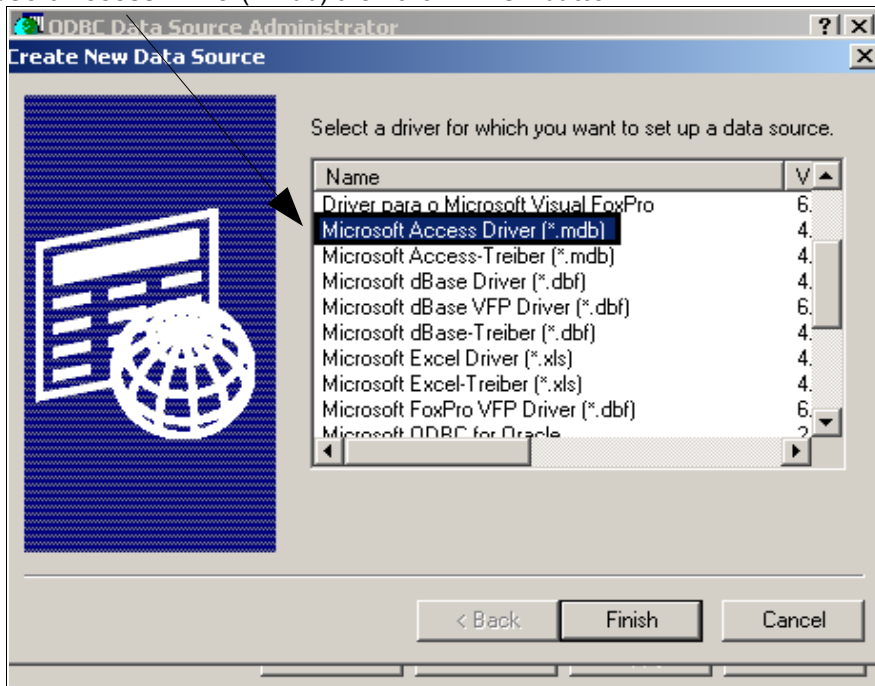
3. Then, click on **Data Sources (ODBC)**



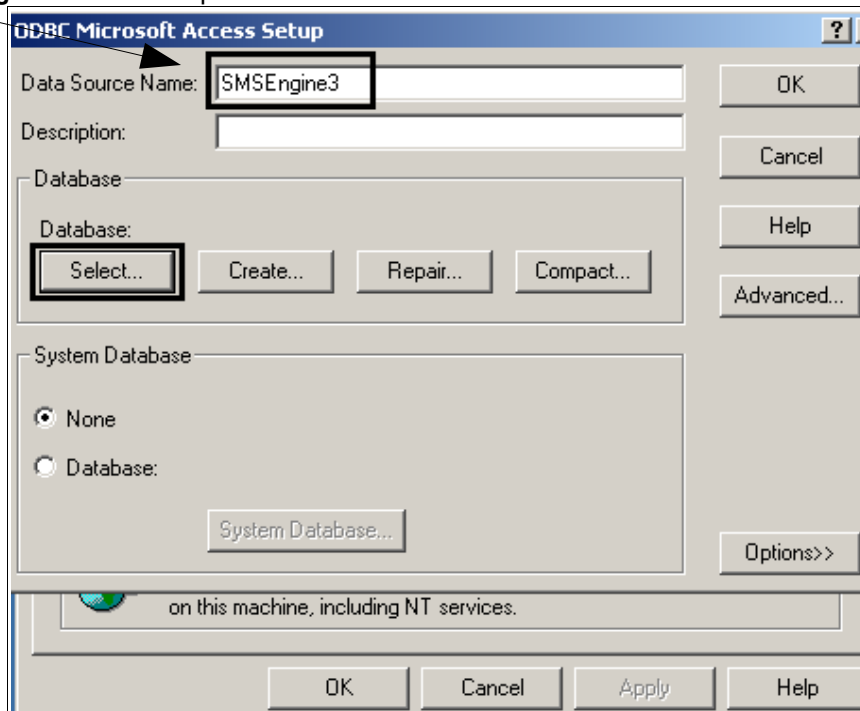
4. Choose System DSN tab, then click on **Add button**.



