Procedure to run perl script:

unix:
1.configure your apache server to run perl scripts ending with .pl or .cgi
2.Place your perl scripts in the following path /var/lib/cgi-bin/
3.Give permissions for perl file using chmod 777 command
4.Finally open browser and type: localhost/cgi-bin/prg_name.pl or cgi

windows:
1.install xampp in your system
2.in perl file replce #!/usr/bin/perl by C:\xampp\perl\bin\perl.exe
3.place your perl file in C:\xampp\cgi-bin\

1 A. PROGRAM TO DISPLAY THE VARIOUS SERVER INFORMATION LIKE – SERVER NAME, SERVER SOFTWARE, SERVER PROTOCOL, CGI-REVISION ETC.

HTML FILE:

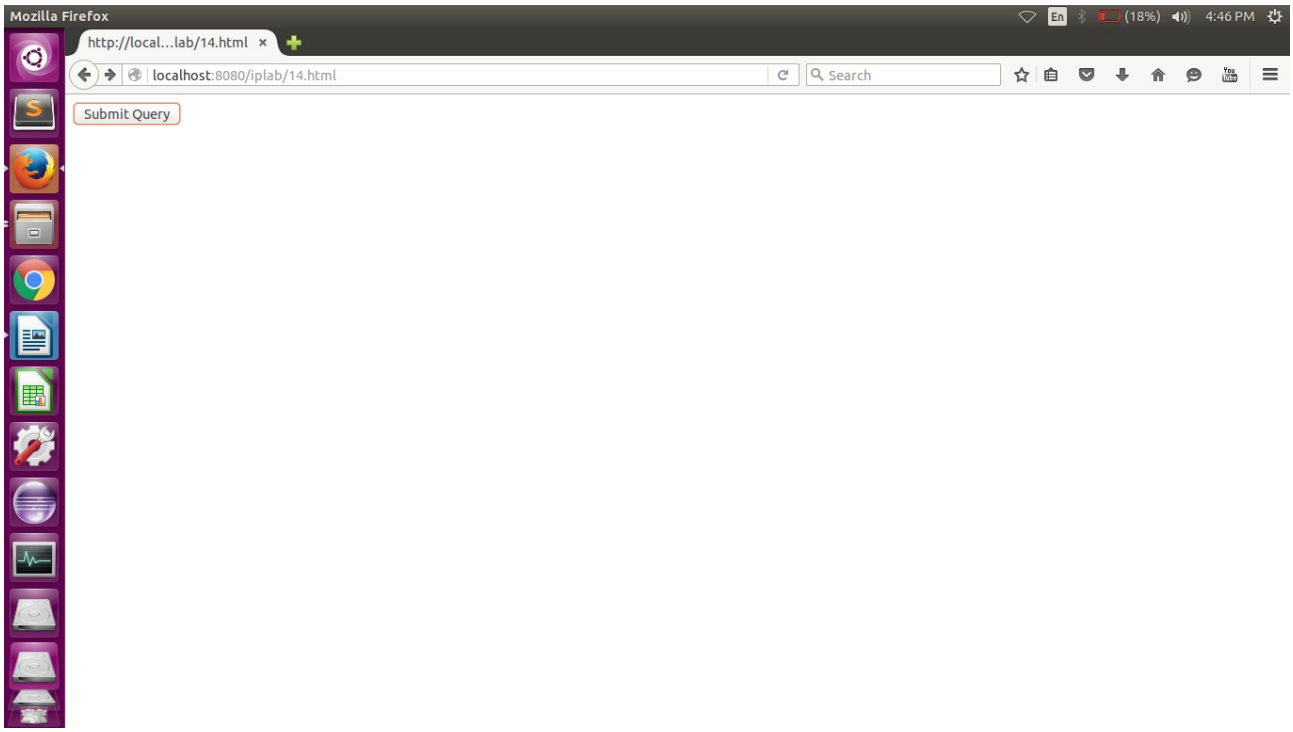
```
<html>
<head><title>SERVER INFORMATION!</title></head>
<body>
<h1>SERVER INFORMATION</h1>
<hr>
<form action="http://localhost/cgi-bin/serinfo.pl" method="get">
<input type="submit" value="submit form">
</form>
<hr>
</body>
</html>
```

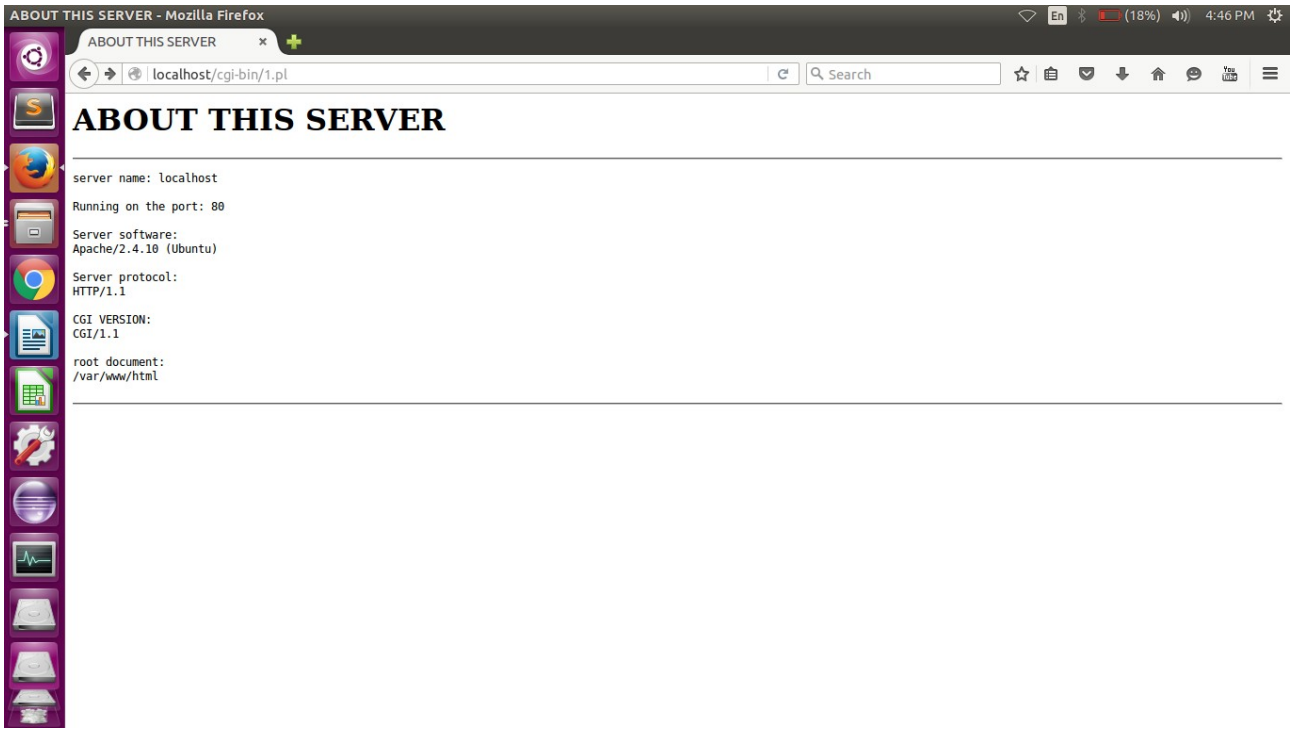
PERL SCRIPT:

```
#!/usr/bin/perl
print "content-type: text/html", "\n\n";
print "<HTML>", "\n";
print "<HEAD><TITLE>ABOUT THIS SERVER</TITLE></HEAD>", "\n";
print "<BODY><H1>ABOUT THIS SERVER</H1>", "\n";
print"<HR><PRE>";
print "server name: ", $ENV{'SERVER_NAME'}, "<br>", "\n";
print "Running on the port: ", $ENV{'SERVER_PORT'}, "<br>", "\n";
print "Server software:
", $ENV{'SERVER_SOFTWARE'}, "<br>", "\n";
print "Server protocol:
", $ENV{'SERVER_PROTOCOL'}, "<br>", "\n";
print "CGI VERSION:
", $ENV{'GATEWAY_INTERFACE'}, "<br>", "\n";
print "root document:
", $ENV{'DOCUMENT_ROOT'}, "<br>", "\n";
print "<HR></PRE>", "\n";
```

```
print "</BODY></HTML>", "\n";
exit(0);
```

OUTPUT:





1 B. PROGRAM TO ACCEPT UNIX COMMAND FROM HTML FORM AND TO DISPLAY THE OUTPUT OF THE COMMAND EXECUTED.

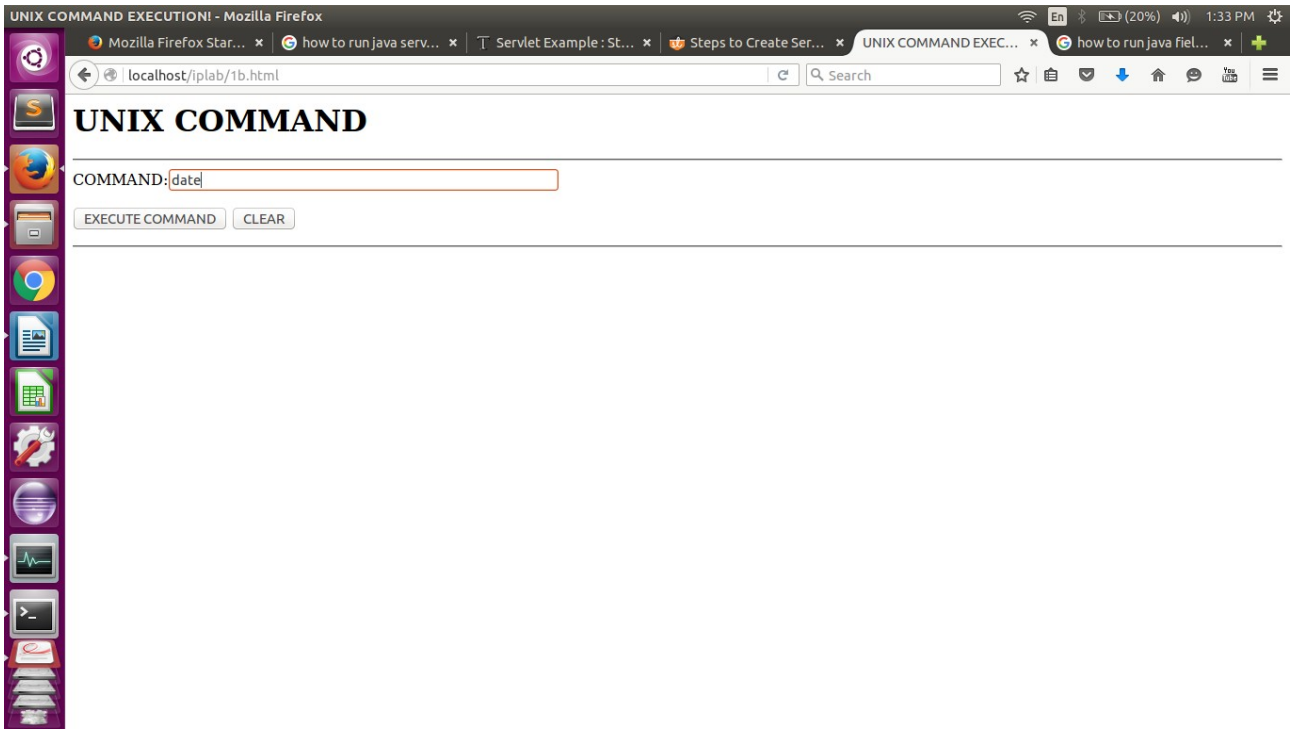
HTML FILE:

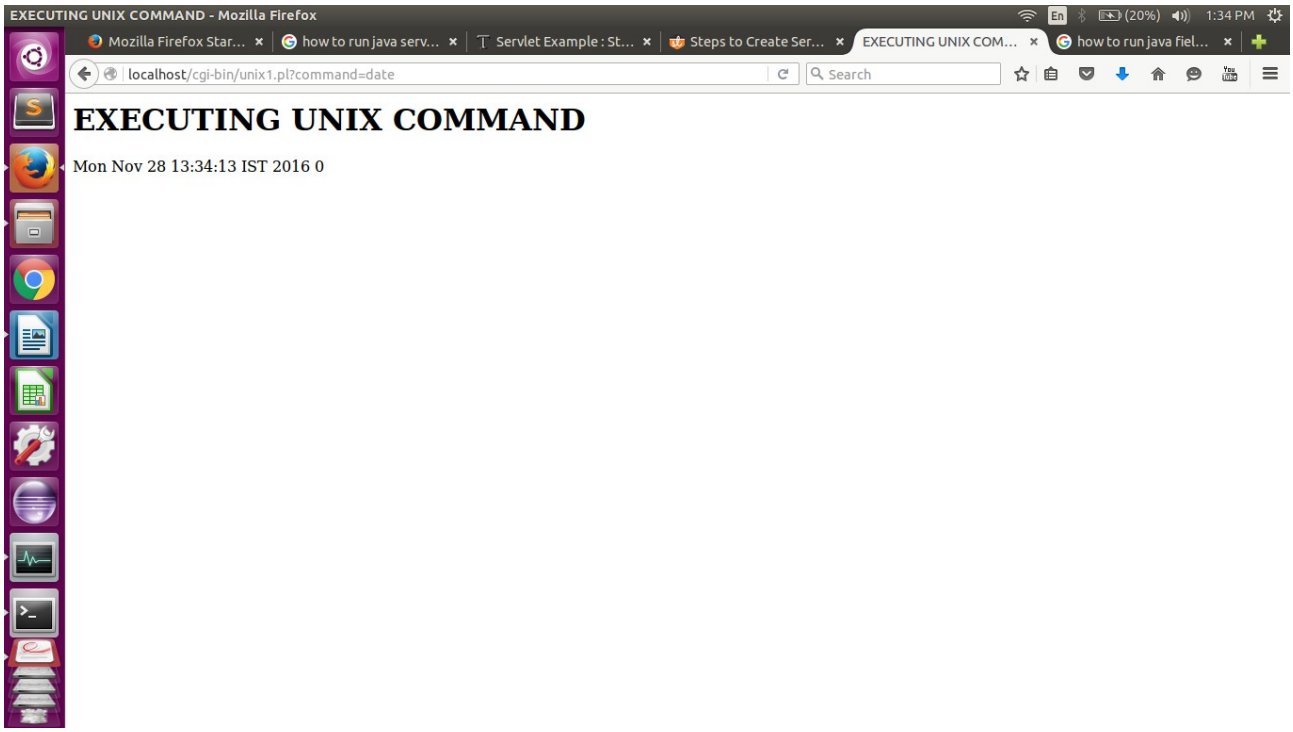
```
<html>
<head><title>UNIX COMMAND EXECUTION!</title></head>
<body>
<h1>UNIX COMMAND</h1>
<hr>
<form action="/cgi-bin/unix1.pl" method="get">
COMMAND:<input type="text" name="command" size=40>
<p>
<input type="submit" value="EXECUTE COMMAND">
<input type="reset" value="CLEAR">
</form>
<hr></body></html>
```

PERL FILE:

```
#!/usr/bin/perl
print "content-type: text/html", "\n\n";
print "<HTML>", "\n";
print "<HEAD><TITLE>EXECUTING UNIX COMMAND</TITLE></HEAD>", "\n";
print "<BODY><H1>EXECUTING UNIX COMMAND</H1>", "\n";
$query_string=$ENV{'QUERY_STRING'};
($field_name,$command)=split(/=/,$query_string);
$com=system($command);
if($com==-1)
{
print "command not found! error";
}
else
{
print $com;
}
print "</body></html>";
exit(0);
```

OUTPUT:


UNIX COMMAND EXECUTION! - Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
UNIX COMMAND EXEC...
how to run java fiel...
localhost/iplab/1b.html
Search
UNIX COMMAND
COMMAND: date
EXECUTE COMMAND
CLEAR


EXECUTING UNIX COMMAND - Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
EXECUTING UNIX COM...
how to run java fiel...
localhost/cgi-bin/unix1.pl?command=date
Search
EXECUTING UNIX COMMAND
Mon Nov 28 13:34:13 IST 2016 0

