VARDHAMAN COLLEGE OF ENGINEERING

Autonomous, Shamshabad-501218.

DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

OPEN SOURCE TECHNOLOGIES
LAB RECORD
VII Semester
A3606

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Section: A

VARDHAMAN COLLEGE OF ENGINEERING

Autonomous, Shamshabad-501218.

EXPERIMENT- 01

a.Performing basic DML , DDL commands using Mysql.

```
MariaDB [(none)]> show databases;
+--------------------+
| Database           |
+--------------------+
| college            |
| information_schema|
| mysql              |
| performance_schema |
| phpMyAdmin         |
| test               |
+--------------------+
6 rows in set (0.002 sec)
MariaDB [(none)]> use college;
MariaDB [college]> create table student(
   -> name varchar(20),
    ->id int,
   ->place varchar(20)
   -> );
Query OK, 0 rows affected (0.174 sec)
MariaDB [college]> insert into student(name,id,place)values("pallavi",1,"hyderabad");
Query OK, 1 row affected (0.162 sec)

MariaDB [college]> insert into student(name,id,place)values("kaveri",2,"bangalore");
Query OK, 1 row affected (0.057 sec)

MariaDB [college]> insert into student(name,id,place)values("krishna",3,"chennai");
Query OK, 1 row affected (0.026 sec)

MariaDB [college]> insert into student(name,id,place)values("ram",4,"mumbai");
Query OK, 1 row affected (0.084 sec)

MariaDB [college]> select * from student;
+---------+------+-----------+
| name    | id  | place     |
+---------+------+-----------+
| pallavi |   1 | hyderabad |
| kaveri  |   2 | bangalore  |
| krishna |   3 | chennai   |
| ram     |   4 | mumbai    |
+---------+------+-----------+
4 rows in set (0.000 sec)
```

```
MariaDB [college]> select * from student;
+---------+------+-----------+
| name    | id  | place     |
+---------+------+-----------+
| pallavi |   1 | hyderabad |
| kaveri  |   2 | bangalore  |
| krishna |   3 | chennai   |
| ram     |   4 | mumbai    |
+---------+------+-----------+
4 rows in set (0.000 sec)
MariaDB [college]> alter table student  add course varchar(5);
Query OK, 0 rows affected (0.215 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [college]> select * from student;
+---------+------+-----------+-------------+
| name    | id  | place     | course      |
+---------+------+-----------+-------------+
| pallavi |   1 | hyderabad | NULL |
| kaveri  |   2 | bangalore  | NULL |
| araya |   3 | chennai   | NULL |
+---------+------+-----------+-------------+
3 rows in set (0.001 sec)

MariaDB [college]> drop table student;
Query OK, 0 rows affected (0.237 sec)

MariaDB [college]> select * from student;
ERROR 1146 (42S02): Table 'college.student' doesn't exist

1b)
i) MariaDB [college]> create table student(
    -> id int,
    -> name varchar(20),
    -> address varchar(20),
    -> degree varchar(20),
    -> result float(5,2),
    -> constraint student primary key(id)
    -> );
Query OK, 0 rows affected (0.247 sec)


MariaDB [college]> create table module(
    -> code int,
    -> title varchar(20),
```

```
    -> crdval int,
    -> mleades varchar(20),
    -> teastff varchar(20),
    -> depyr int,
    -> constraint module primary key(code)
    -> );
Query OK, 0 rows affected (0.335 sec)
MariaDB [college]> create table lectures(
    -> id int,
    -> name varchar(20),
    -> mteach varchar(20),
    -> dept varchar(20),
    -> constraint lectures primary key(id)
    -> );
Query OK, 0 rows affected (0.246 sec)
MariaDB [college]> create table college1(
    -> ccode int,
    -> name varchar(20),
    -> loc varchar(20),
    -> seat_dis int,
    -> st_id int,
    -> m_id int,
    -> l_id int,
    -> constraint primary key(ccode),
    -> constraint cs_fk foreign key(st_id) references student(id),
    -> constraint cm_fk foreign key(m_id) references module(code),
    -> constraint cl_fk foreign key(l_id) references lectures(id)
    -> );

ii)MariaDB [college]> insert into student values(1,'sai','hyd','Msc',9.3);
Query OK, 1 row affected (0.077 sec)

MariaDB [college]> insert into student values(2,'kavya','hyd','Bahons',8.5);
Query OK, 1 row affected (0.054 sec)

MariaDB [college]> select * from student;

+----+-------+------+--------+----------+
| id | name  | addr | degree | crdscore |
+----+-------+------+--------+----------+
|  1 | sai   | hyd  | Msc    |      9.3 |
|  2 | kavya | hyd  | Bahons |      8.5 |
+----+-------+------+--------+----------+
2 rows in set (0.000 sec)
```

```
MariaDB [college]> insert into module values(10,'Bahons',3,'A','kavya','commerece','cse',2);
Query OK, 1 row affected (0.058 sec)

MariaDB [college]> insert into module values(11,'Msc',4,'A','barbi','basicreg','cse',3);
Query OK, 1 row affected (0.069 sec)

MariaDB [college]> insert into module values(12,'Msc',4,'A','raju','basicreg','cse',4);
Query OK, 1 row affected (0.075 sec)

MariaDB [college]> insert into module values(13,'english',4,'B','pushpa','english','h&s',1);
Query OK, 1 row affected (0.022 sec)

MariaDB [college]> select * from module;
+------+---------+--------+---------+---------+-----------+------+-------+
| code | title   | crdval | mleades | teastff | preq      | dept | depyr |
+------+---------+--------+---------+---------+-----------+------+-------+
|   10 | Bahons  |      3 | A       | kavya   | commerece | cse  |     2 |
|   11 | Msc     |      4 | A       | barbi   | basicreg  | cse  |     3 |
|   12 | Msc     |      4 | A       | raju    | basicreg  | cse  |     4 |
|   13 | english |      4 | B       | pushpa  | english   | h&s  |     1 |
+------+---------+--------+---------+---------+-----------+------+-------+
4 rows in set (0.001 sec)
MariaDB [college]> insert into lectures values(1,'rohit','stats','statistics');
Query OK, 1 row affected (0.078 sec)

MariaDB [college]> insert into lectures values(2,'kiran','maths','h&s');
Query OK, 1 row affected (0.067 sec)

MariaDB [college]> insert into lectures values(3,'abhi','graphs','statistics');
Query OK, 1 row affected (0.026 sec)

MariaDB [college]> insert into lectures values(4,'ravi','maths','h&s');
Query OK, 1 row affected (0.064 sec)

MariaDB [college]> insert into lectures values(5,'kiran','Msc','cse');
Query OK, 1 row affected (0.136 sec)
MariaDB [college]> insert into lectures values(6,'barbi','Msc','cse');
Query OK, 1 row affected (0.073 sec)

MariaDB [college]> insert into lectures values(7,'raju','Msc','cse');
Query OK, 1 row affected (0.048 sec)

MariaDB [college]> insert into lectures values(8,'pushpa','english','h&s');
Query OK, 1 row affected (0.028 sec)
```

```
MariaDB [college]> insert into lectures values(9,'arun','Msc','cse');
Query OK, 1 row affected (0.051 sec)

MariaDB [college]> insert into lectures values(10,'arjun','english','h&s');
Query OK, 1 row affected (0.067 sec)

MariaDB [college]> select * from lectures;
+----+--------+---------+------------+
| id | name   | mteach  | dept       |
+----+--------+---------+------------+
|  1 | rohit  | stats   | statistics |
|  2 | kiran  | maths   | h&s        |
|  3 | abhi   | graphs  | statistics |
|  4 | ravi   | maths   | h&s        |
|  5 | kiran  | Msc     | cse        |
|  6 | barbi  | Msc     | cse        |
|  7 | raju   | Msc     | cse        |
|  8 | pushpa | english | h&s        |
|  9 | arun   | Msc     | cse        |
| 10 | arjun  | english | h&s        |
+----+--------+---------+------------+
10 rows in set (0.001 sec)
MariaDB [college]> insert into college1 values(102,'vce','hyd',400,2,10,5);
Query OK, 1 row affected (0.061 sec)
MariaDB [college]> insert into college1 values(100,'vmeg','hyd',300,1,11,6);
Query OK, 1 row affected (0.048 sec)
MariaDB [college]> select * from college1;
+-------+------+------+----------+-------+------+------+
| ccode | name | loc  | seat_dis | st_id | m_id | l_id |
+-------+------+------+----------+-------+------+------+
|   100 | vmeg | hyd  |      300 |     1 |   11 |    6 |
|   102 | vce  | hyd  |      400 |     2 |   10 |    5 |
+-------+------+------+----------+-------+------+------+
2 rows in set (0.000 sec)


iii)MariaDB [college]> select name from student where degree='Msc';
+------+
| name |
+------+
| sai  |
+------+
1 row in set (0.001 sec)
```