5. Find the **Microsoft Access Driver (*.mdb)** then click **Finish button**.

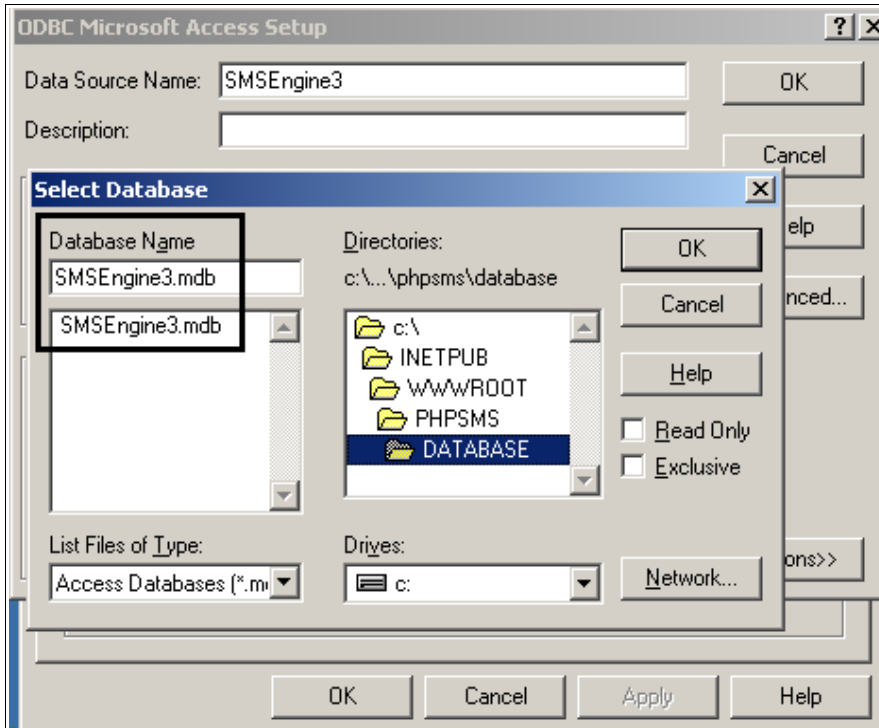


6. Type **“SMSEngine3”** into a field provided then click on **Select button**.

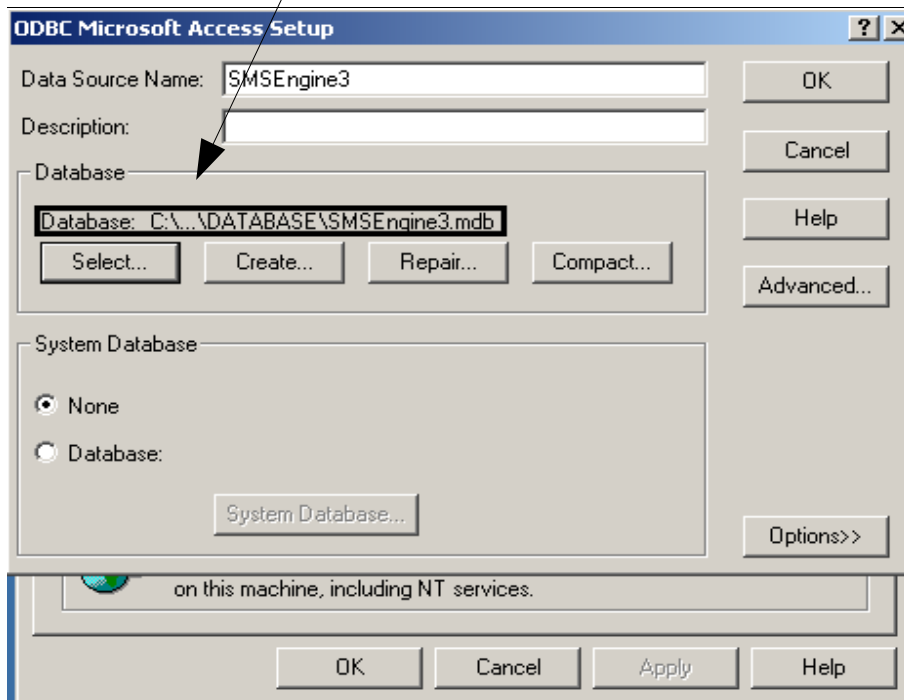


7. Locate the database file “SMSEngine5.mdb” at
 “C:\inetpub\wwwroot\PHPSMS\Database\SMSEngine5.mdb”

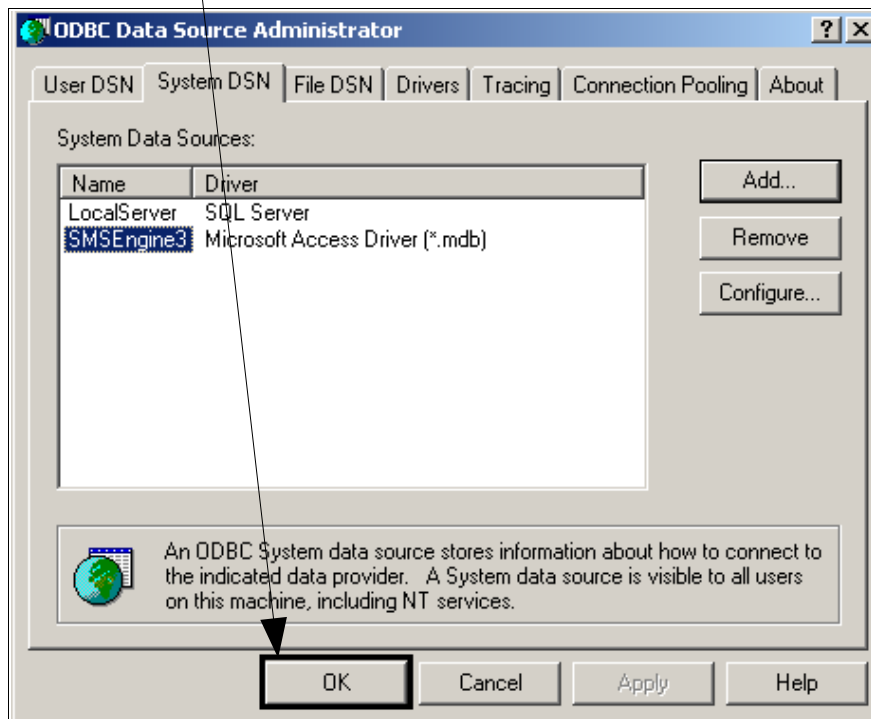
8. Click on **OK button**.



9. The directory of the database SMSEngine3 will be appear. Then click on **OK button**.



10. After completed, click on **OK button**.



g) Install PHP code

1. Copy these files to the directory -- "**C:\inetpub\wwwroot\PHPSMS**":
 - a) Index.htm
 - b) Outbox.htm
 - c) Outbox.php
 - d) ReadAllSMS.php
 - e) ReadNewSMS.php
 - f) SendSMS.php

8. INSTALLATION GUIDE – PHP WITH APACHE

You can either install PHP with IIS or PHP with Apache. This section will guide you on the installation of PHP with Apache. In this guide, we will use WAMP (<http://www.wampserver.com/en/download.php>) to install PHP and Apache.

a) Install Apache and PHP using WAMP

1. Run the “wamp5_1.7.2.exe”.
2. Follow the on-screen instructions to install the WAMP Server.

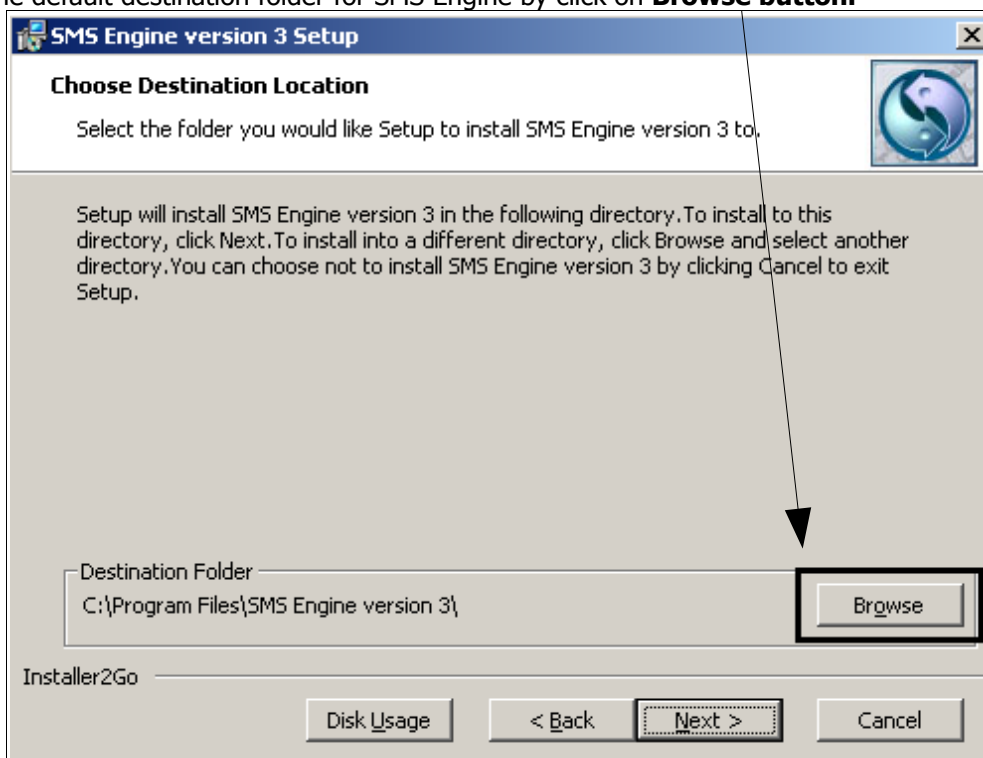
Note: WAMP means *Windows, Apache, MySQL and PHP*