2 A. PROGARM TO ACCEPT THE USER NAME AND DISPLAY A GREETING MESSAGE.

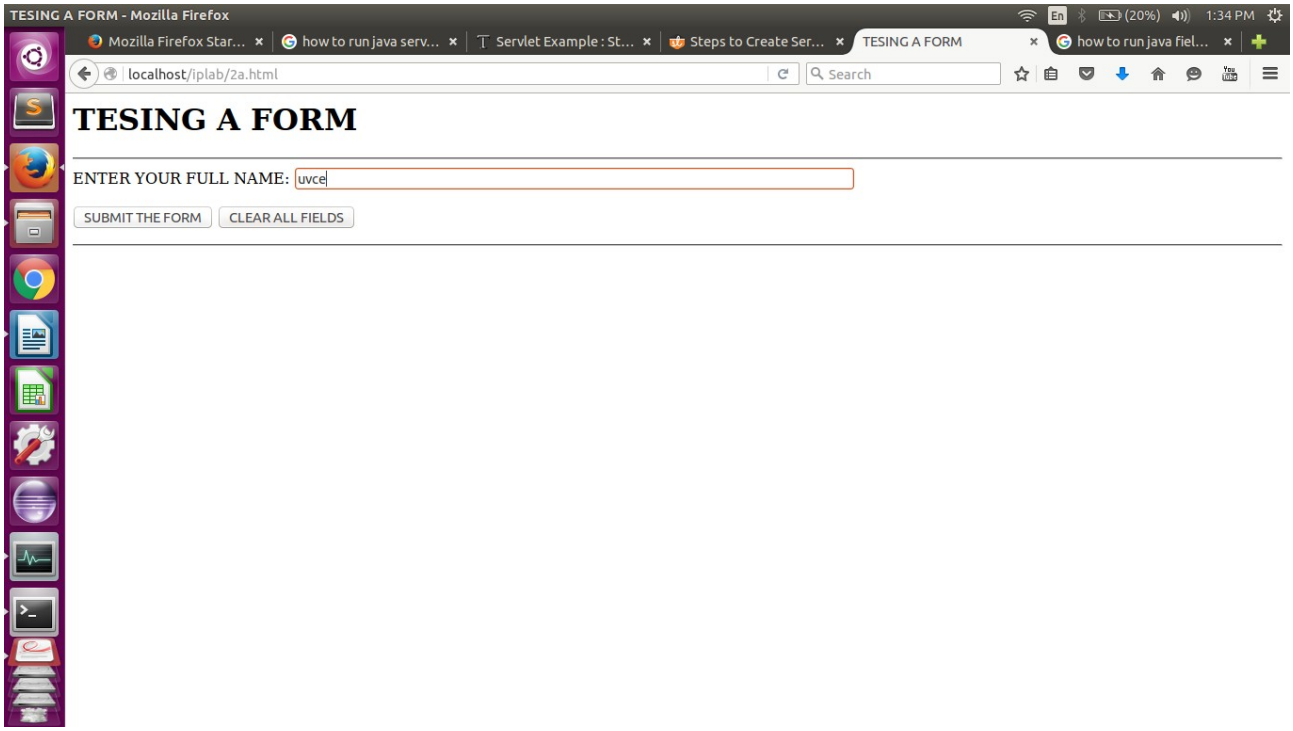
HTML FILE:

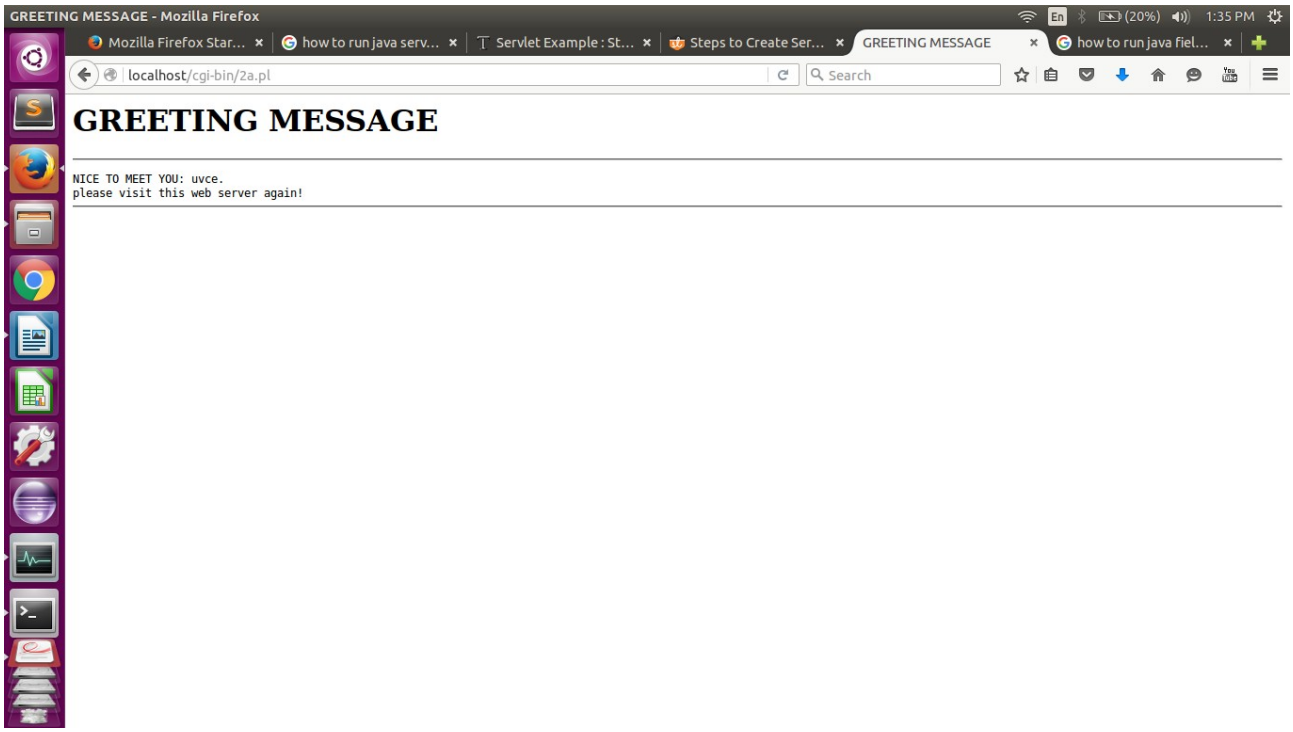
```
<HTML>
<HEAD><TITLE>TESING A FORM</TITLE></HEAD>
<BODY>
<H1>TESING A FORM</H1>
<HR>
<FORM ACTION="/cgi-bin/2a.pl" METHOD="post">
ENTER YOUR FULL NAME:
<INPUT TYPE="TEXT" NAME="user" SIZE=60><BR>
<P>
<INPUT TYPE="SUBMIT" VALUE="SUBMIT THE FORM">
<INPUT TYPE="RESET" VALUE="CLEAR ALL FIELDS">
</FORM><HR>
</BODY></HTML>
```

PERL SCRIPT:

```
#!/usr/bin/perl
use CGI;
$c = CGI->new();
$value = $c->param('user');
#$user=param('user');
print "content-type: text/html", "\n\n";
print "<HTML>", "\n";
print "<HEAD><TITLE>GREETING MESSAGE</TITLE></HEAD>", "\n";
print "<BODY><H1>GREETING MESSAGE</H1>", "\n";
print"<HR><PRE>";
print "NICE TO MEET YOU: ", $value, ".", "\n";
print "please visit this web server again!", "\n";
print "<HR></PRE>", "\n";
print "</BODY></HTML>", "\n";
exit(0);
```

OUTPUT:


TESING A FORM - Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
TESING A FORM
how to run java fiel...
localhost/iplab/2a.html
Search
TESING A FORM
ENTER YOUR FULL NAME: uvce
SUBMIT THE FORM
CLEAR ALL FIELDS


GREETING MESSAGE - Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
GREETING MESSAGE
how to run java fiel...
localhost/cgi-bin/2a.pl
Search
GREETING MESSAGE
NICE TO MEET YOU: uvce.
please visit this web server again!

2 B. PROGRAM TO KEEP TRACK OF THE NUMBER OF VISITORS, VBISITED THE WEB PAGE AND DISPLAY THE COUNTER WITH PROPER HEADINGS.

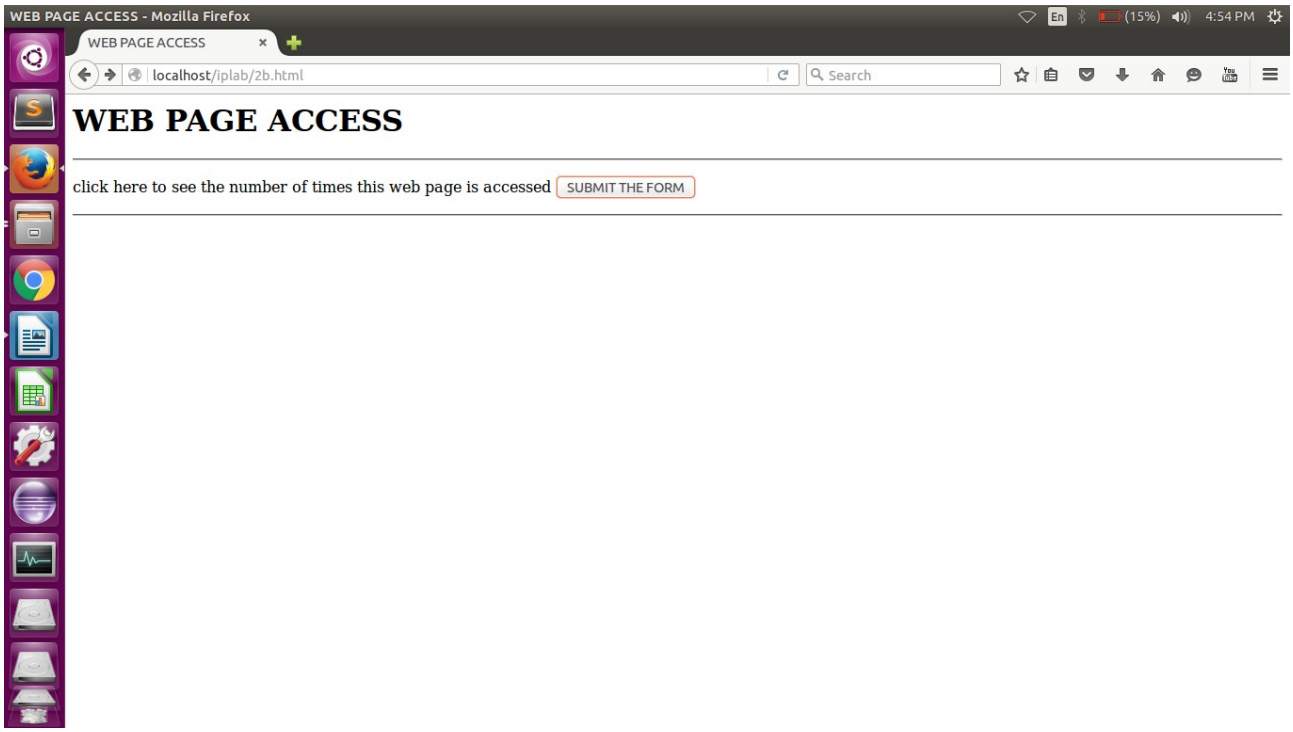
HTML FILE:

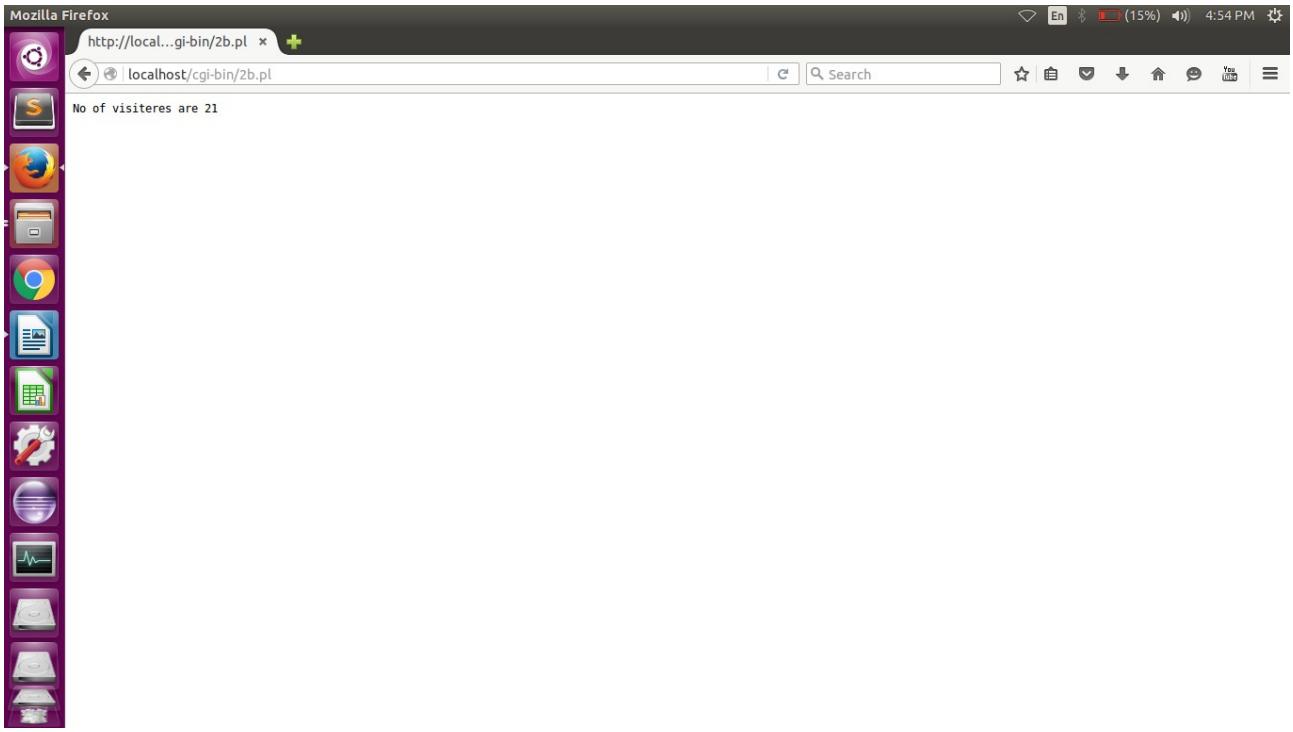
```
<HTML>
<HEAD><TITLE>WEB PAGE ACCESS</TITLE></HEAD>
<BODY>
<H1>WEB PAGE ACCESS</H1>
<HR>
<form action="/cgi-bin/2b.pl" method="post">
<P>
click here to see the number of times this web page is accessed
<INPUT TYPE="SUBMIT" VALUE="SUBMIT THE FORM">
</FORM><HR>
</BODY></HTML>
```

PERL SCRIPT:

```
#!/usr/bin/perl
print "content-type: text/plain", "\n\n";
$count_file="/usr/lib/cgi-bin/count.txt";

if(open(FILE,'<',$count_file))
{
        $no_accesses=<FILE>;
        $no_accesses++;
        print "No of visiteres are $no_accesses\n";
        close(FILE);
        if(open(FILE,">",$count_file))
        {
                print FILE $no_accesses;
                close(FILE);
        }
        else
        {
          print "could not print to file";
        }
}
else
{
 print "error in  opening the file";
}
exit(0);
```

OUTPUT:


WEB PAGE ACCESS - Mozilla Firefox
WEB PAGE ACCESS
localhost/iplab/2b.html
Search
WEB PAGE ACCESS
click here to see the number of times this web page is accessed
SUBMIT THE FORM


Mozilla Firefox
http://local...gi-bin/2b.pl
localhost/cgi-bin/2b.pl
Search
No of visiteres are 21

3. PROGRAM TO DISPLAY A GREETING BASED ON THE ACCESS TIME OF THE WEB SERVER. ALSO TO VERIFY WHETHER THE WEB MASTER IS CURRENTLY LOGGED IN OR NOT.

HTML FILE:

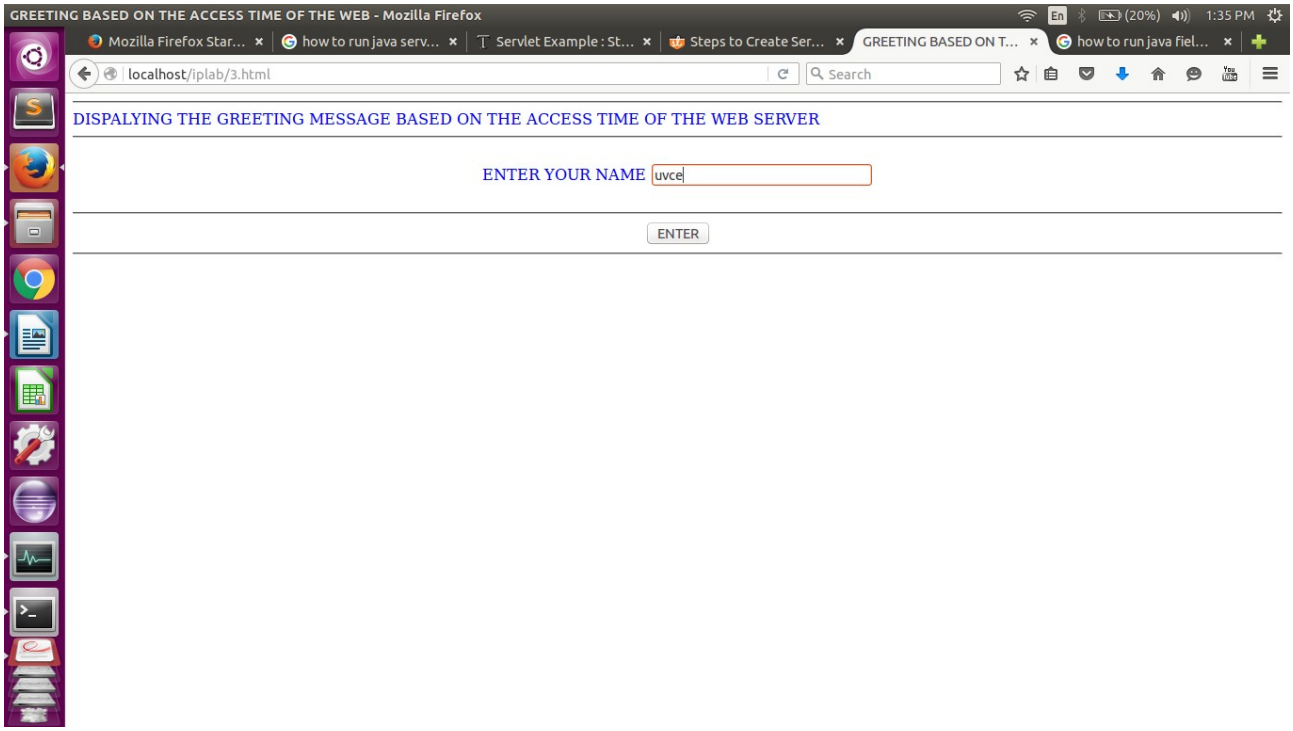
```
<html>
<head><title>GREETING BASED ON THE ACCESS TIME OF THE
WEB</title></head>
<body>
<form action="/cgi-bin/3.pl" method="post">
<hr>
<font color="BLUE">DISPALYING THE GREETING MESSAGE BASED ON THE
ACCESS TIME OF THE WEB SERVER
<hr>
<br>
<CENTER>ENTER YOUR NAME
<INPUT TYPE="TEXT" NAME="NAME" SIZE="20"></CENTER>
</font>
<BR><hr>
<CENTER><input type="submit" value="ENTER"></CENTER><hr>
</form></body>
</html>
```