b) Add a new folder

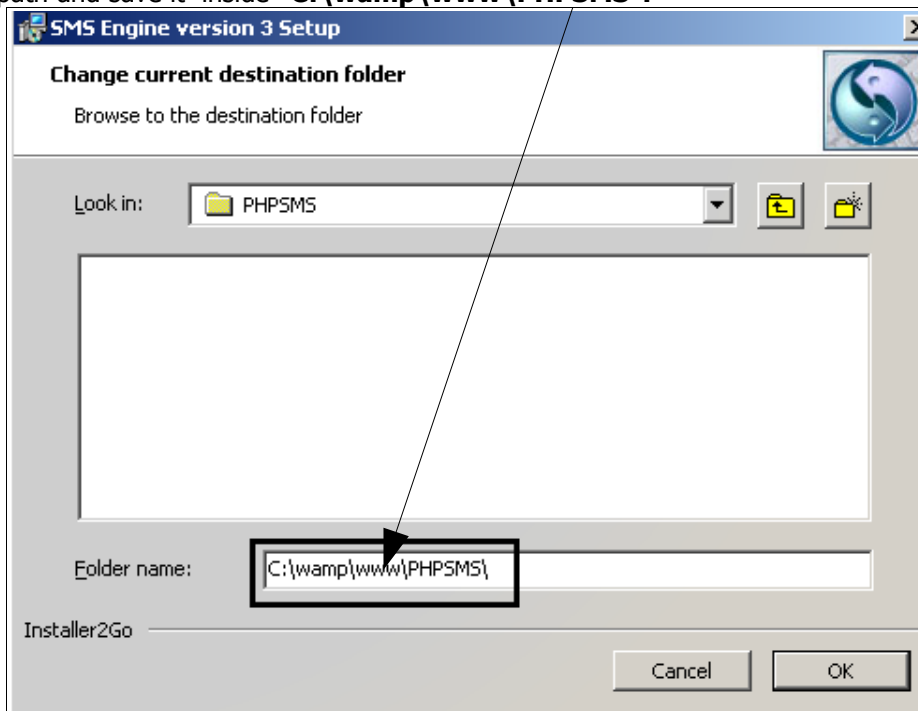
Add a new folder in “C:\wamp\www\”, and name it as “PHPSMS”. E.g. “C:\wamp\www\PHPSMS”

c) Install SMS Engine Basic Edition

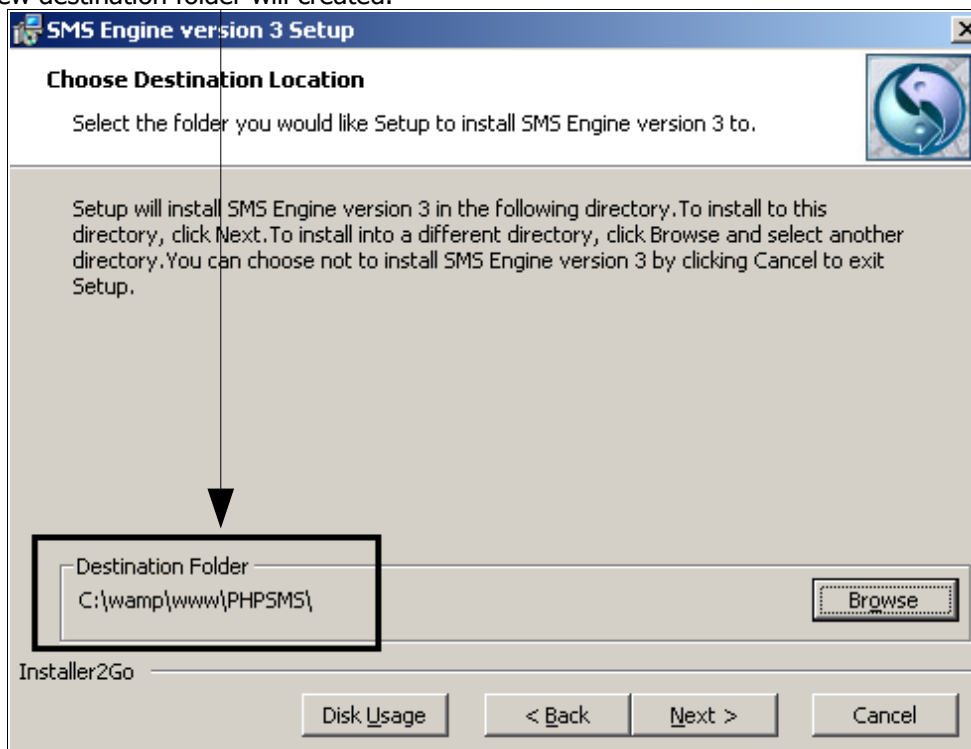
1. Run the “Setup.exe”.
2. **DO NOT install the SMS Engine version 5 at the default location** - “C:\Program Files”. The engine must be installed on the web server's directory.
3. Change the default destination folder for SMS Engine by click on **Browse button**.