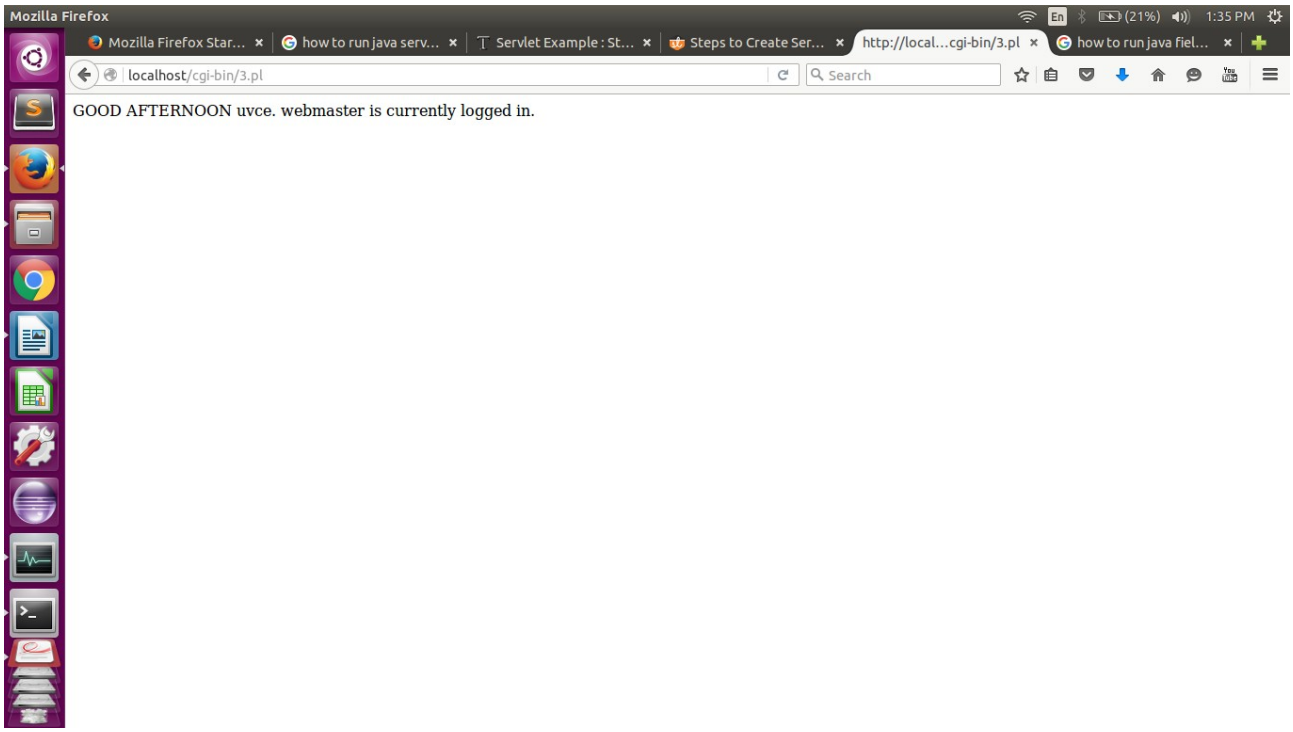
PERL SCRIPT:

```
#!/usr/bin/perl
use CGI;
$a=CGI->new();
$name=$a->param("NAME");


#&ReadParse(*simple_form);
#$name=$simple_form{'NAME'};

print "content-type: text/html", "\n\n";
$webmaster="root";
($seconds, $minutes, $hour)=localtime(time);
if ( ($hour>=23) || ($hour<=6) )
{
$greeting="wow, you are up late";
}
elsif ( ($hour>6) && ($hour<12) )
{
$greeting="GOOD MORNING";
}
```

```
elsif ( ($hour>=12) && ($hour<=18) )
{
$greeting="GOOD AFTERNOON";
}
else
{
$greeting="GOOD EVENING";
}
print $greeting , "\n";
print $name,".";
open(CHECK, "/usr/bin/w -h -s $webmaster |");
if(<CHECK>==/$webmaster/)
{
$in_out=" webmaster is currently logged in.";
}
else
{
$in_out=" webmaster is just stepped out.";
}
print "$in_out\n";
exit(0);
```

OUTPUT


GREETING BASED ON THE ACCESS TIME OF THE WEB - Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
GREETING BASED ON T...
how to run java fiel...
localhost/iplab/3.html
Search
DISPALYING THE GREETING MESSAGE BASED ON THE ACCESS TIME OF THE WEB SERVER
ENTER YOUR NAME
uvce
ENTER


Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
http://local...cgi-bin/3.pl
how to run java fiel...
localhost/cgi-bin/3.pl
Search
GOOD AFTERNOON uvce. webmaster is currently logged in.

4. PROGRAM TO DISPLAY A DIGITAL CLOCK WHICH DISPLAYS THE CURRENT TIME OF THE SERVER.

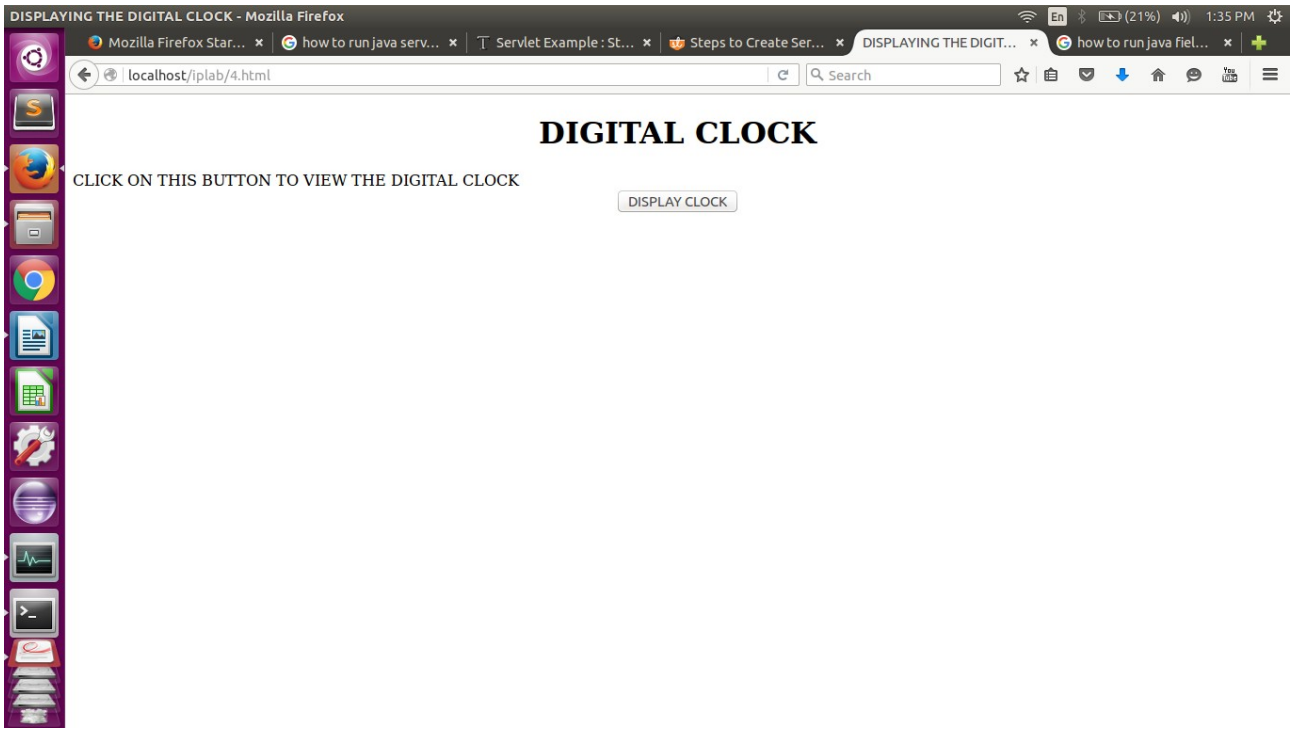
HTML FILE:

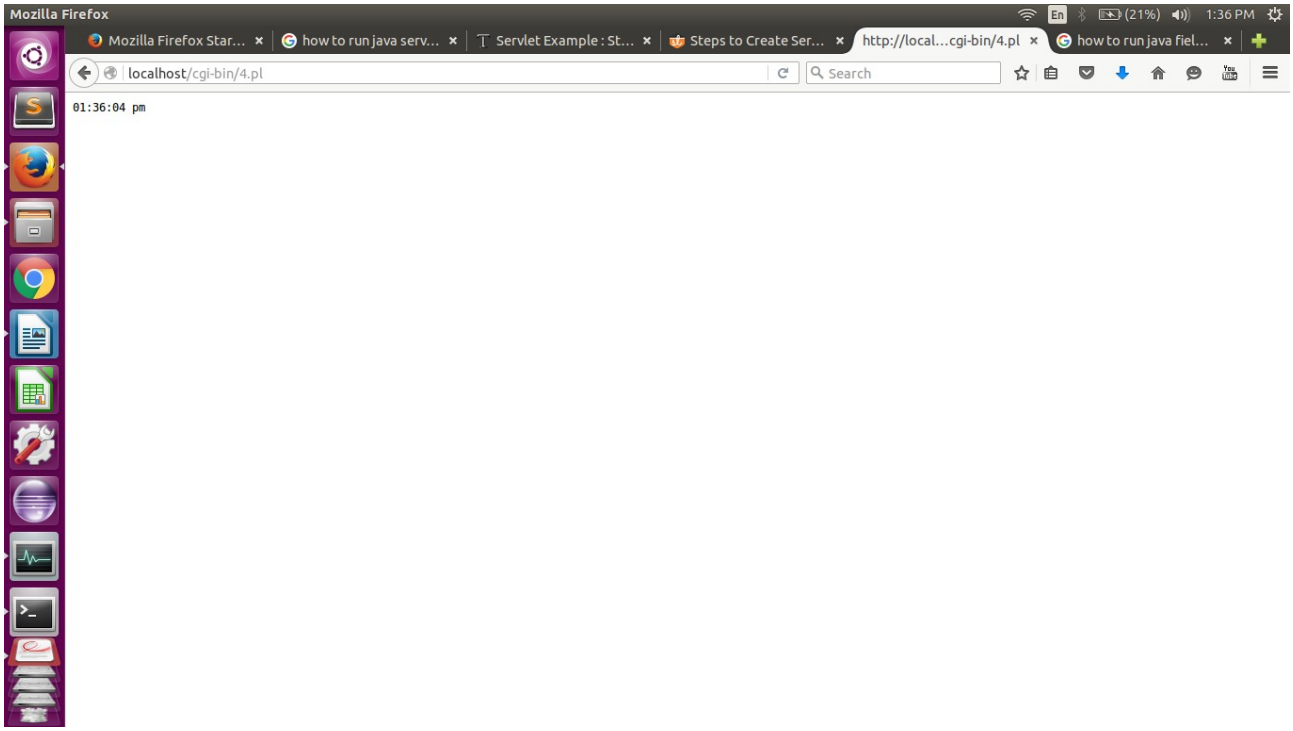
```
<html>
<head><title>DISPLAYING THE DIGITAL CLOCK</title></head>
<body>
<form action="/cgi-bin/4.pl" method="post">
<h1><center>DIGITAL CLOCK</center></h1>
CLICK ON THIS BUTTON TO VIEW THE DIGITAL CLOCK
<br>
<center><input type="submit" value="DISPLAY CLOCK"></center>
</form>
</body>
</html>
```

PERL SCRIPT:

```
#!/usr/bin/perl
print "content-type: text/plain", "\n\n";
$GS="/usr/bin/gs";
$|=1;
($seconds, $minutes, $hour)=localtime(time);
if($hour>12)
{
$hour-=12;
$ampm="pm";
}
else
{
$ampm="am";
}
if($hour==0)
{
$hour=12;
}
$time=sprintf("%02d:%02d:%02d %s", $hour, $minutes, $seconds, $ampm);
print $time;
exit(0);
```

OUTPUT:


DISPLAYING THE DIGITAL CLOCK - Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
DISPLAYING THE DIGIT...
how to run java fiel...
localhost/iplab/4.html
Search
DIGITAL CLOCK
CLICK ON THIS BUTTON TO VIEW THE DIGITAL CLOCK
DISPLAY CLOCK


Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
http://local...cgi-bin/4.pl
how to run java fiel...
localhost/cgi-bin/4.pl
Search
01:36:04 pm

5. PROGRAM TO DISPLAY THE CURRENT CONTENTS O9F THE TABLE IN A DATABASE.

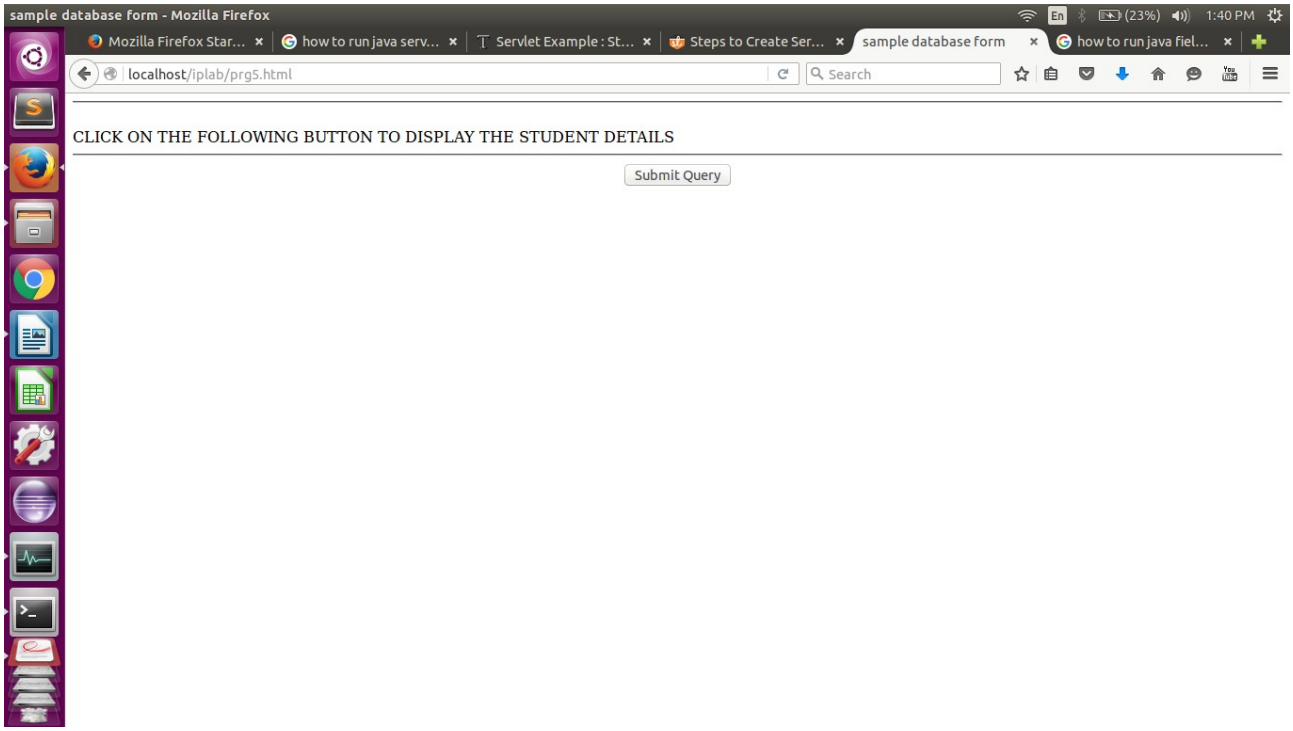
HTML FILE:

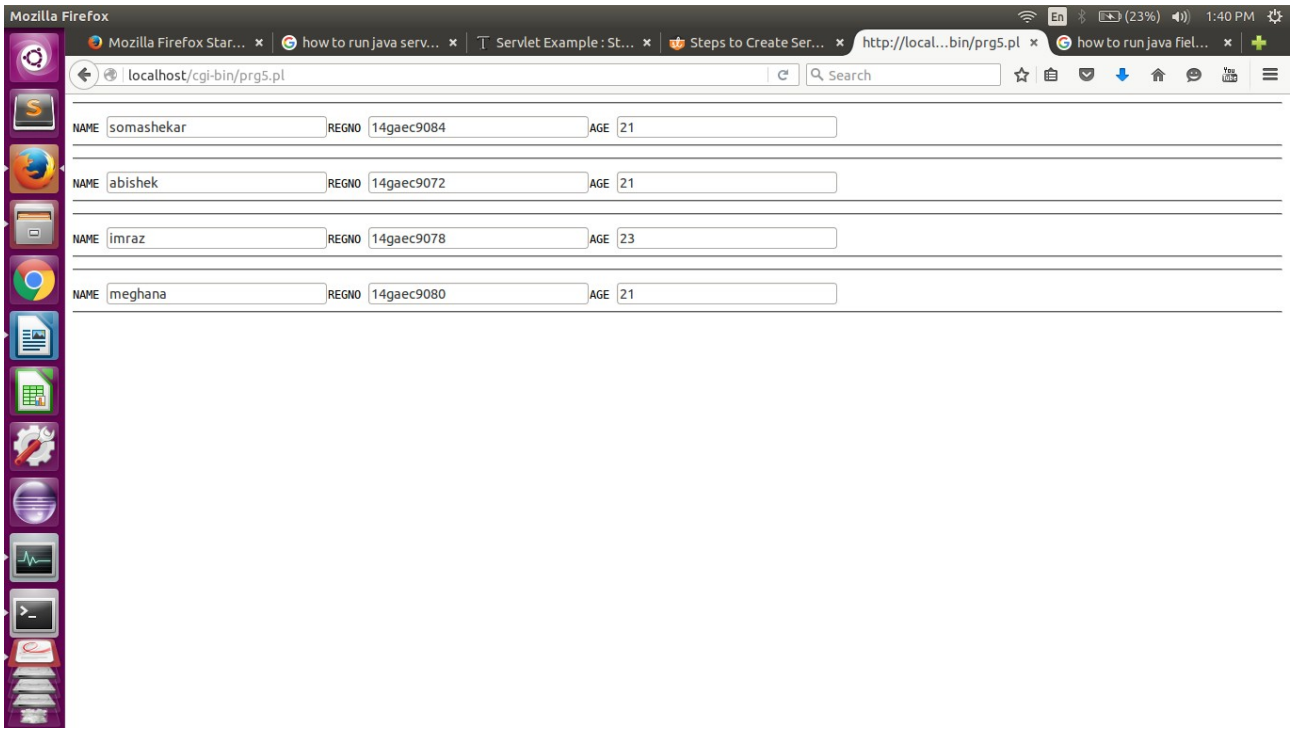
```
<html>
<head><title>sample database form</title></head>
<body>
<form action="/cgi-bin/prg5.pl" method="post">
<HR><BR>
CLICK ON THE FOLLOWING BUTTON TO DISPLAY THE STUDENT DETAILS
<HR>
<center><input type=submit name="student details"></center>
</form></body>
</html>
```

PERL SCRIPT:

```
#!/usr/bin/perl
use DBI;
print "content-type: text/html", "\n\n";
#print "hellow world";
$db="iplab";
$dbh=DBI->connect("dbi:mysql:database=$db","root","9844275633");
$r=$dbh->prepare("select * from stud");
$r->execute();
while(($a,$b,$c)=$r->fetchrow_array())
{
print "<HTML>", "\n";
print "<BODY>", "\n";
print"<HR><PRE>";
print "NAME <input type=\"text\" name=\"g1\" value= $a>";
print "REGNO <input type=\"text\" name=\"g2\" value= $b>";
print "AGE <input type=\"text\" name=\"g2\" value= $c>";
print "<HR></PRE>", "\n";
print "</BODY></HTML>", "\n";
}
$r->finish();
exit(0);
```

OUTPUT:


sample database form - Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
sample database form
how to run java fiel...
localhost/iplab/prg5.html
Search
CLICK ON THE FOLLOWING BUTTON TO DISPLAY THE STUDENT DETAILS
Submit Query


Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
http://local...bin/prg5.pl
how to run java fiel...
localhost/cgi-bin/prg5.pl
Search
NAME somashekar REGNO 14gaec9084 AGE 21
NAME abishek REGNO 14gaec9072 AGE 21
NAME imraz REGNO 14gaec9078 AGE 23
NAME meghana REGNO 14gaec9080 AGE 21

6. PROGRAM TO INSERT NEW NAME AND AGE INFORMATION ENTERED BY THE USER INTO THE DATABASE.

HTML FILE:

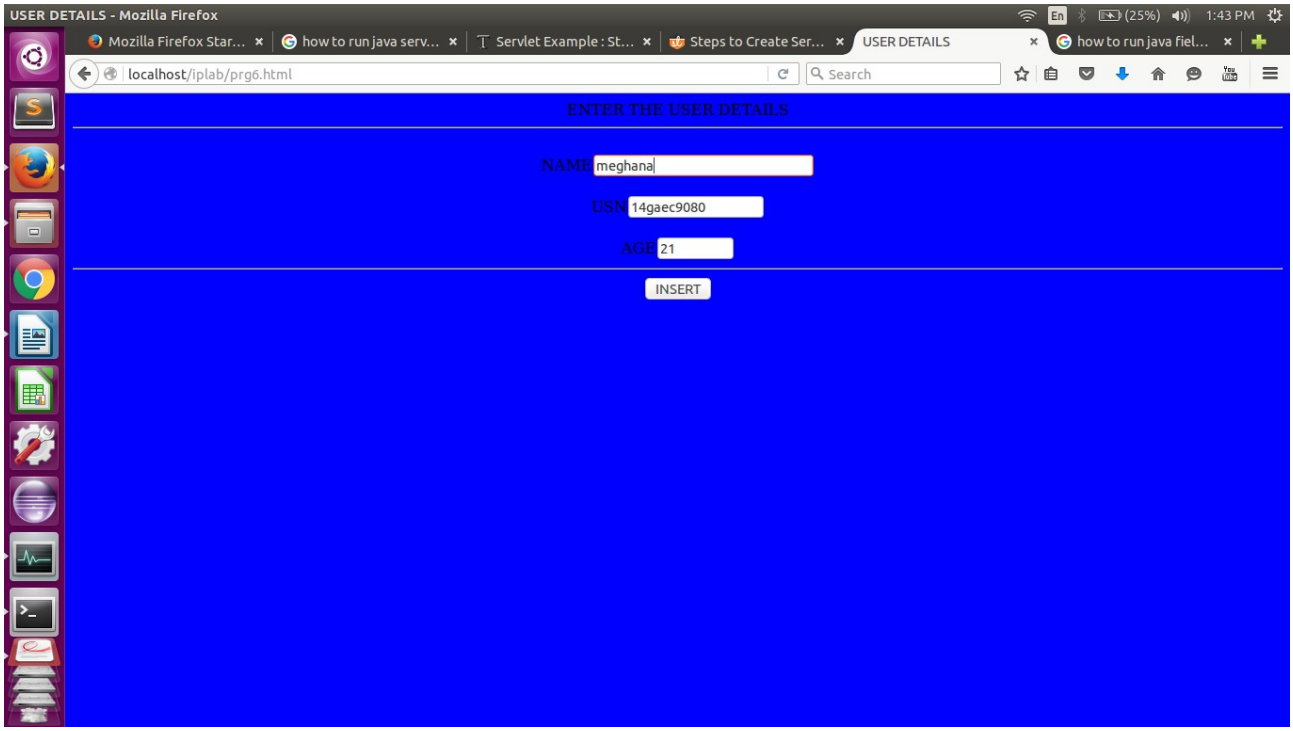
```
<html>
<head><title>USER DETAILS</title></head>
<body bgcolor="blue">
<form action="/cgi-bin/prg6.pl" method="post">
<CENTER>ENTER THE USER DETAILS</CENTER>
<HR>
<BR>
<CENTER>NAME<INPUT TYPE="TEXT" NAME="UNAME"
SIZE="20"></CENTER>
<BR>
<CENTER>USN<INPUT TYPE="TEXT" NAME="USN" SIZE="10"></CENTER>
<BR>
<CENTER>AGE<INPUT TYPE="TEXT" NAME="AGE" SIZE="3"></CENTER>
<HR>
<CENTER><INPUT TYPE="SUBMIT" VALUE="INSERT"></CENTER>
</FORM></BODY>
</HTML>
```

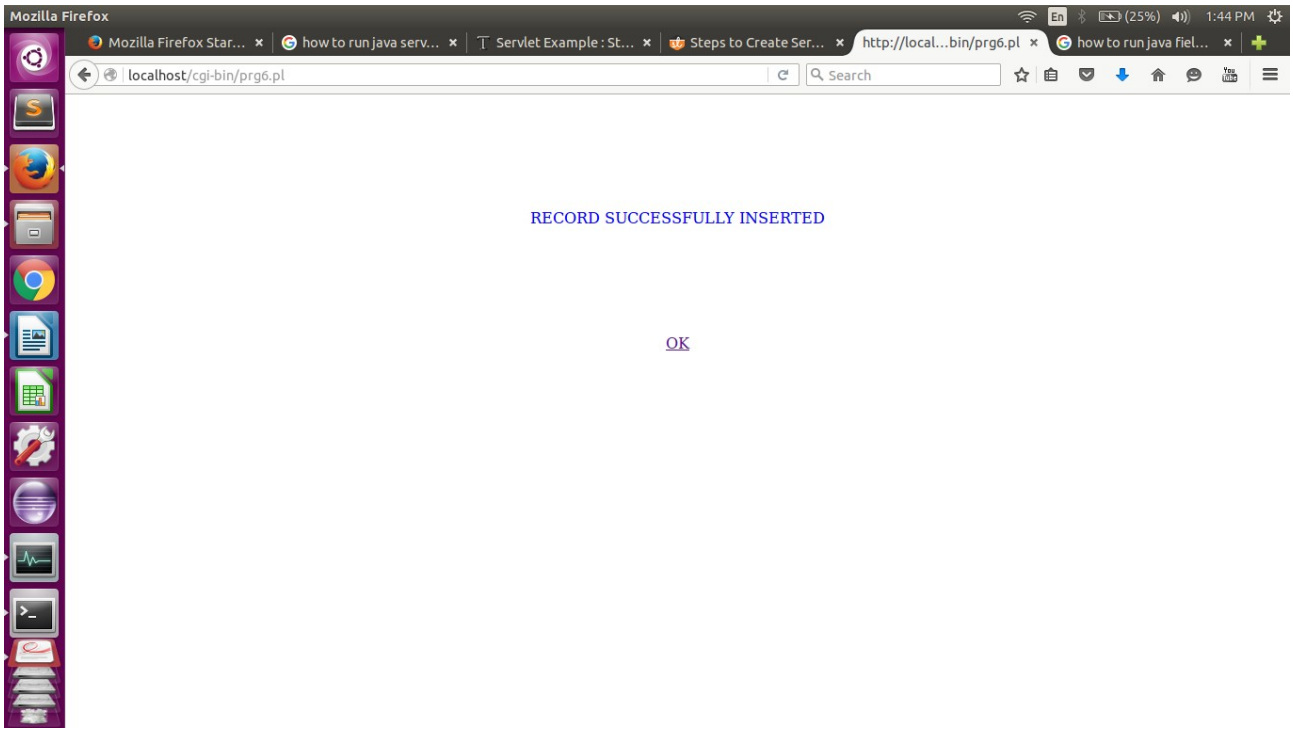
PERL SCRIPT:

```
#!/usr/bin/perl
use DBI;
use CGI;
$c=CGI->new();

print "content-type: text/html", "\n\n";
$db="iplab";
$dbh=DBI->connect("dbi:mysql:database=$db","root","9844275633");

$x=$c->param('UNAME');
$y=$c->param('USN');
$a=$c->param('AGE');

$r=$dbh->prepare("insert into stud values('$x','$y',$a)");
$r->execute();
$r->finish();
print "<html><body>";
print "<center>";
print "<font color=BLUE>";
print "<br><br><br><br><br><br>";
print "RECORD SUCCESSFULLY INSERTED";
print "<br><br><br><br><br><br><br>";
```

```
print "<a href=http://localhost/iplab/prg6.html>OK</a>";
print "</font>";
print "</center>";
print "</body></html>";
exit(0);
```

OUTPUT:





7) PROGRAM TO QUERY THE DATABASE AND TO DISPLAY THE RESULT ON A WEB PAGE

HTML FILE:

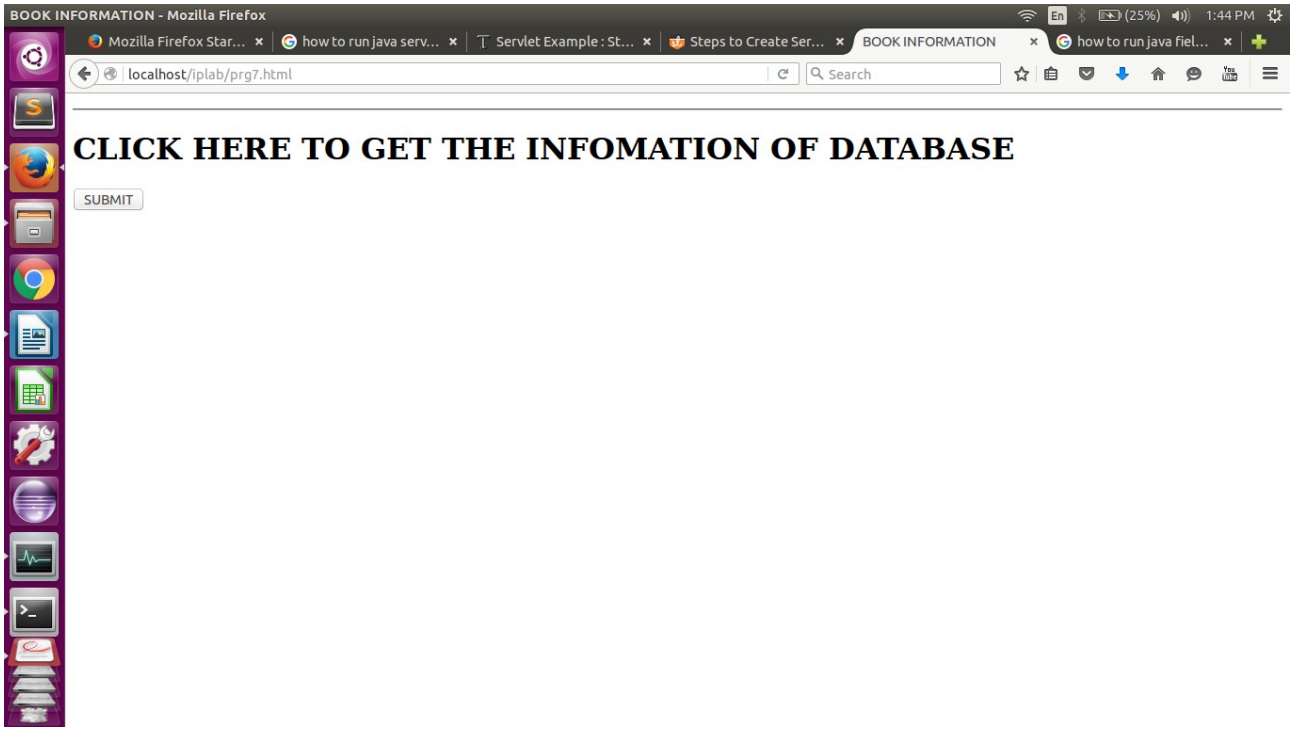
```
<html>
<head><title>BOOK INFORMATION</title></head>
<body>
<form action="prg7.php" method="post">
<p>
<hr>
<h1>CLICK HERE TO GET THE INFOMATION OF DATABASE</h1>
<input type="submit" value="SUBMIT">
</form>
</body>
</html>
```