4. Browse the path and save it inside **"C:\wamp\www\PHPSMS"**.

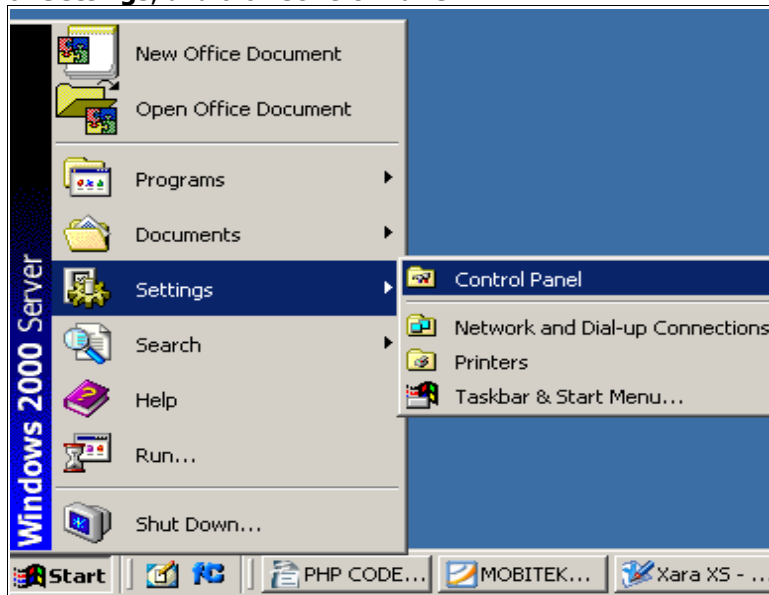


5. Then, a new destination folder will created.

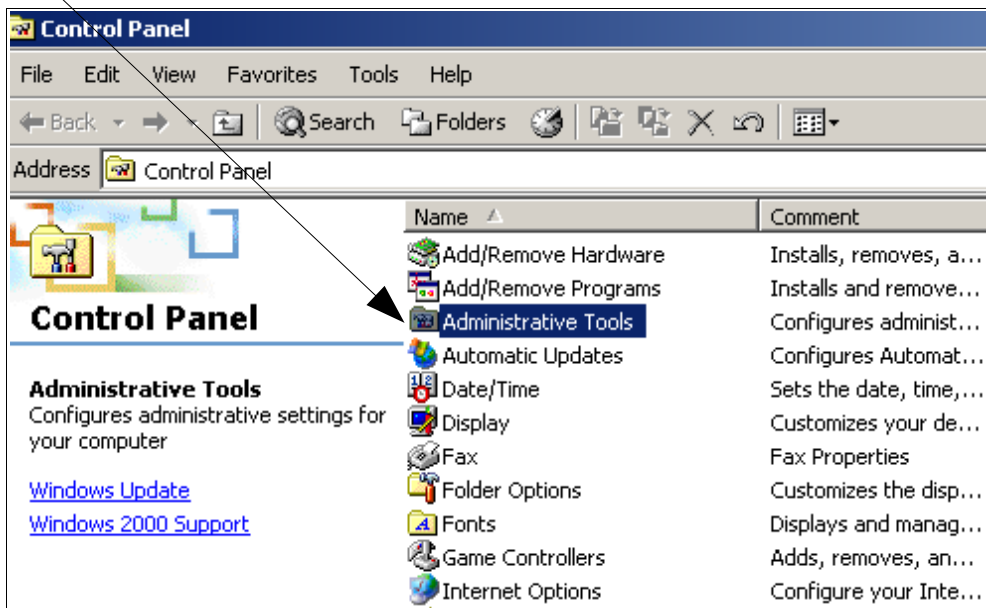


d) Configure ODBC

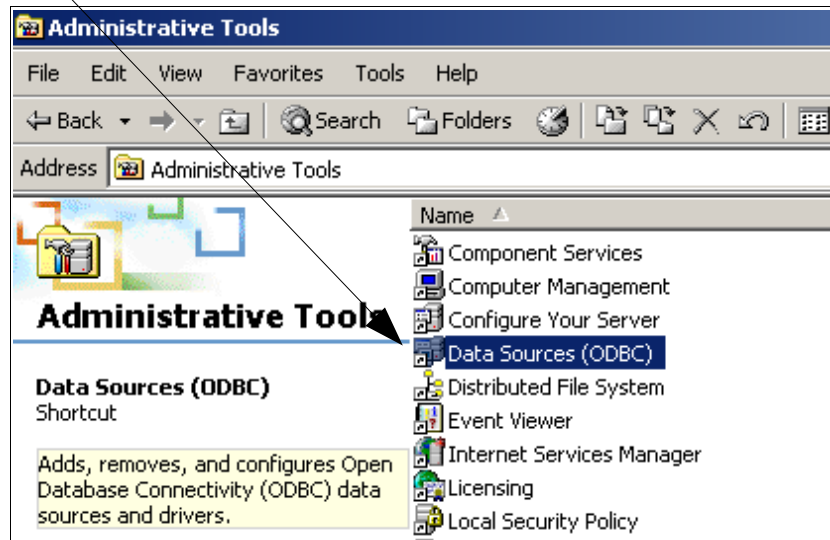
1. Click Start, click **Settings**, and click **Control Panel**.



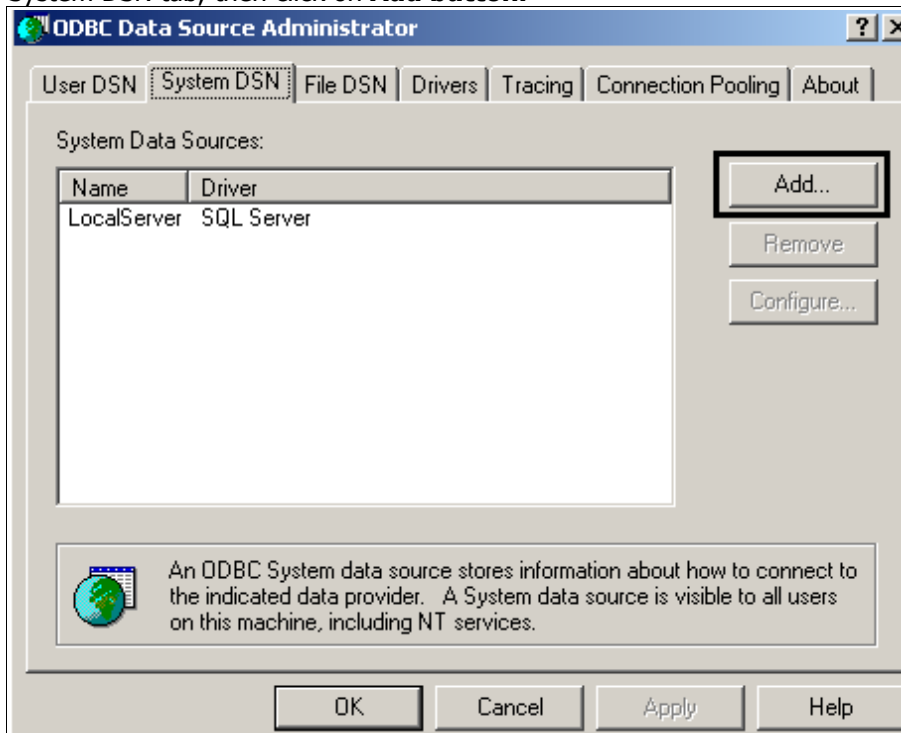
2. Click on Administrative Tools.



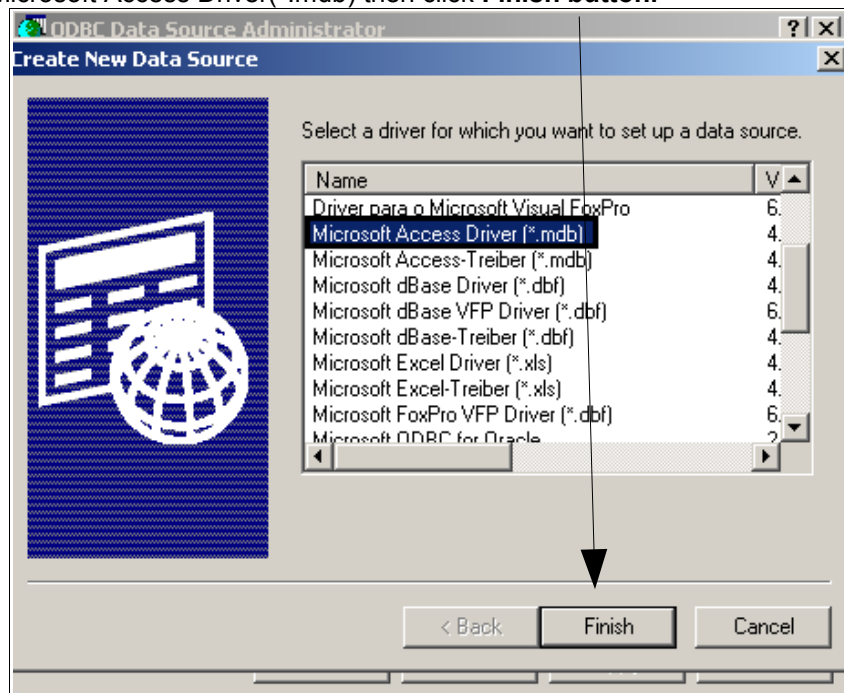
3. Then, click on **Data Sources (ODBC)**



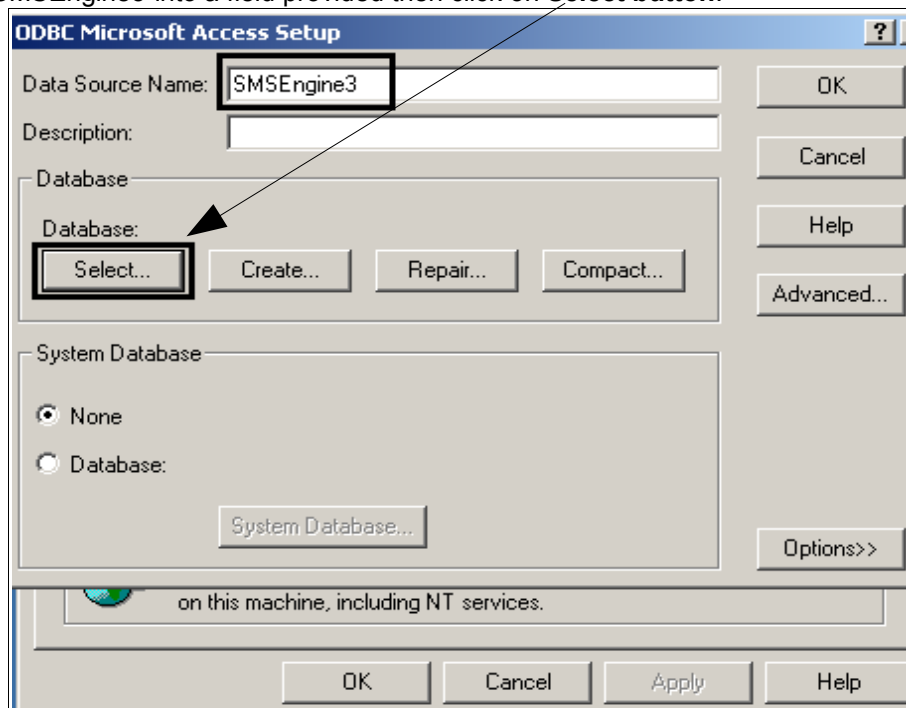
4. Choose System DSN tab, then click on **Add button**.