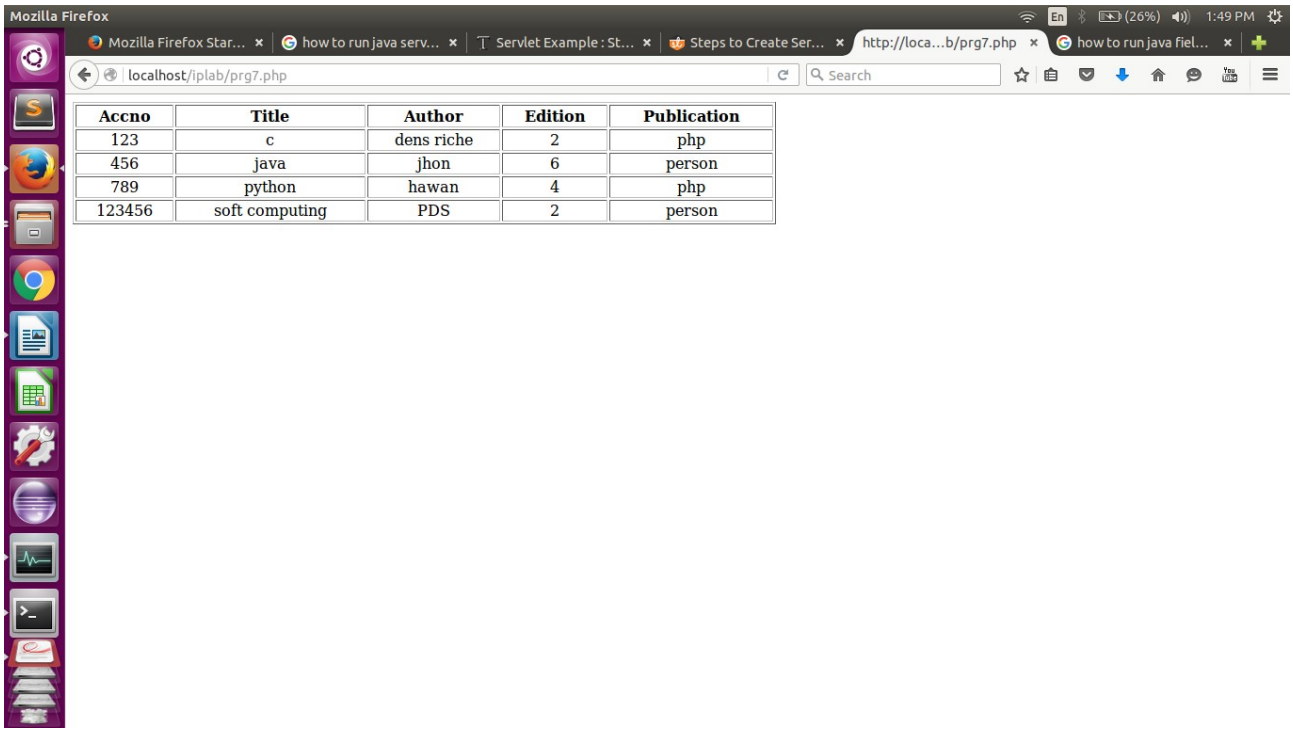
PHP SCRIPT:

```
<?php
$dbcnx=mysql_connect("localhost","root","9844275633");
if(!$dbcnx)
{
echo("Error connecting to the database");
exit();
}
if(!mysql_select_db("iplab"))
{
echo("cannot find database iplab");
exit();
}
?>
<!--<h1>THESE ARE THE BOOK DETAILS</h1>
ACCNO    TITLE    AUTHOR &
nbsp;  EDITION;    PUBLICATION  
  <br>-->


<table border='1' width='747px'>
<tr>
  <th>Accno</th>
  <th>Title</th>
  <th>Author</th>
  <th>Edition</th>
  <th>Publication</th>
</tr>
<?php
```

```
$result=mysql_query("SELECT acc_no,title,author,edition,publication FROM book");
if(!$result)
{
echo("error performing query".mysql_error());
exit();
}


while($row=mysql_fetch_array($result))
{
echo"<tr align='center'>";
echo"<td>".$row["acc_no"]."</td>";

echo"<td>".$row["title"]."</td>";

echo"<td>".$row["author"]."</td>";

echo"<td>".$row["edition"]."</td>";

echo"<td>".$row["publication"]."</td>";

echo"</tr>";
}
?>
</table>
```

OUTPUT:





Accno	Title	Author	Edition	Publication
123	c	dens riche	2	php
456	java	jhon	6	person
789	python	hawan	4	php
123456	soft computing	PDS	2	person

8) PROGRAM TO ACCEPT BOOK INFORMATION VIZ ACCESSION NUMBER,TITLE,AUTHOR,EDITION AND PUBLICATION FROM A WEB PAGE AND TO STORE IN A DATABASE

HTML FILE:

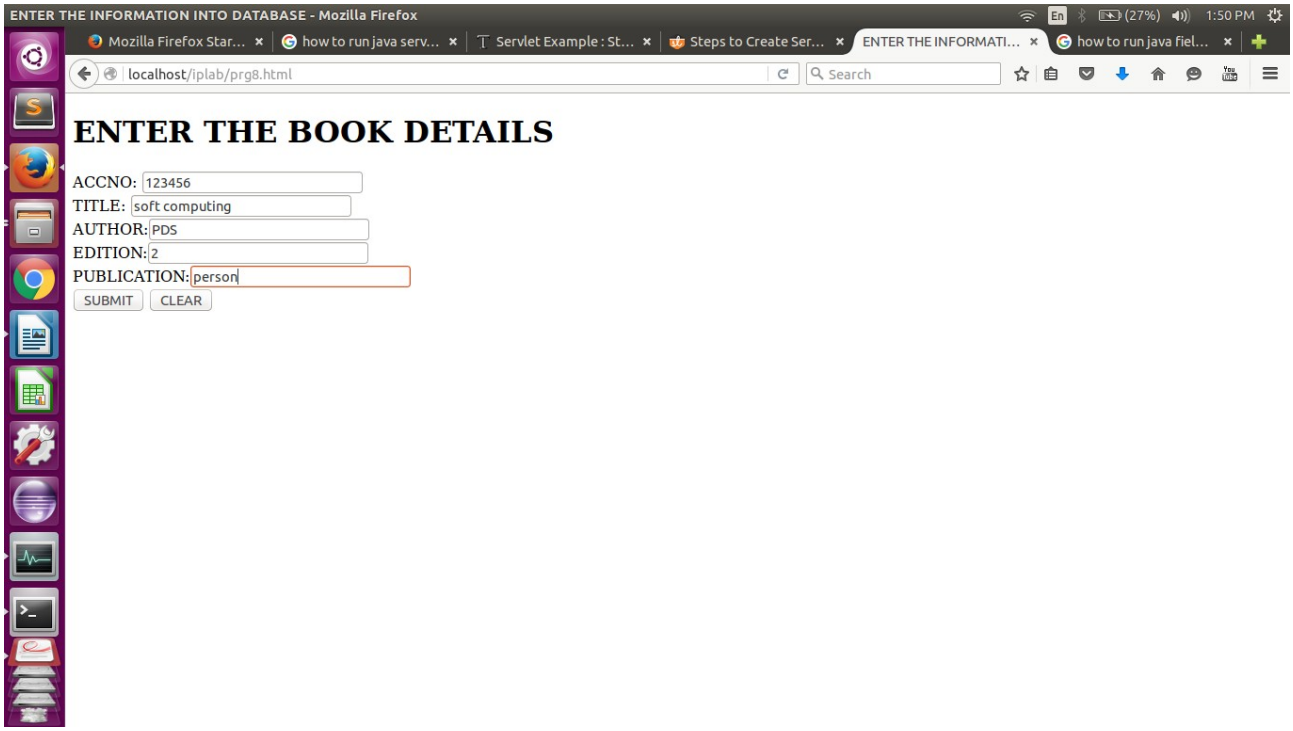
```
<html>
<head><title>ENTER THE INFORMATION INTO DATABASE</title></head>
<body>
<form action="prg8.php" method="post">
<h1>ENTER THE BOOK DETAILS</h1>
ACCNO: <input type="text"name="acc_no"> <br>
TITLE: <input type="text"name="title"> <br>
AUTHOR:<input type="text"name="author"> <br>
EDITION:<input type="text"name="edition"> <br>
PUBLICATION:<input type="text"name="publication"> <br>
<input type="submit"value="SUBMIT">
<input type="reset"value="CLEAR">
</body>
</html>
```

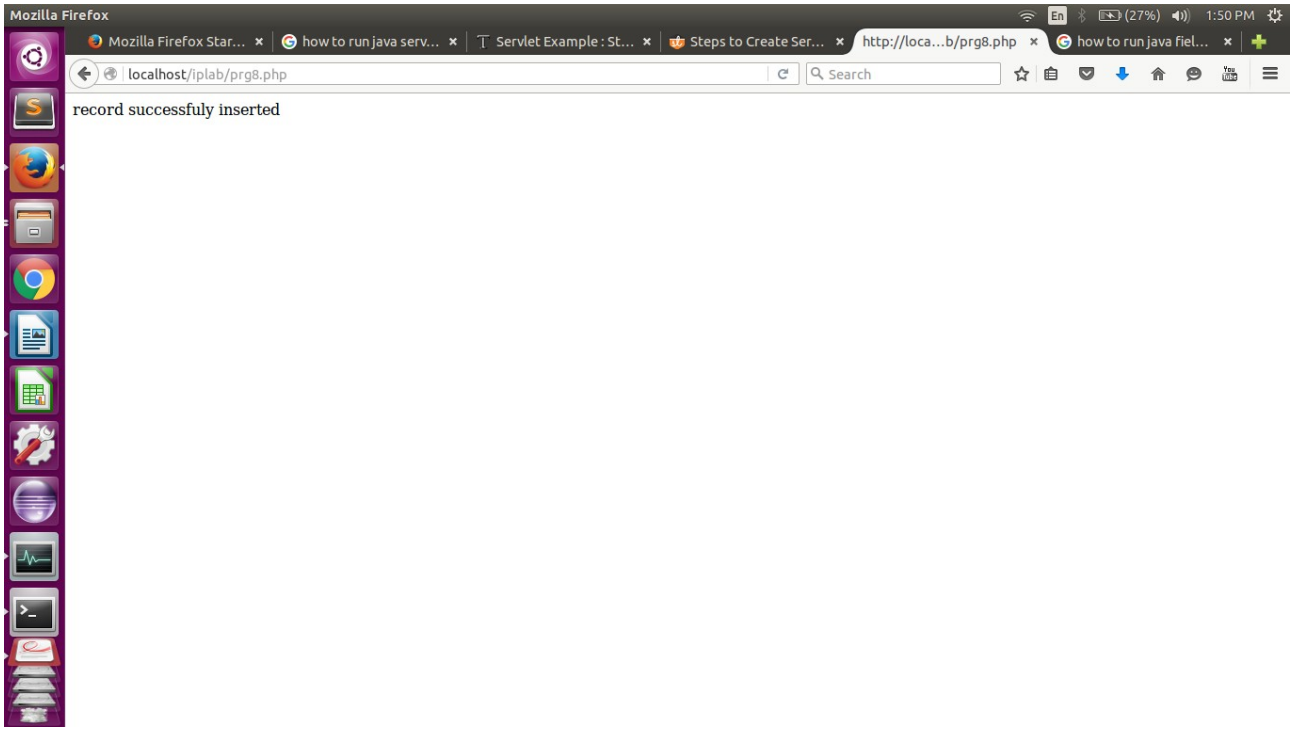
PHP SCRIPT:

```
<?php
$dbcnx=mysql_connect("localhost","root","9844275633");
if(!$dbcnx){
echo ("error connecting dbase");
exit();
}
if(!@mysql_select_db("iplab"))
{
echo("error in selecting database iplab");
exit();
}
$acc_no=$_POST["acc_no"];
$acc_no=addslashes($acc_no);
$title=$_POST["title"];
$title=addslashes($title);
$author=$_POST["author"];
$author=addslashes($author);
$edition=$_POST["edition"];
$edition=addslashes($edition);
$publication=$_POST["publication"];
$publication=addslashes($publication);
if($acc_no=="")
{
```

```
echo("missing acc");
$charge=1;
}
if($title=="")
{
echo("missing title");
$charge=1;
}
if($author=="")
{
echo("missing author");
$charge=1;
}
if($edition=="")
{
echo("missing edition");
$charge=1;
}
if($publication=="")
{
echo("missing publication");
$charge=1;
}

if($charge!=1)
{
$sql="INSERT INTO book
values('$acc_no','$title','$author',$edition,'$publication')";
}

if(mysql_query($sql))
{
echo("record successfuly inserted");
}
else
{
echo("record ins failed");
}
?>
```

OUTPUT:


ENTER THE INFORMATION INTO DATABASE - Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
ENTER THE INFORMATI...
how to run java fiel...
localhost/iplab/prg8.html
Search
ENTER THE BOOK DETAILS
ACCNO: 123456
TITLE: soft computing
AUTHOR: PDS
EDITION: 2
PUBLICATION: person
SUBMIT
CLEAR


Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
http://loca...b/prg8.php
how to run java fiel...
localhost/iplab/prg8.php
Search
record successfuly inserted

9) PROGRAM TO SEARCH A BOOK FOR A TITLE GIVEN BY THE USER ON A WEB PAGE AND DISPLAY THE SEARCH RESULTS WITH PROPER HEADINGS

HTML FILE:

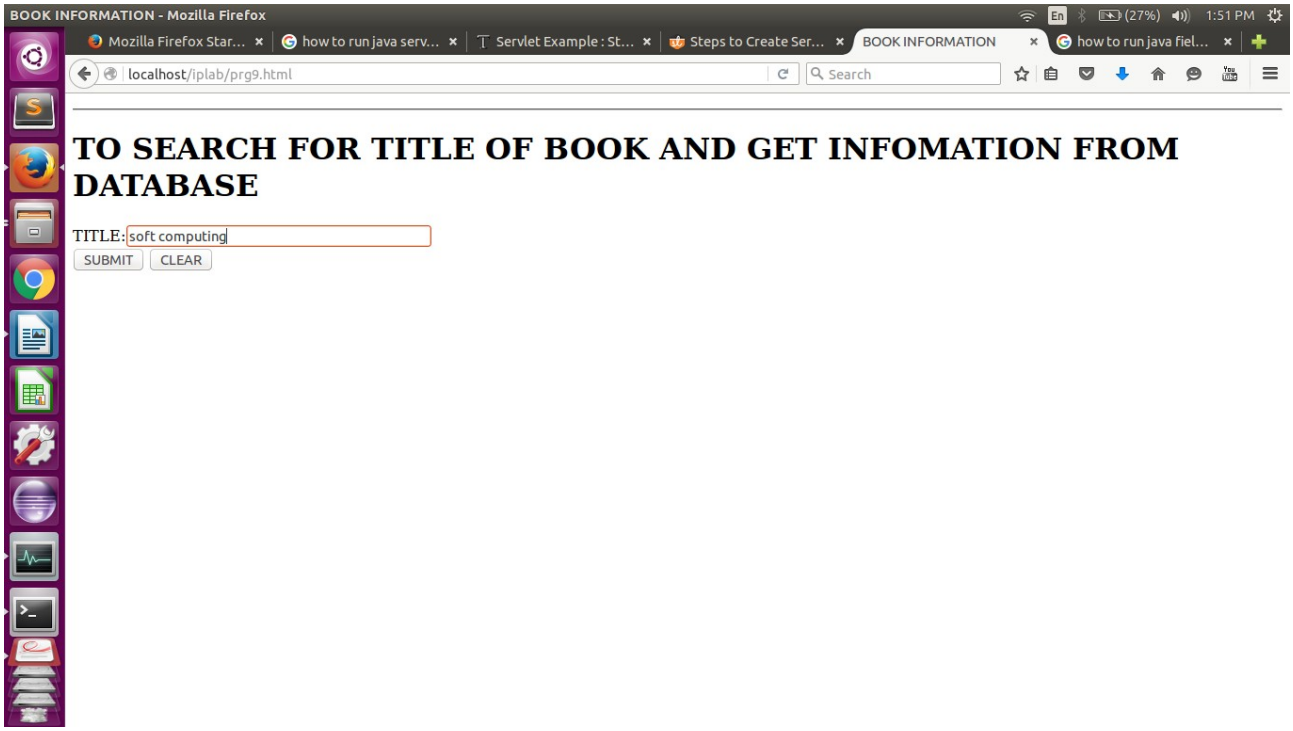
```
<html>
<head><title>BOOK INFORMATION</title></head>
<body>
<form action="prg9.php" method="post">
<p><hr>
<h1>TO SEARCH FOR TITLE OF BOOK AND GET INFOMATION FROM DATABASE</h1>
TITLE:<input type="text"name="title"size=30>
<br>
<input type="submit"value="SUBMIT">
<input type="reset"value="CLEAR">
</form></body>
</html>
```

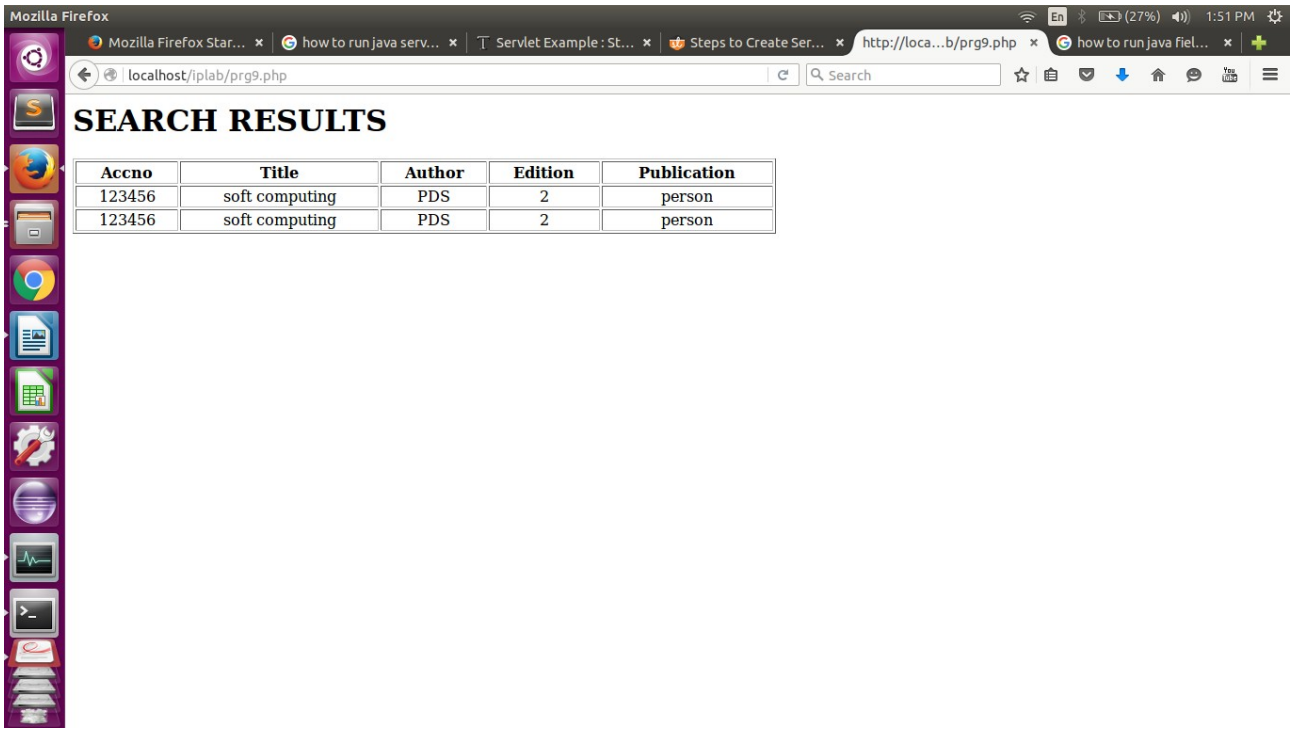
PHP SCRIPT:

```
<?php
$dbcnx=mysql_connect("localhost","root","9844275633");
if(!$dbcnx)
{echo("error connecting to the database");
exit();
}

if(!mysql_select_db("iplab"))
{
echo("error selecting database iplab");
exit();
}

$title=$_POST["title"];
$title=addslashes($title);
if($title=="")
{
echo("empty title");
$check=1;
}
if($check!=1)
{
$result=mysql_query("select acc_no,title,author,edition,publication
from book WHERE title like '%$title%'");
}
if(!$result)
```

```
{
echo("error executing query");
exit();
}
?>
<h1>SEARCH RESULTS</h1>
<table border='1' width='747px'>
<tr>
  <th>Accno</th>
  <th>Title</th>
  <th>Author</th>
  <th>Edition</th>
  <th>Publication</th>
</tr>

<?php
while($row=mysql_fetch_array($result))
{
echo"<tr align='center'>";
echo"<td>".$row["acc_no"]."</td>";

echo"<td>".$row["title"]."</td>";

echo"<td>".$row["author"]."</td>";

echo"<td>".$row["edition"]."</td>";

echo"<td>".$row["publication"]."</td>";
echo"</tr>";
}
?>
</table>
```