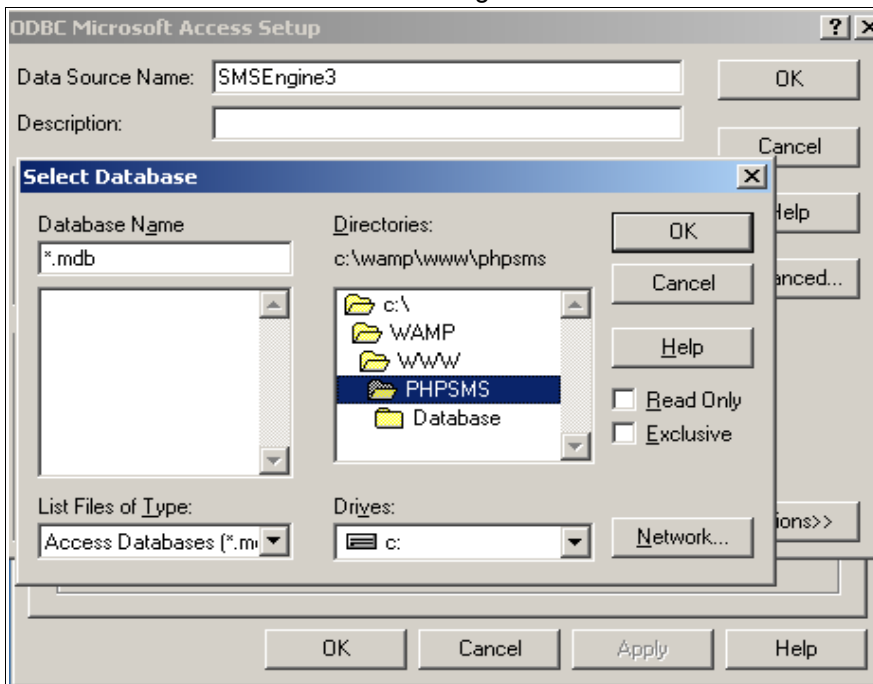
5. Find the Microsoft Access Driver(*.mdb) then click **Finish button**.



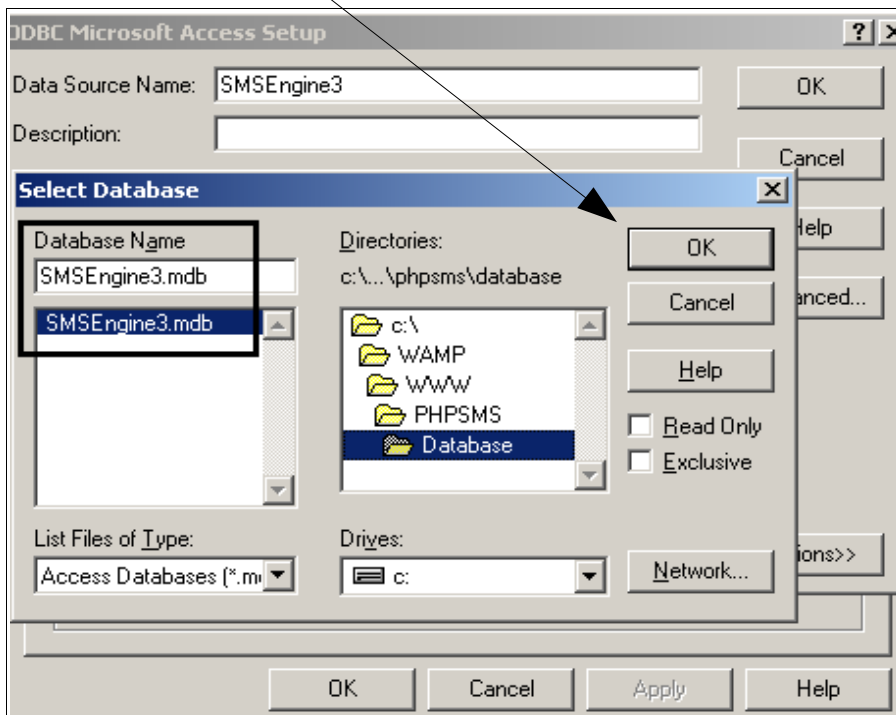
6. Type "SMSEngine3" into a field provided then click on **Select button**.



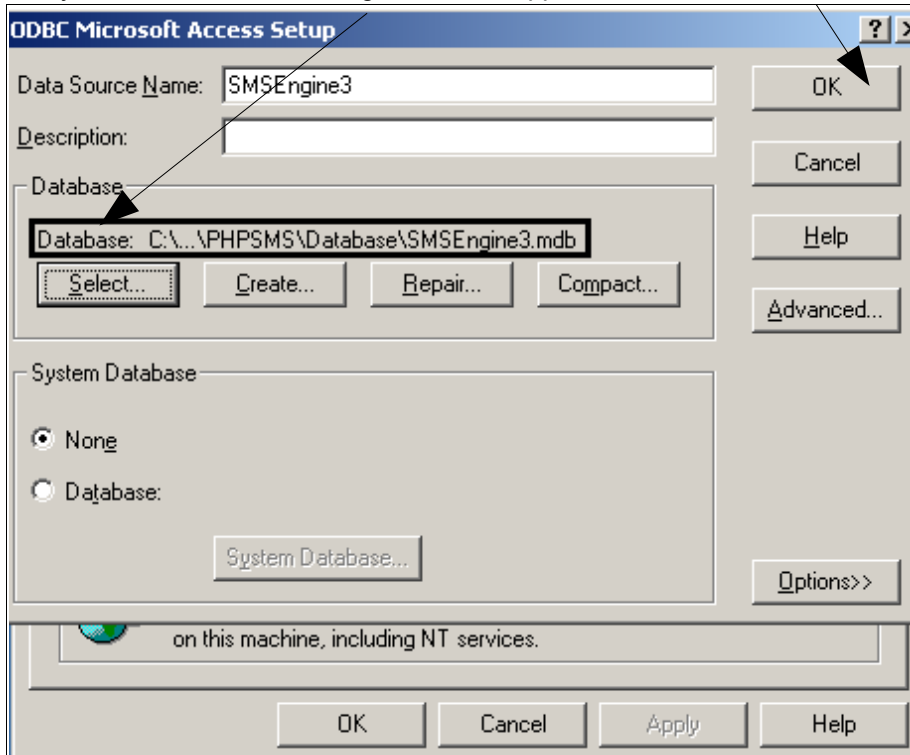
7. Locate the directories of the database in SMS Engine3.