OUTPUT:


BOOK INFORMATION - Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
BOOK INFORMATION
how to run java fiel...
localhost/iplab/prg9.html
Search
TO SEARCH FOR TITLE OF BOOK AND GET INFOMATION FROM DATABASE
TITLE:soft computing
SUBMIT
CLEAR

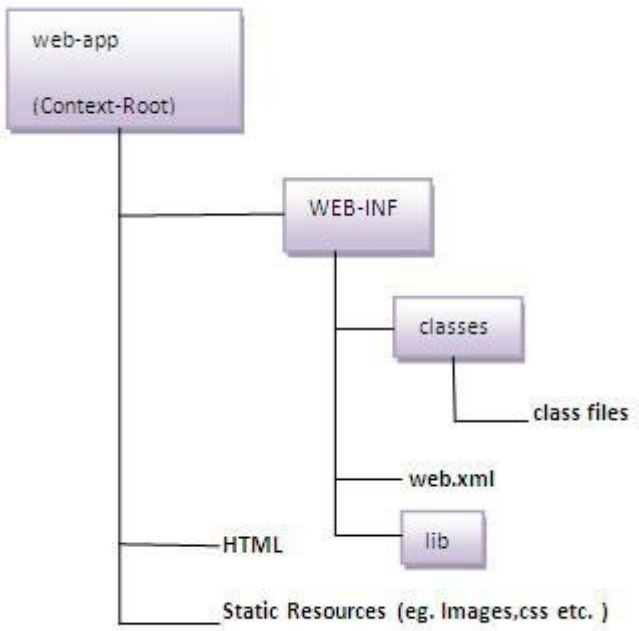

Mozilla Firefox
Mozilla Firefox Star...
how to run java serv...
Servlet Example : St...
Steps to Create Ser...
http://loca...b/prg9.php
how to run java fiel...
localhost/iplab/prg9.php
Search
SEARCH RESULTS
Accno
Title
Author
Edition
Publication
123456
soft computing
PDS
2
person
123456
soft computing
PDS
2
person

Six Steps to Running Your First Servlet:

After installing Tomcat Server on your machine follow the below mentioned steps :

1. Create directory structure for your application.
2. Create a Servlet
3. Compile the Servlet
4. Create Deployement Descriptor for your application
5. Start the server and run the programs

1) Create a directory structures



- As you can see that the servlet class file must be in the classes folder. The web.xml file must be under the WEB-INF folder.

2) Create a Servlet

Write code in a notepad file and save it as **MyServlet.java** anywhere on your PC. Compile it(explained in next step) from there and paste the class file into `WEB-INF/classes/` directory that you have to create inside **Tomcat/webapps** directory.

3) Compile the Servlet

To compile a Servlet a JAR file is required. Different servers require different JAR files. In Apache Tomcat server `servlet-api.jar` file is required to compile a servlet class.

Ex: javac -cp /usr/share/tomcat7/lib/servlet-api.jar Example.java

4) Create Deployment Descriptor

Deployment Descriptor(DD) is an XML document that is used by Web Container to run Servlets and JSP pages.

- Mapping URL to Servlet class.
- Initializing parameters.

<web-app> represents the whole application.
<servlet> is sub element of <web-app> and represents the servlet.
<servlet-name> is sub element of <servlet> represents the name of the servlet.
<servlet-class> is sub element of <servlet> represents the class of the servlet.
<servlet-mapping> is sub element of <web-app>. It is used to map the servlet.
<url-pattern> is sub element of <servlet-mapping>. This pattern is used at client side to invoke the servlet.

5) Call Your Servlet from a Web Browser

You are ready to call your servlet from a web browser. By default, Tomcat runs on port 8080 in webapps.

http://localhost:8080/class-file-name

10A) PROGRAM TO ACCEPT USER NAME AND DISPLAY A GREETING MESSAGE.

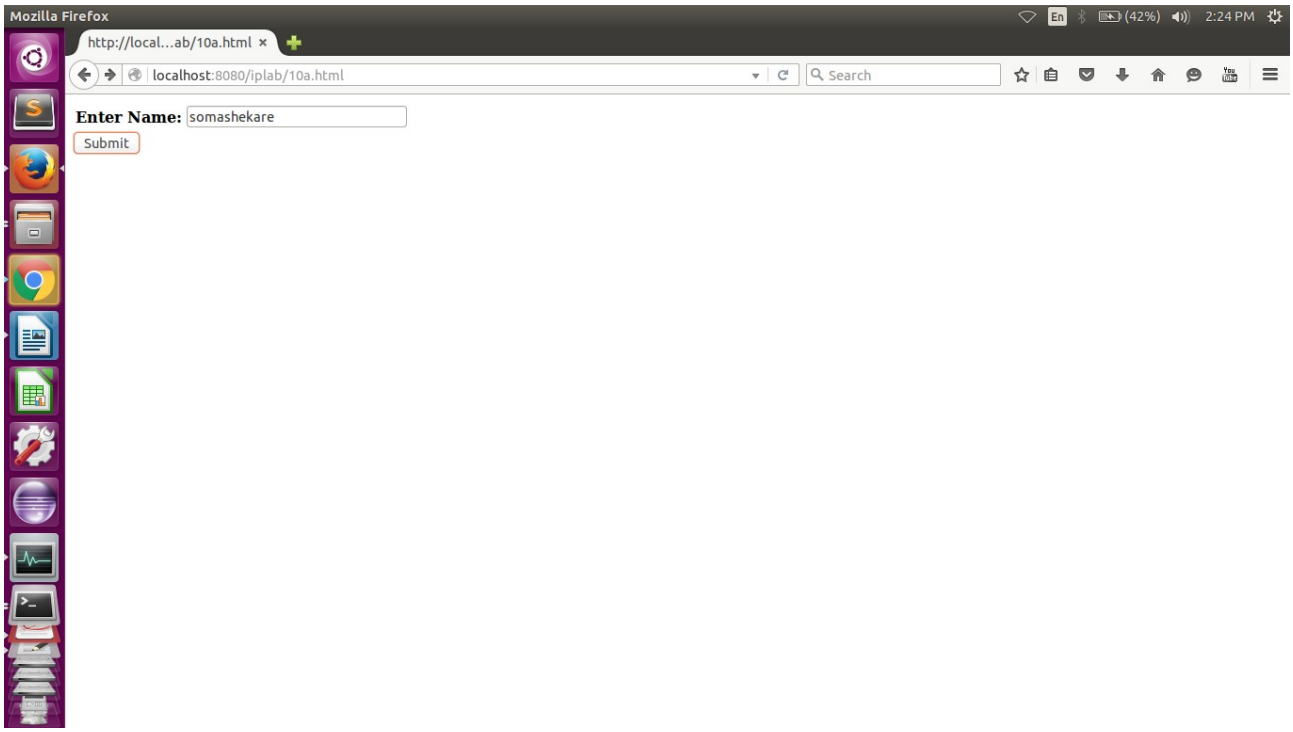
HTML FILE:

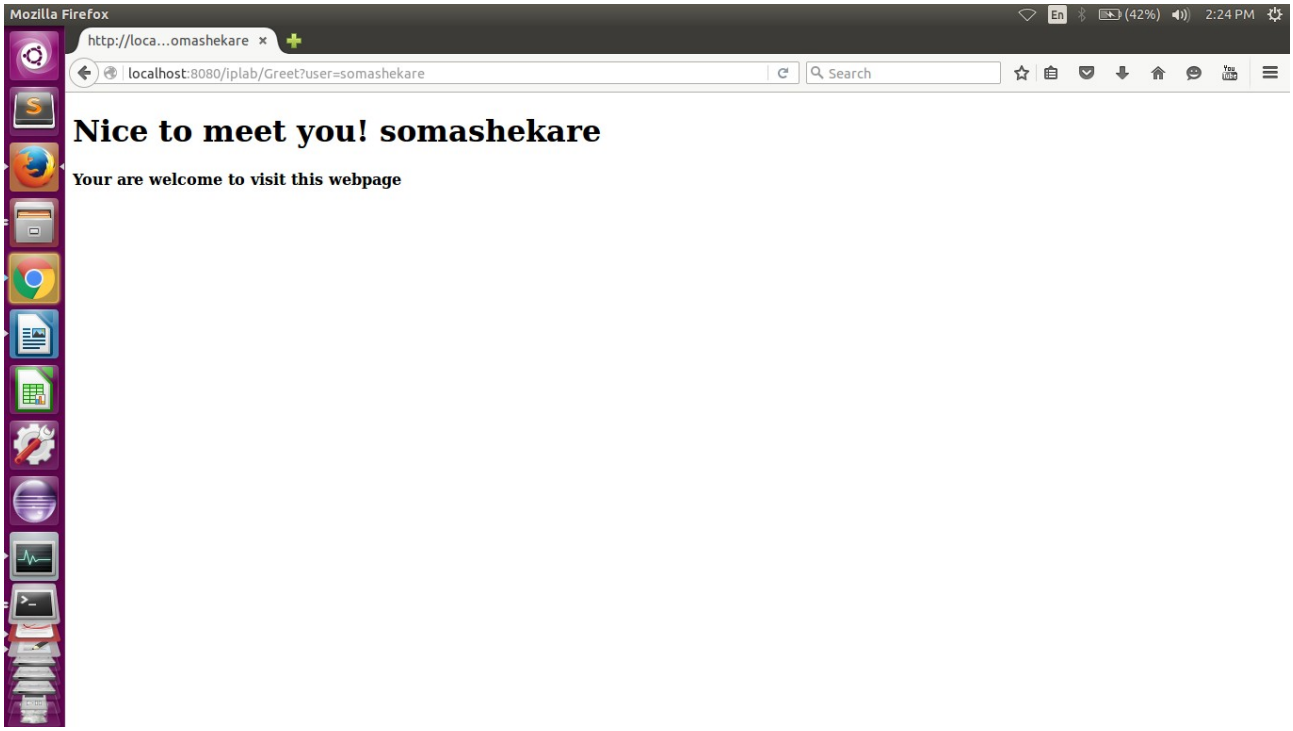
```
<html>
<body>
<form action="http://localhost:8080/servlet/Greet" method=get>
<table>
<tr>
<td><b>Enter Name: </b></td>
<td><input type=textbox name="user"></td>
</tr>
</table>
<input type=submit value="Submit">
</form>
</body>
</html>
```

JAVA FILE:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class Greet extends HttpServlet
{
public void doGet(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException
{
String username = req.getParameter("user");
PrintWriter pw = res.getWriter();
res.setContentType("text/html");
if(username.length() > 0) {
pw.println("<b><h1>");
pw.println("Nice to meet you! "+ username);
pw.println("</h1>");
pw.println("Your are welcome to visit this webpage");
pw.println("</b>");
}
else {
pw.println("<h2>You have not entered your name!!!</h2>");
}
pw.close();
}
}
```

OUTPUT:


Mozilla Firefox
http://local...ab/10a.html
localhost:8080/iplab/10a.html
Search
Enter Name: somashekare
Submit


Mozilla Firefox
http://loca...omashekare
localhost:8080/iplab/Greet?user=somashekare
Search
Nice to meet you! somashekare
Your are welcome to visit this webpage

10B) PROGRAM TO CHANGE THE BACKGROUND COLOR OF THE PAGE BASED ON THE COLOR SELECTED BY THE USER

HTML FILE:

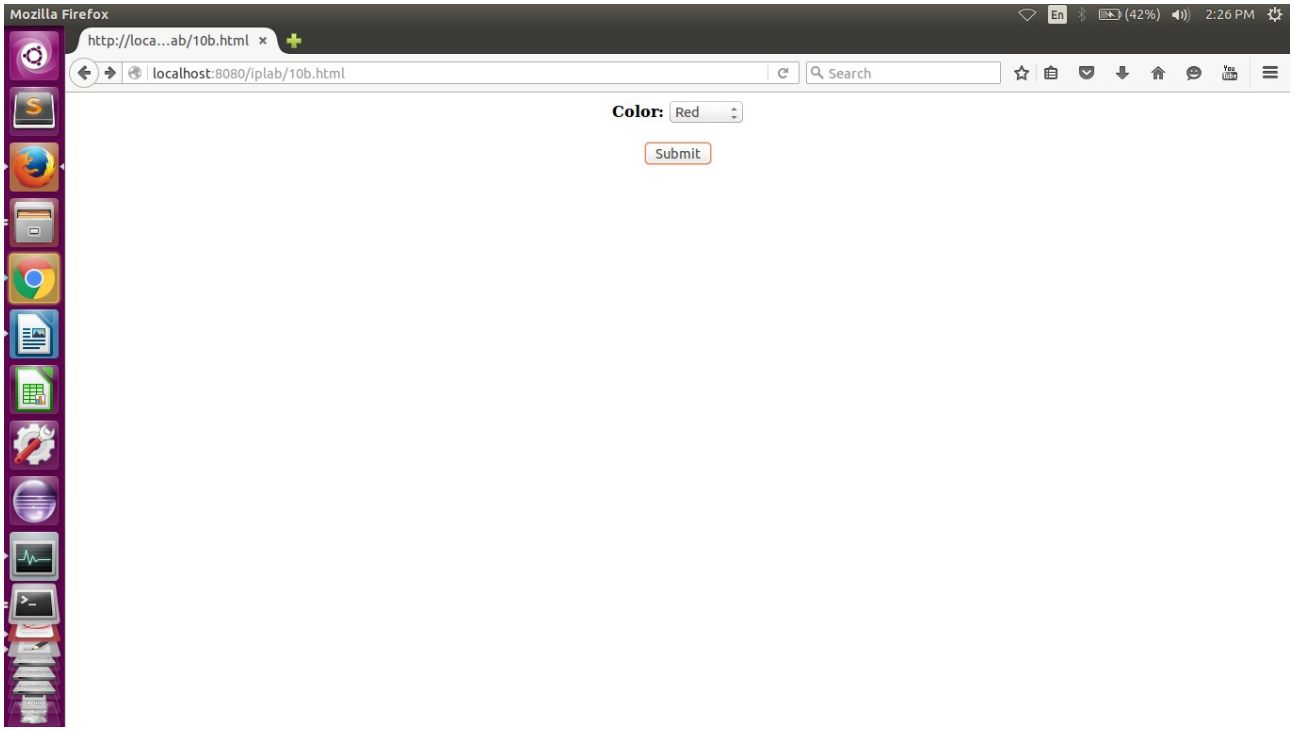
```
<html>
<body>
<center>
<form action="http://localhost:8080/servlet/ChangeColor" method=get>
<b>Color:</b>
<select name="color" size="1">
<option value="Red">Red</option>
<option value="Green">Green</option>
<option value="Blue">Blue</option>
<option value="White">White</option>
<option value="Black">Black</option>
<option value="Brown">Brown</option>
<option value="Gray">Gray</option>
<option value="Orange">Orange</option>
<option value="Yellow">Yellow</option>
</select> <br><br> <input type=submit value="Submit">
</form></body>
</html>
```

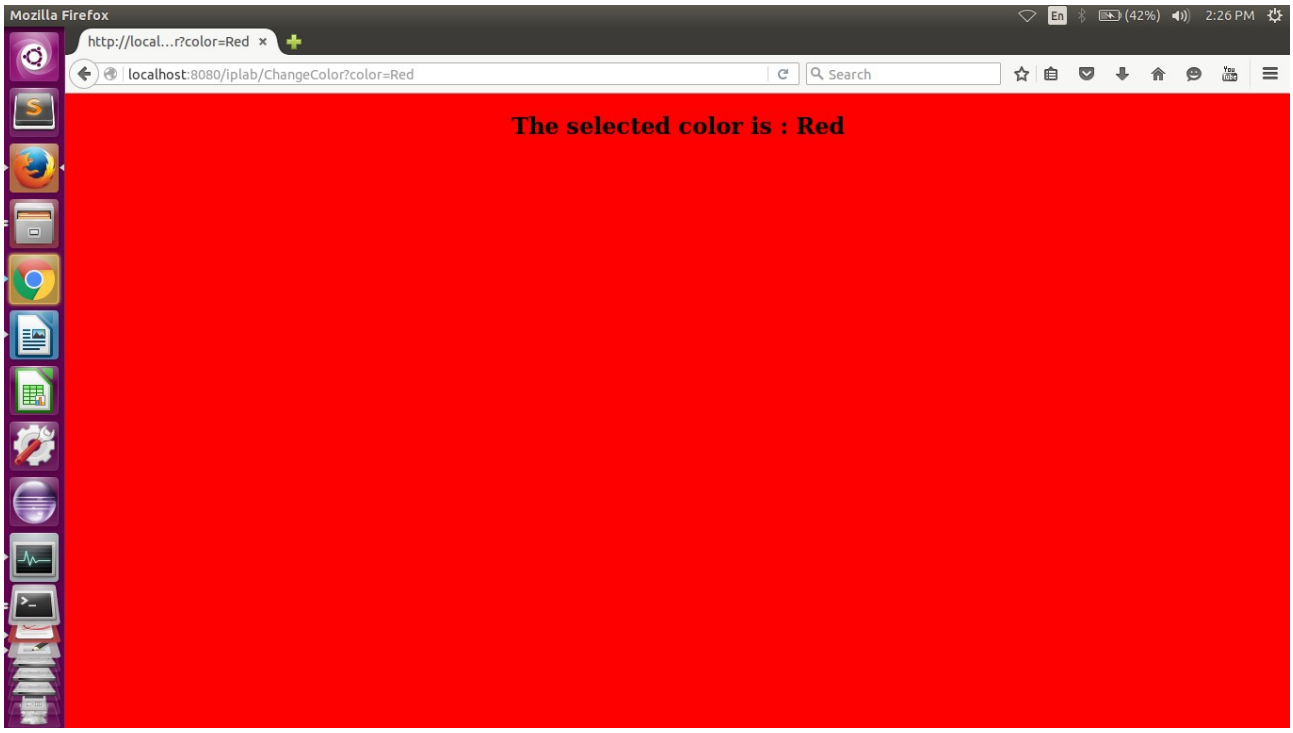
JAVA FILE:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class ChangeColor extends HttpServlet
{
public void doGet(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException
{
String color = req.getParameter("color");
PrintWriter pw = res.getWriter();
res.setContentType("text/html");
pw.println("<html>");
```

```
pw.println("<body bgcolor=" + color + ">");
pw.println("<center><h2>The selected color is : ");
pw.println(color + "</h2></center>");
pw.println("</body></html>");
pw.close();
}
}
```