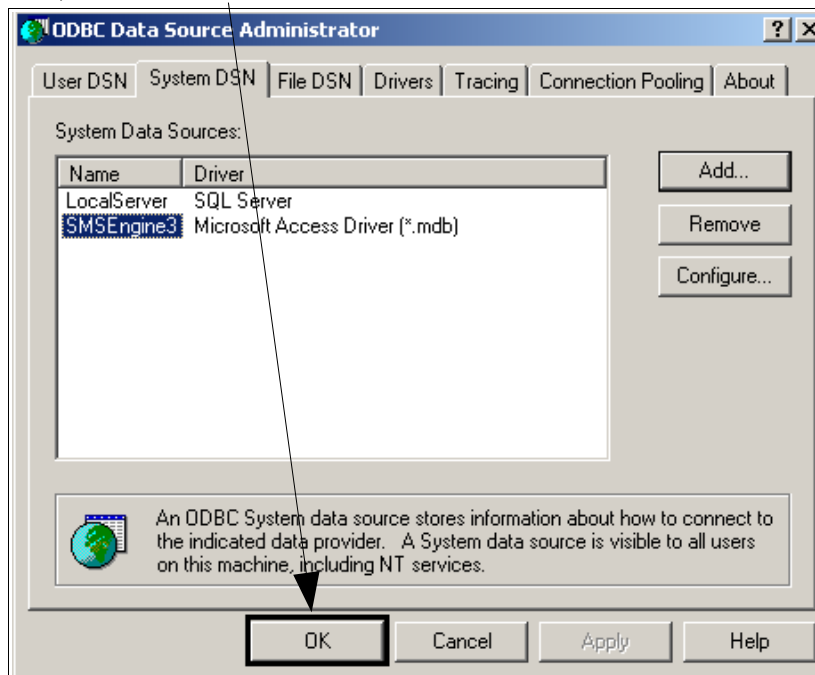
8. After found it, just click on **OK button**.



9. The directory of the database SMSEngine3 will be appear. Then click on **OK button**.



10. After completed, click on **OK button**.

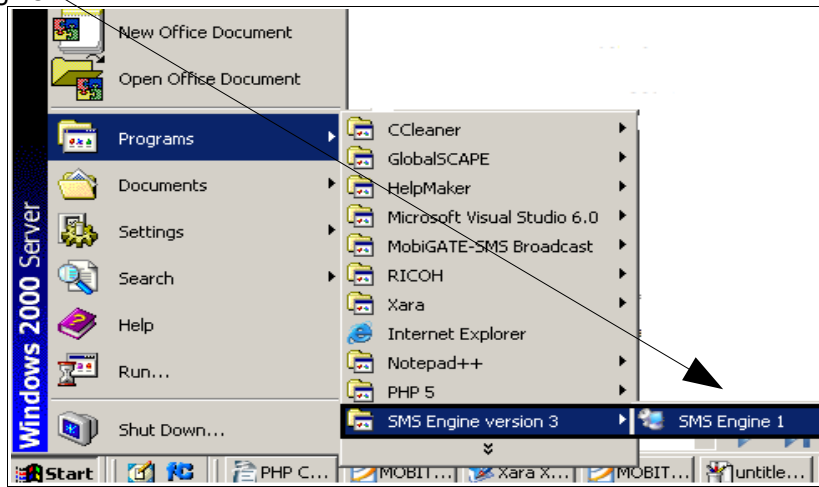


e) Installing PHP code

1. Copy these files to the directory -- “**C:\wamp\www\PHPSMS**”:
 - a) Index.htm
 - b) Outbox.htm
 - c) Outbox.php
 - d) ReadAllSMS.php
 - e) ReadNewSMS.php
 - f) SendSMS.php

9. TESTING THE SMS GATEWAY

1. Run the SMS Engine



2. Click on **Setting** then choose **SMS Modem Setting**.



3. After finish up configure the GSM modem, click on **Save Setting button.**

SIM Setting
SIM Card no: also known as MSISDN
PIN: to unlock SIM operator depending on the number

Modem
COM: Enter the port number which the GSM Modem is connected to the PC
Poll: Set how frequent the SMS Engine should access the database. If you set it to 3 seconds, then the SMS Engine will read incoming SMS, store into Inbox and query the Outbox to send out SMS in every 3 seconds.
Delivery Status Report: If checked, SMS Engine will check for the report for each outgoing SMS.

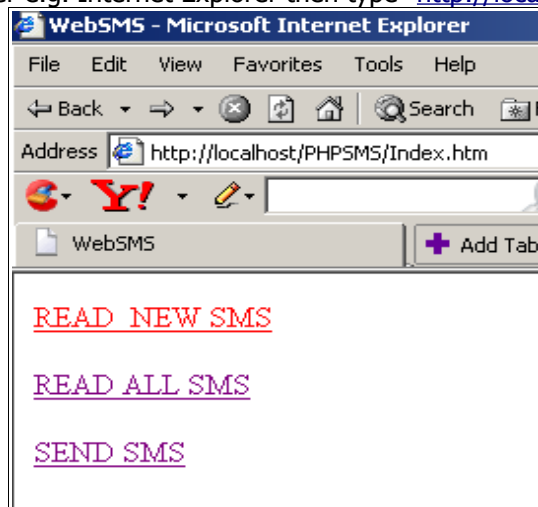
Routing: Check "All" to instruct SMS Engine to send SMS to all mobile numbers or checked the appropriate box to instruct SMS Engine to send out SMS selective numbers only. If you set to Maxis (012), then the SMS Engine will only send SMS to mobile numbers starting with 012 only.

Direction: Set the GSM modem to 2 way, 1 way read only, or 1 way send only. If you set it to 1 way read, the SMS Engine will only read incoming SMS and will not send out.

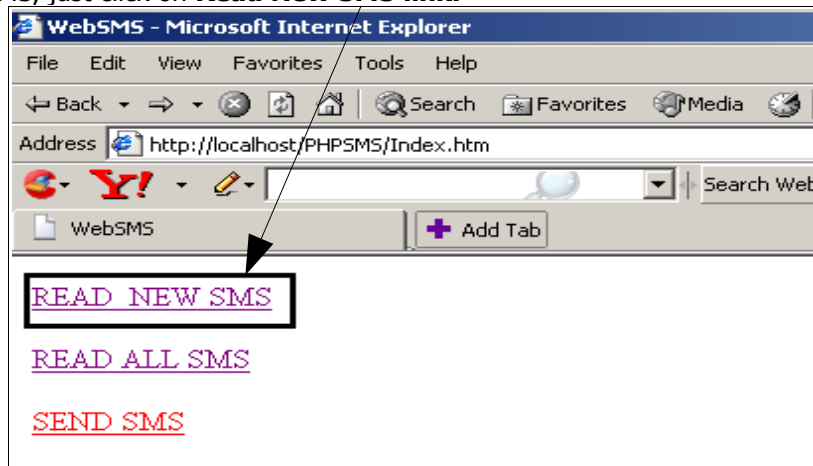
4. Click on **Start button**.



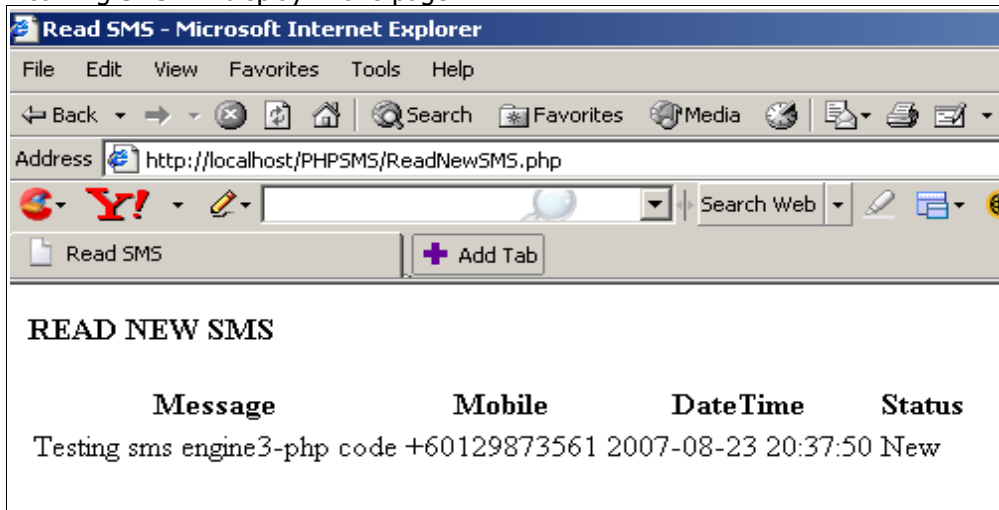
5. After that, run a web browser e.g. Internet Explorer then type "<http://localhost/PHPSMS/Index.htm>".



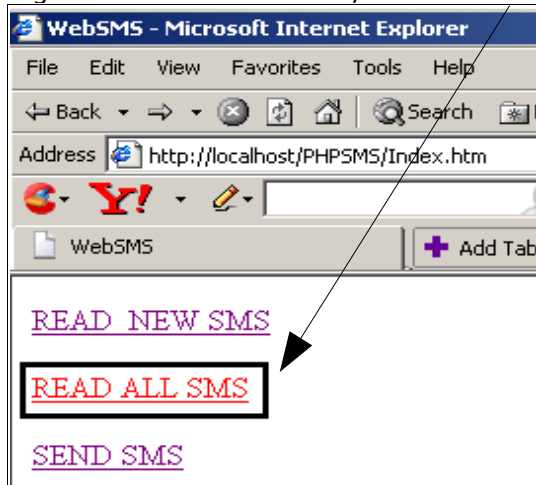
6. To read a new SMS, just click on **Read New SMS link**.



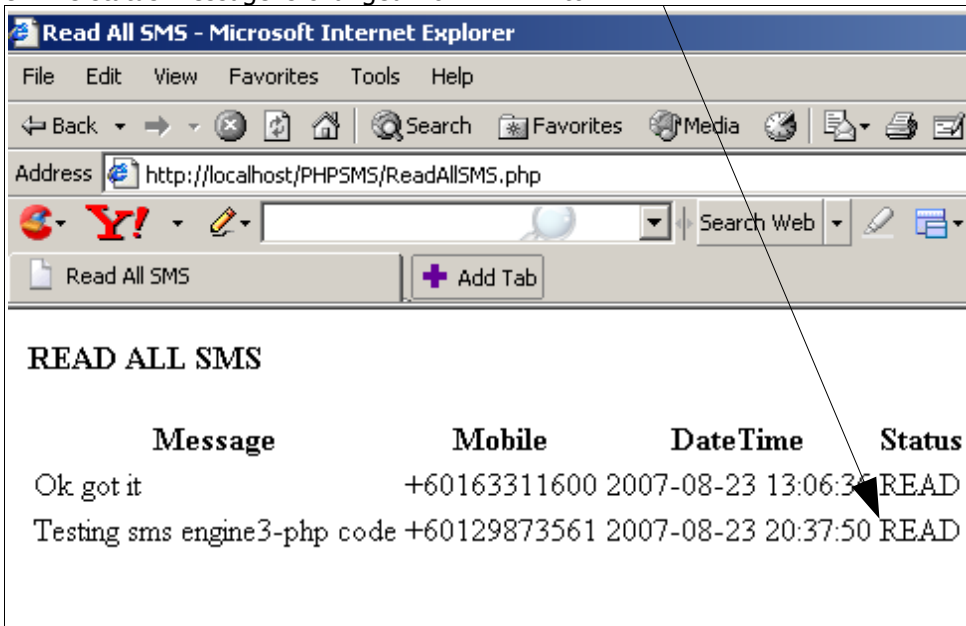
7. The new incoming SMS will display in this page.



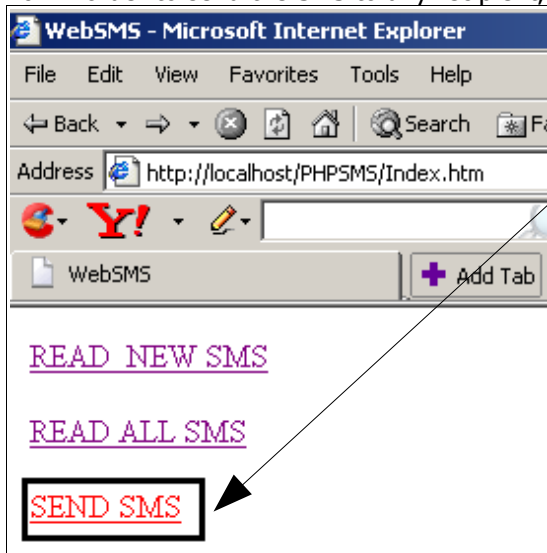
8. In order to view all the incoming SMS that have been read, click on **Read ALL SMS link**.



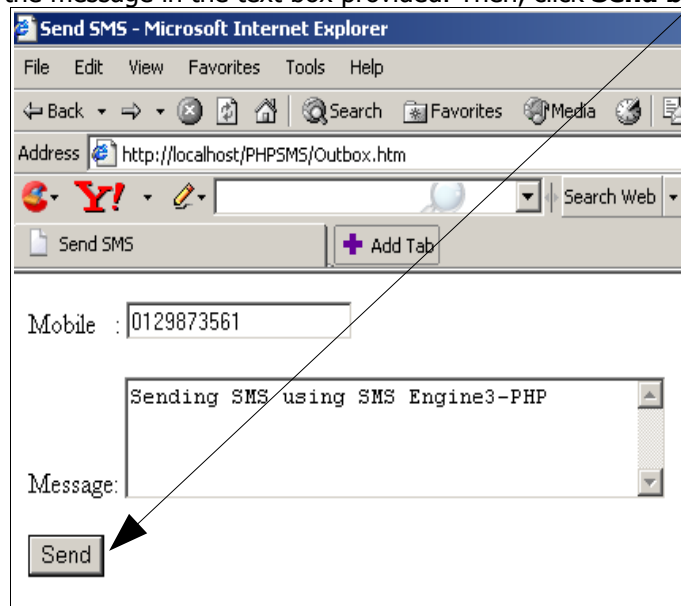
9. The status message is changed from "NEW" to "READ".



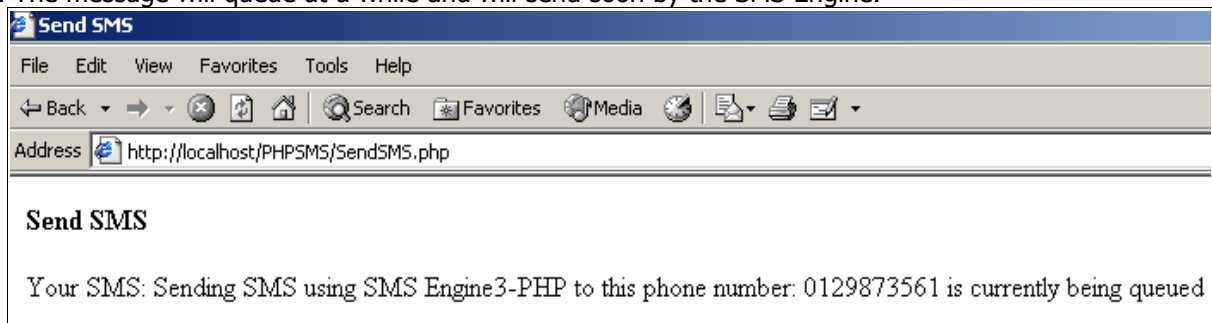
10. In order to send the SMS to any recipient, click on **Send SMS link**.