OUTPUT:





11) PROGRAM TO DISPLAY A GREETING BASED ON THE ACCESS TIME OF THE SERVER

HTML FILE:

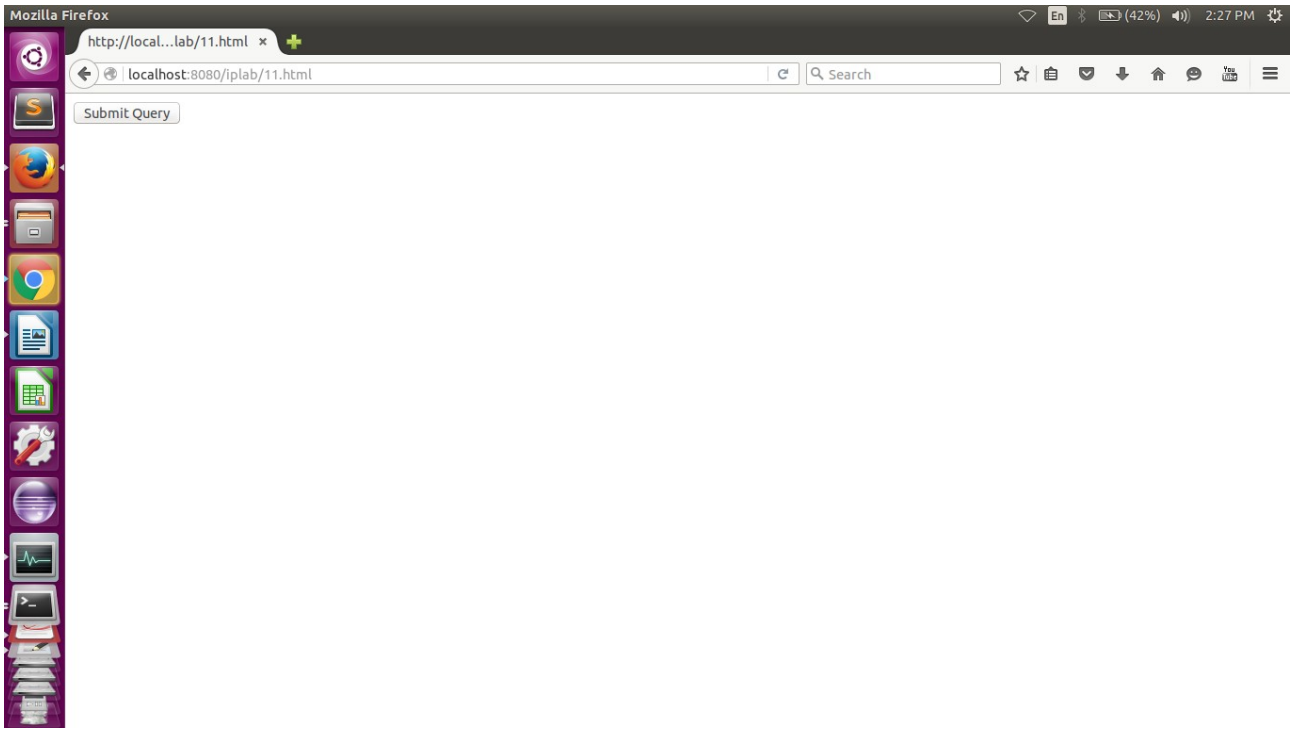
```
<html>
<body>
<form action="http:\\localhost:8080\servlet\GreetTime" method="get">
<input type="submit" name="connect server">
<body>
<html>
```

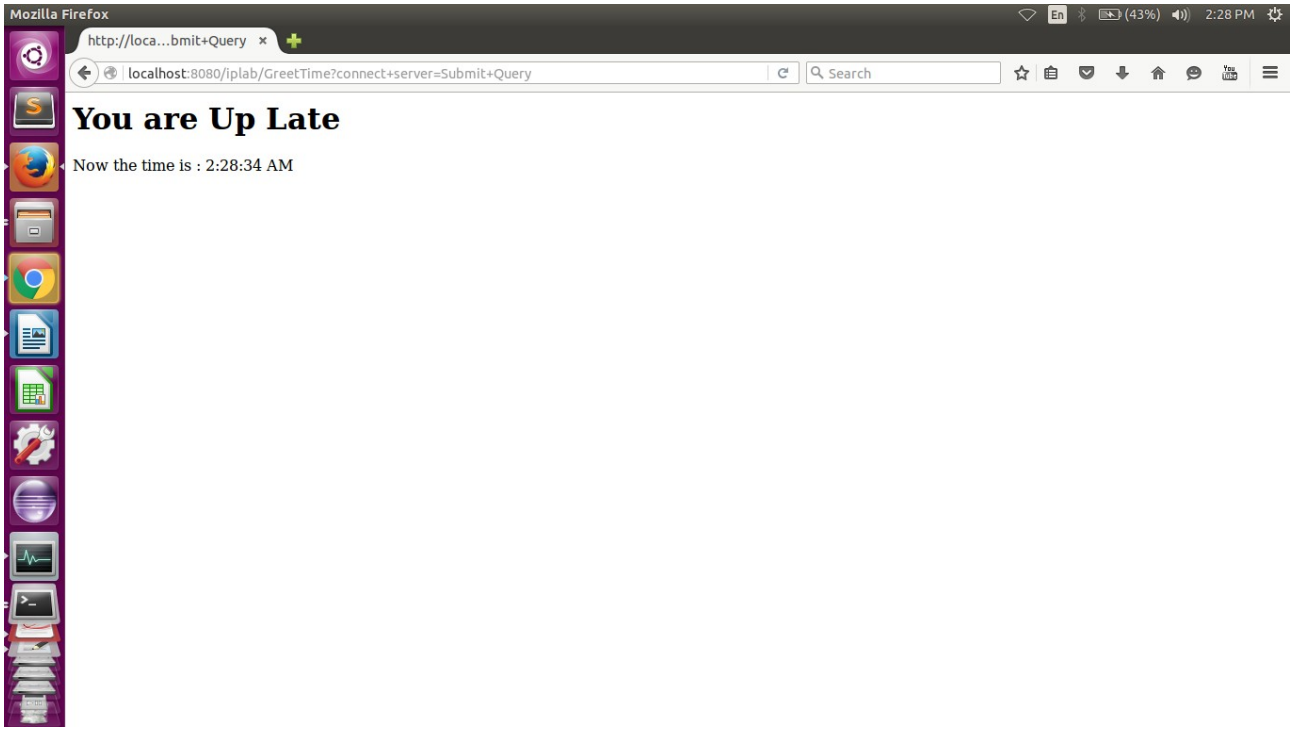
JAVA FILE:

```
import java.io.*;
import java.util.Calendar;
import javax.servlet.*;
import javax.servlet.http.*;
public class GreetTime extends HttpServlet
{
```

```
public void doGet(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException
{
int hour,minute,second;
String ampm = new String("AM");
PrintWriter pw = res.getWriter();
res.setContentType("text/html");
Calendar calendar = Calendar.getInstance();
hour = calendar.get(calendar.HOUR);
minute = calendar.get(calendar.MINUTE);
second = calendar.get(calendar.SECOND);
pw.println("<h1>");
if(hour > 23 || hour <= 6)
pw.println("You are Up Late");
else if(hour > 6 && hour <= 12)
pw.println("Good Morning");
else if(hour > 12 && hour <= 18)
pw.println("Good Afternoon");
else
pw.println("Good Evening");
pw.println("</h1>");
if(hour == 0)
hour = 12;
if(hour > 12)
{
hour -= 12;
ampm = "PM";
}
pw.println("Now the time is : " + hour + ":" + minute + ":" + second + " " +
ampm);
pw.close();
}}
```

OUTPUT:


Mozilla Firefox
http://local...lab/11.html
localhost:8080/iplab/11.html
Search
Submit Query


Mozilla Firefox
http://loca...bmit+Query
localhost:8080/iplab/GreetTime?connect+server=Submit+Query
Search
You are Up Late
Now the time is : 2:28:34 AM

12) PROGRAM TO CREATE AND DISPLAY A COOKIE

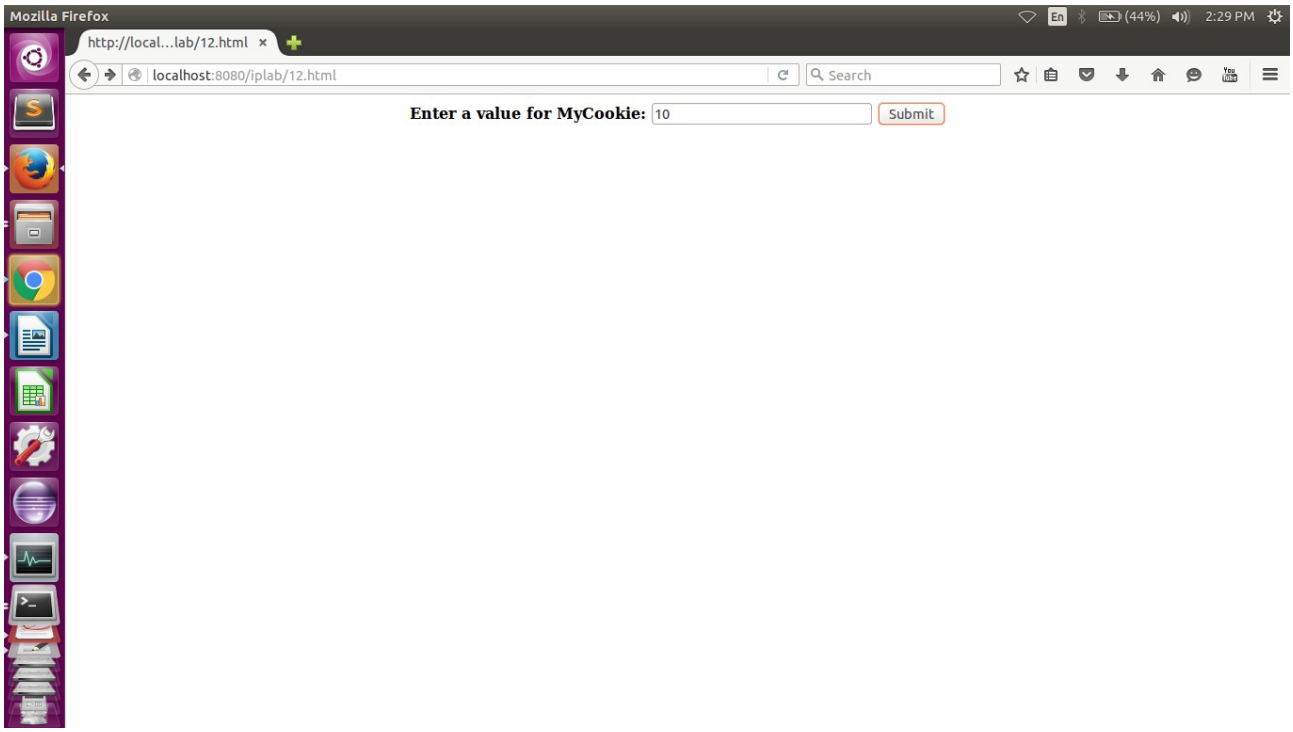
HTML FILE:

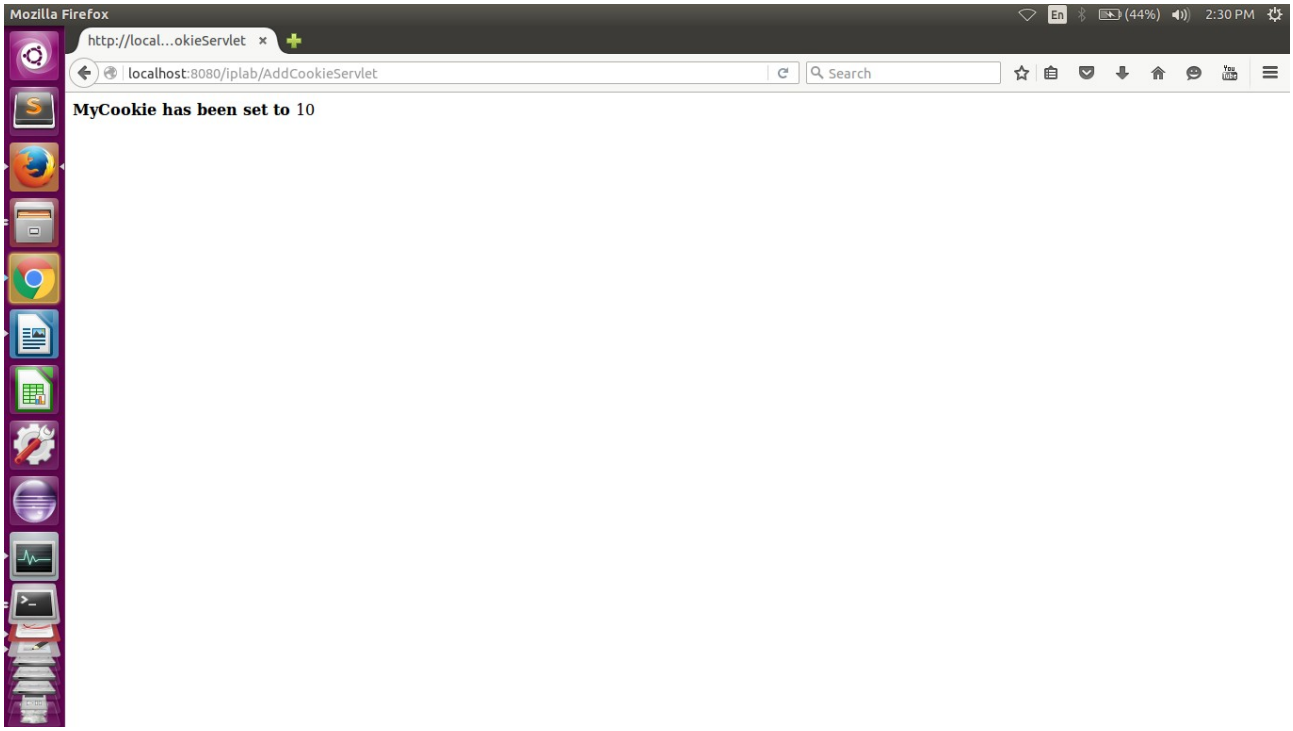
```
<html>
<body>
<center>
<form action = "http://localhost:8080/servlet/AddCookieServlet" method="post">
<b>Enter a value for MyCookie:</b>
<input type=textbox name="data">
<input type=submit value="Submit">
</form>
</body>
</html>
```