11. Type the mobile and the message in the text box provided. Then, click **Send button**.



12. The message will queue at a while and will send soon by the SMS Engine.



10. PHP SOURCE CODE

a) READ ALL INCOMING SMS

```
<HTML>
<head>
<title>Read All INCOMING SMS</title>

</head>

<body bgcolor="white" text="black" link="blue" vlink="purple" alink="red">

<p><b> READ ALL INCOMING SMS </b></p>
<?php
/*
=====
Copyright 2007 by MOBITEK System Sdn. Bhd.

Acknowledgement: Mr. Mohd Najmi Bin Selamat (student of MULTIMEDIA UNIVERSITY
MALAYSIA)has contributed to the development of this programme.

Terms and Conditions
1. License condition: you are allowed to use, modify, distribute, this PHP
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2. This source code is provided on "as-is" basis. No warranty nor support is
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4. MOBITEK System Sdn. Bhd. EXPRESSLY DISCLAIMS ANY WARRANTIES
5. MOBITEK System Sdn. Bhd. SHALL NOT BE LIABLE TO YOU OR ANYONE ELSE FOR ANY
LOSS OR DAMAGES WHATSOEVER
=====
*/

//the DSN is "SMSEngine3", please rename if your DSN is different
//establish connection to Access database via ODBC
$conn=odbc_connect('SMSEngine3','','');
if (!$conn)
{exit("Connection Failed: " . $conn);}
```

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```
//read all incoming SMS and display in a table
$sql="SELECT Message, Mobile, DateTime, Status FROM Inbox ORDER BY
DateTime";
$rs=odbc_exec($conn,$sql);
if (!$rs)
    {exit("Error in SQL");}

//----- display in table -----
echo "<table><tr>";
echo "<th>Message</th>";
echo "<th>Mobile</th>";
echo "<th>DateTime</th>";
echo "<th>Status</th></tr>";

while (odbc_fetch_row($rs))
{

    $message=odbc_result($rs,"Message");
    $mobile=odbc_result($rs,"Mobile");
    $datetime=odbc_result($rs,"DateTime");
    $status=odbc_result($rs,"Status");

    echo "<tr><td>$message</td>";
    echo "<td>$mobile</td>";
    echo "<td>$datetime</td>";
    echo "<td>$status</td></tr>";

}

echo "</table>";
//----- display in table -----

//close connection to database
odbc_close($conn);

?>

</body>
</html>
```

b) READ NEW SMS

```
<html>

<head>
<title>Read SMS</title>

</head>

<body bgcolor="white" text="black" link="blue" vlink="purple" alink="red">

<p><b> READ NEW SMS </b></p>
<?php
/*
=====
Copyright 2007 by MOBITEK System Sdn. Bhd.

Acknowledgement: Mr. Mohd Najmi Bin Selamat (student of MULTIMEDIA UNIVERSITY
MALAYSIA) has contributed to the development of this programme.

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1. License condition: you are allowed to use, modify, distribute, this PHP
code for free
2. This source code is provided on "as-is" basis. No warranty nor support is
provided on the use of the code
3. BY USING THIS CODE, YOU ASSUME ALL THE RISK AND RESPONSIBILITY
4. MOBITEK System Sdn. Bhd. EXPRESSLY DISCLAIMS ANY WARRANTIES
5. MOBITEK System Sdn. Bhd. SHALL NOT BE LIABLE TO YOU OR ANYONE ELSE FOR ANY
LOSS OR DAMAGES WHATSOEVER
=====
*/
//the DSN is "SMSEngine3", please rename if your DSN is different
//establish connection to Access database via ODBC
$conn=odbc_connect('SMSEngine3','','');
if (!$conn)
    {exit("Connection Failed: " . $conn);}

//read new incoming SMS
$sql="SELECT Message, Mobile, DateTime, Status FROM Inbox WHERE STATUS =
'New'";
```

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```

    $rs=odbc_exec($conn,$sql);
    if (!$rs)
        {exit("Error in SQL");}

//----- display in table -----
echo "<table><tr>";
    echo "<th>Message</th>";
    echo "<th>Mobile</th>";
    echo "<th>DateTime</th>";
    echo "<th>Status</th></tr>";

while (odbc_fetch_row($rs))
{
    $message=odbc_result($rs,"Message");
    $mobile=odbc_result($rs,"Mobile");
    $datetime=odbc_result($rs,"DateTime");
    $status=odbc_result($rs,"Status");

    echo "<tr><td>$message</td>";
    echo "<td>$mobile</td>";
    echo "<td>$datetime</td>";
    echo "<td>$status</td></tr>";
}

echo "</table>";
//----- display in table -----

//change status from "New" to "Read"
$sql = "UPDATE Inbox SET Status = 'Read' WHERE Status = 'New' ";
$rs2=odbc_exec($conn,$sql);
if (!$rs2)
    {exit("Error in SQL");}

//close connection to database
odbc_close($conn);

?>

</body>

```

</html>

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c) SEND SMS

```
<html>

<head>
<title>Send SMS</title>

</head>

<body bgcolor="white" text="black" link="blue" vlink="purple" alink="red">

<p> <b>Send SMS </b><p>

<?php
/*
=====
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Acknowledgement: Mr. Mohd Najmi Bin Selamat (student of MULTIMEDIA UNIVERSITY
MALAYSIA) has contributed to the development of this programme.

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LOSS OR DAMAGES WHATSOEVER
=====
*/

//the DSN is "SMSEngine3", please rename if your DSN is different
//establish connection to Access database via ODBC
$conn = odbc_connect('SMSEngine3','','');
if (!$conn)
    {exit("Connection Failed: " . $conn);}
```

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```
//queue outgoing SMS into Outbox table
$sql="INSERT INTO Outbox (Message, Mobile, DateTimeQueue, SentStatus)
VALUES ('$_POST[Message]', '$_POST[Mobile]', date(), 'P')";
$rs=odbc_exec($conn, $sql);

echo "Your message - '" . $_REQUEST["Message"] . "' to this
phone number - '" . $_REQUEST["Mobile"] . "' is being queued. It will be
send out in a moment.";

//close connection to database
odbc_close($conn);

?>
</body>
</html>
```

d) DISPLAY ALL OUTGOING SMS

```
<html>

<head>
<title>DISPLAY All OUTGOING SMS</title>

</head>

<body bgcolor="white" text="black" link="blue" vlink="purple" alink="red">

<p><b>DISPLAY All OUTGOING SMS</b></p>
<?php
/*
=====
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                has contributed to the development of this programme

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LOSS OR DAMAGES WHATSOEVER
=====
*/

    //the DSN is "SMSEngine3", please rename if your DSN is different
    //establish connection to Access database via ODBC
    $conn=odbc_connect('SMSEngine3','','');
    if (!$conn)
        {exit("Connection Failed: " . $conn);}

    //read all incoming SMS and display in a table
```

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```
$sql="SELECT Message, Mobile, DateTimeSent, SentStatus, DateTimeDeliver,
DeliveryStatus FROM Outbox ORDER BY DateTimeSent";
$rs=odbc_exec($conn,$sql);
if (!$rs)
    {exit("Error in SQL");}

//----- display in table -----
odbc_result_all($rs);

//close connection to database
odbc_close($conn);

?>

</body>
</html>
```

11. TERMS AND CONDITIONS ON THE USE OF THE PHP SOURCE CODE

Acknowledgement: Mr. Mohd Najmi Bin Selamat (student of MULTIMEDIA UNIVERSITY MALAYSIA) has contributed to the development of this source code and programme.

1. This sample code is to be used with SMS Engine. SMS Engine is one of the development tool in MOBITEK SMS Gateway Development Kit.
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