JAVA FILE:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class AddCookieServlet extends HttpServlet
{
public void doPost(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException
{
String data = req.getParameter("data");
Cookie cookie = new Cookie("MyCookie",data);
res.addCookie(cookie);
PrintWriter pw = res.getWriter();
res.setContentType("text/html");
pw.println("<b>MyCookie has been set to </b>");
pw.println(data);
pw.close();
}
}
```

OUTPUT:


Mozilla Firefox
http://local...lab/12.html
localhost:8080/iplab/12.html
Search
Enter a value for MyCookie: 10
Submit


Mozilla Firefox
http://local...okieServlet
localhost:8080/iplab/AddCookieServlet
Search
MyCookie has been set to 10

13) PROGRAM TO CREATE A SESSION AND DISPLAY SESSION INFORMATION VIZ SESSION ID CREATION TIME AND LAST ACCESSED

HTML FILE

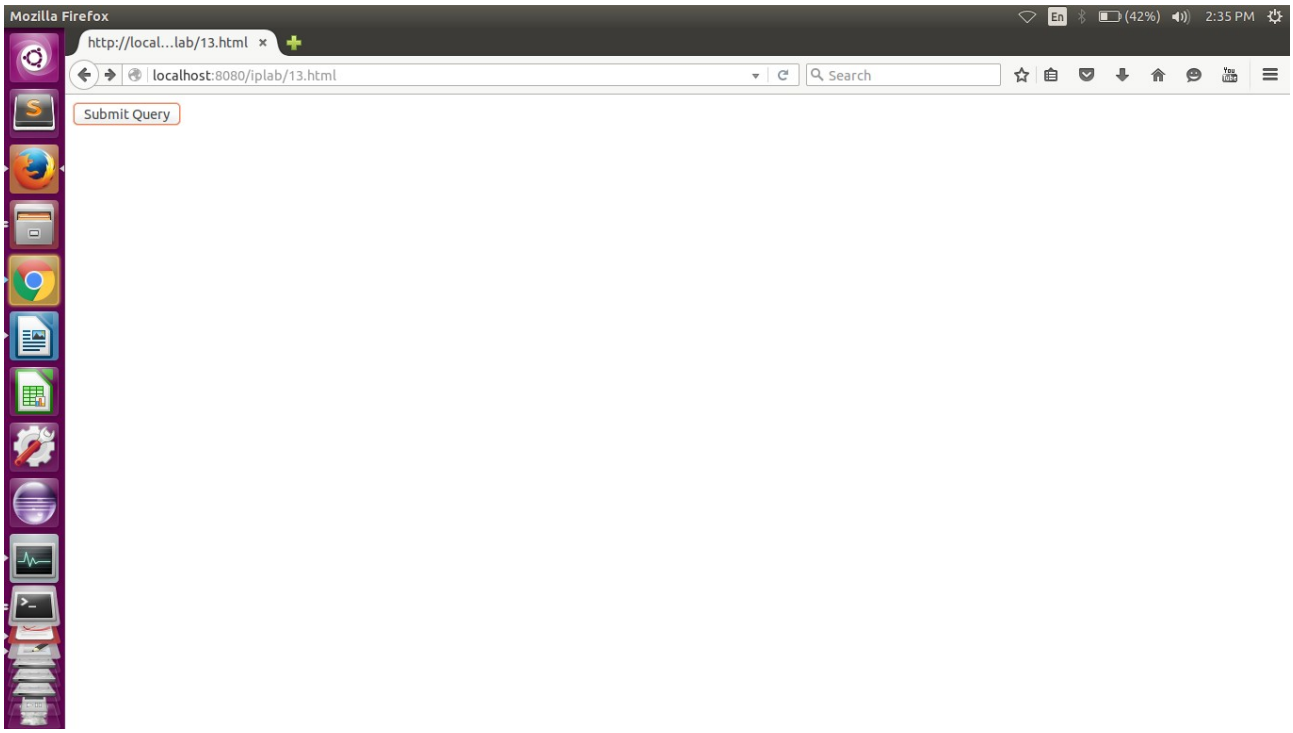
```
<html>
<body>
<form action="http:\\localhost:8080\servlet\SessionsServlet" method="get">
<input type="submit" name="connect server">
<body>
<html>
```

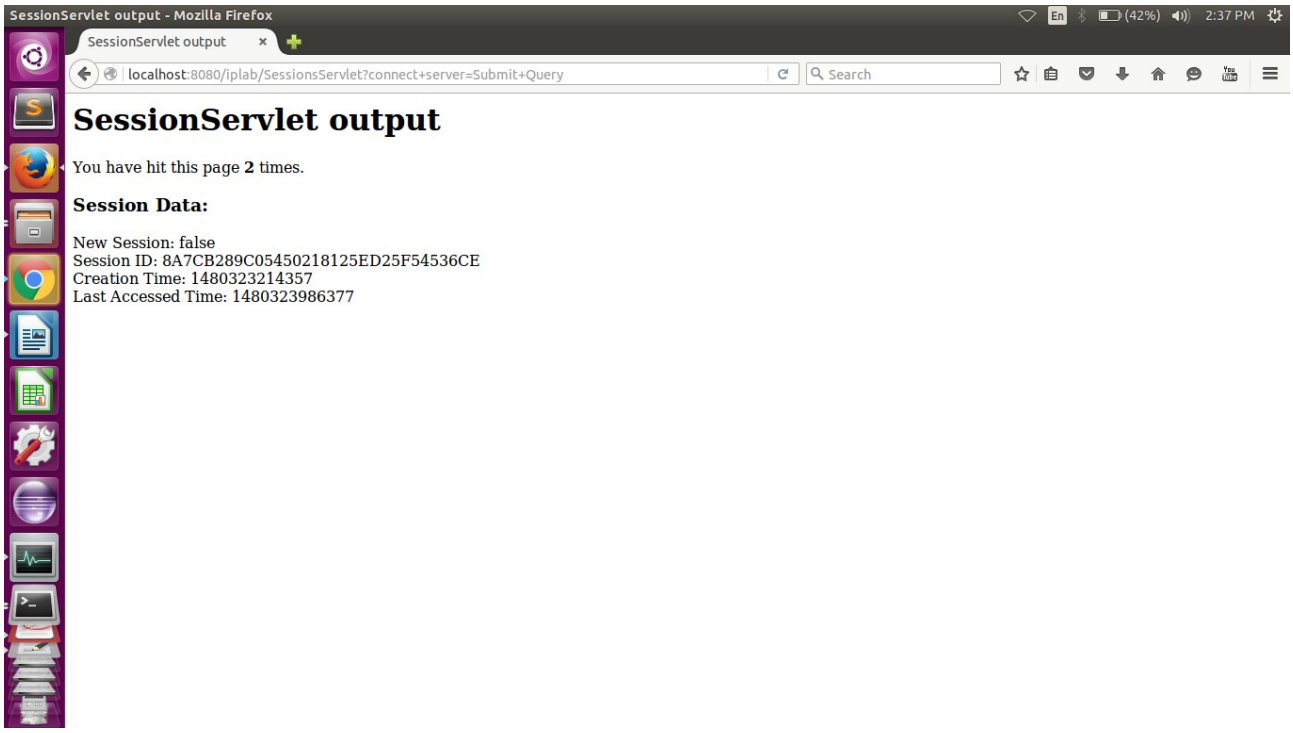
JAVA FILE:

```
import java.io.*;
import java.util.Enumeration;
import javax.servlet.*;
import javax.servlet.http.*;
public class SessionsServlet extends HttpServlet {
public void doGet (HttpServletRequest req, HttpServletResponse res)
throws ServletException, IOException
{
HttpSession session = req.getSession(true);
res.setContentType("text/html");
PrintWriter pw = res.getWriter();
pw.println("<HEAD><TITLE>
"
+
"SessionServlet
output
"
"</TITLE></HEAD><BODY>");
pw.println("<h1> SessionServlet output </h1>");
Integer ival = (Integer) session.getValue("sessiontest.counter");
if (ival==null) ival = new Integer(1);
else ival = new Integer(ival.intValue() + 1);
session.putValue("sessiontest.counter", ival);
pw.println("You have hit this page <b>" + ival + "</b> times.<p>");
pw.println("<p>");
pw.println("<h3>Session Data:</h3>");
```

```
pw.println("New Session: " + session.isNew());
pw.println("<br>Session ID: " + session.getId());
pw.println("<br>Creation Time: " + session.getCreationTime());
pw.println("<br>Last Accessed Time: " + session.getLastAccessedTime());
pw.println("</BODY>");
pw.close();
}
}
```

OUTPUT:





14) PROGRAM TO REQUEST SERVER INFORMATION VIZ REQUEST METHOD,URL,PROTOCOL AND REMOTE ADDRESS

HTML FILE:

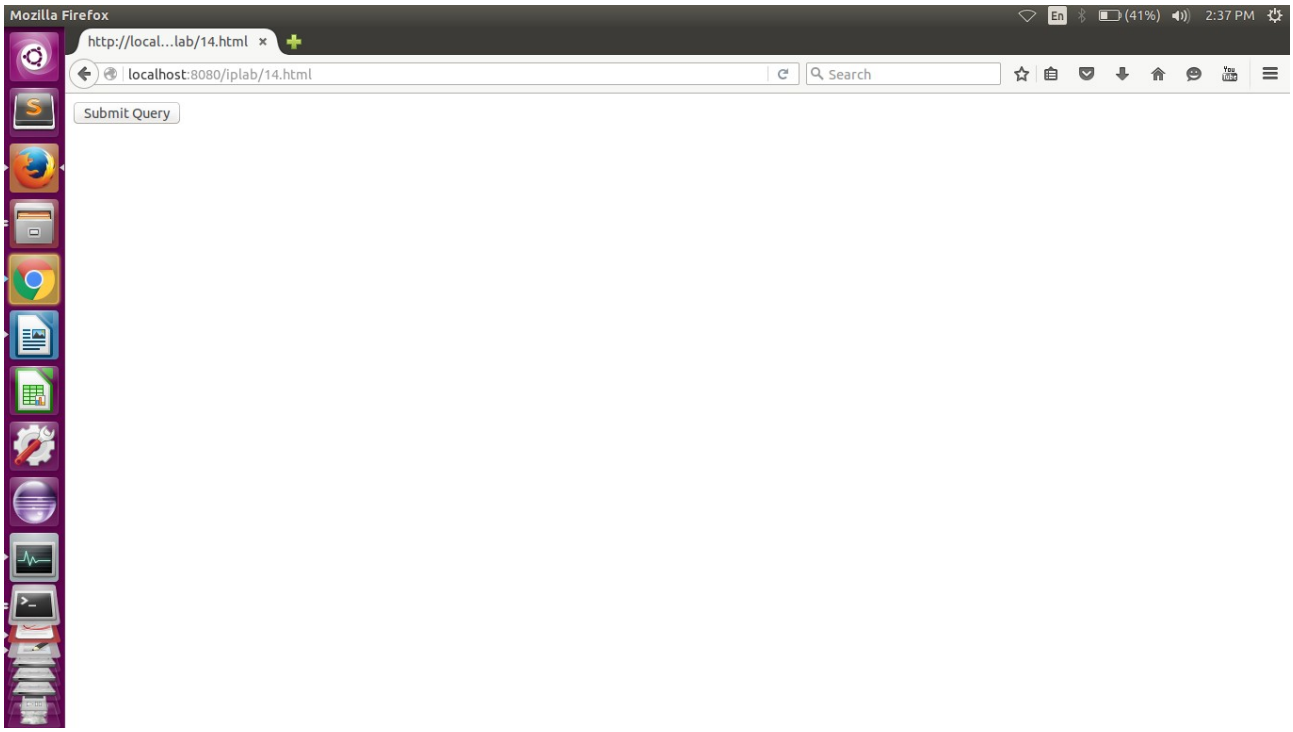
```
<html>
<body>
<form action="http:\\localhost:8080\servlet\ServerInfo" method="get">
<input type="submit" name="connect server">
<body>
<html>
```

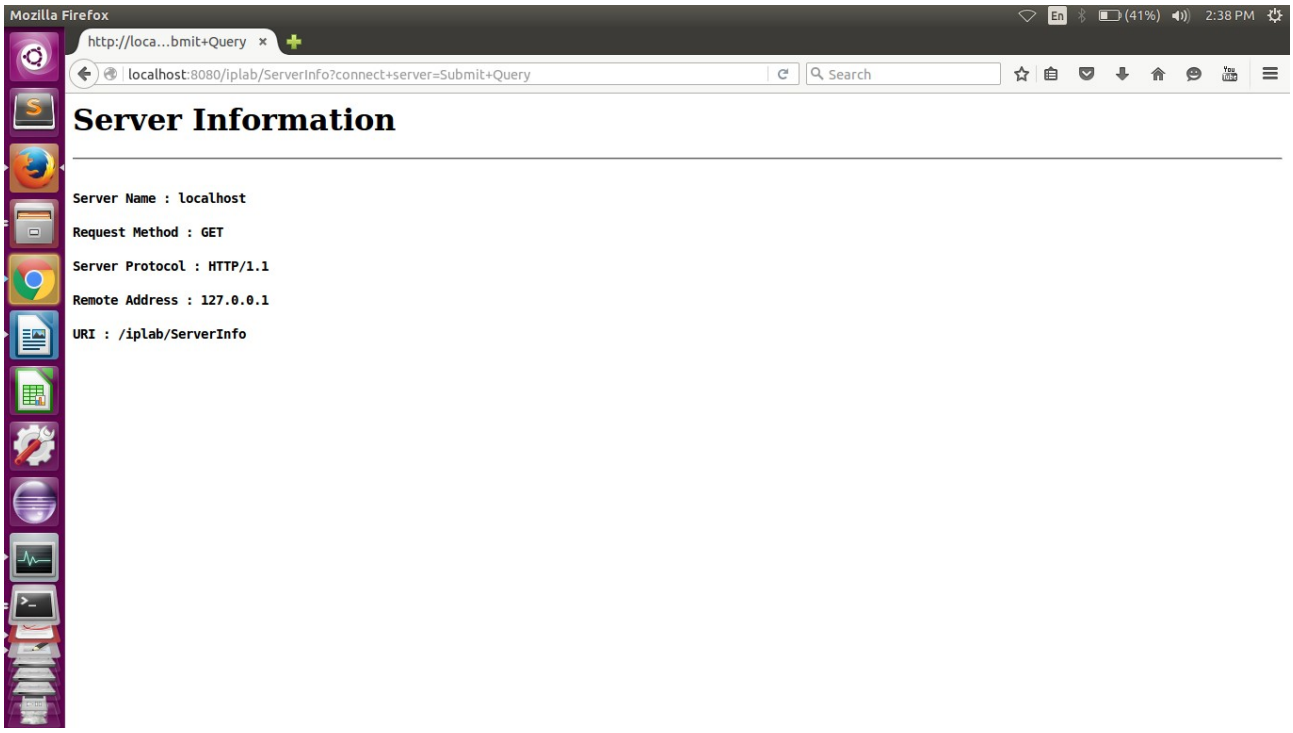
JAVA FILE:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class ServerInfo extends HttpServlet
```

```
{
public void doGet(HttpServletRequest req, HttpServletResponse
ServletException, IOException
{
String method = req.getMethod();
String uri = req.getRequestURI();
String protocol = req.getProtocol();
String remoteuser = req.getRemoteUser();
String remoteaddr = req.getRemoteAddr();
String servername = req.getServerName();
PrintWriter pw = res.getWriter();
res.setContentType("text/html");
pw.println("<h1>Server Information</h1>");
pw.println("<hr><pre><h3>");
pw.println("Server Name : " + servername + "<br>");
pw.println("Request Method : " + method + "<br>");
pw.println("Server Protocol : " + protocol + "<br>");
pw.println("Remote Address : " + remoteaddr + "<br>");
pw.println("URI : " + uri + "<br>");
pw.println("</h3></pre>");
pw.close();
}
}
```

OUTPUT:





15) PROGRAM TO ACCEPT USERNAME AND ADDRESS AND DISPLAY THEM IN A WEB PAGE BY PASSING PARAMETERS

HTML FILE:

```
<html>
<body>
<form action="http://localhost:8080/servlet/PassParameter" method=get>
<center>
<h1>
Personal Details
</h1></center>
<hr>
<table>
<tr>
<td><b>Name: </b></td>
<td><input type=textbox name="user"></td>
</tr>
<tr>
<td><b>Address : </b></td>
</tr>
<tr>
<td><b>Street: </b></td>
<td><input type=textbox name="street"></td>
</tr>
<tr>
<td><b>City: </b></td>
```

```
<td><input type=textbox name="city"></td>
</tr>
<tr>
<td><b>State: </b></td>
<td><input type=textbox name="state"></td>
</tr>
<tr>
<td><b>Phone: </b></td>
<td><input type=textbox name="phone"></td>
</tr>
</table>
<input type=submit value="Submit">
</form>
</body>
</html>
```

JAVA FILE:

```
import java.io.*;
import java.util.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class PassParameter extends HttpServlet
{
public void doGet(HttpServletRequest req, HttpServletResponse
ServletException, IOException
{
PrintWriter pw = res.getWriter();
res.setContentType("text/html");
Enumeration e = req.getParameterNames();
pw.println("<h1>Personal Details</h1>");
pw.print("<hr><pre>");
while(e.hasMoreElements())
{
String pname = (String) e.nextElement();
pw.print(pname + " = ");
String pvalue = req.getParameter(pname);
pw.println(pvalue + "<br>");
}
pw.print("</pre>");
pw.close();
}
}
```