v)MariaDB [college]> select name from lectures where name not in (select distinct(mleades) from module);

```
+--------+
| name   |
+--------+
| rohit  |
| kiran  |
| abhi   |
| ravi   |
| kiran  |
| barbi  |
| raju   |
| pushpa |
| arun   |
| arjun  |
```

vi)MariaDB [college]> select dept from module where title='english';

```
+------+
| dept |
+------+
| h&s  |
+------+
```

1 row in set (0.000 sec)

vii))MariaDB [college]> select dept,preq from module order by dept;

```
+------+-----------+
| dept | preq      |
+------+-----------+
| cse  | commerece |
| cse  | basicreg  |
| cse  | basicreg  |
| h&s  | english   |
+------+-----------+
```

4 rows in set (0.001 sec)

viii)MariaDB [college]> select id,name from lectures where mteach='maths';

```
+----+-------+
| id | name  |
+----+-------+
|  2 | kiran |
|  4 | ravi  |
+----+-------+
```

2 rows in set (0.000 sec)

xi)MariaDB [college]> select title,count(depyr) from module group by title;

```
+---------+--------------+
 title   | count(depyr) |
+---------+--------------+
| Bahons  |            1 |
| english |            1 |
| Msc     |            2 |
+---------+--------------+
3 rows in set (0.001 sec)
```

x)MariaDB [college]> select id,name from lectures where dept='statistics';

```
+----+-------+
| id | name  |
+----+-------+
|  1 | rohit |
|  3 | abhi  |
+----+-------+
2 rows in set (0.000 sec)
```

EXPERIMENT-02

i)MariaDB [employee]> select * from emp;

empno	ename	job	mgr	hiredate	sal	comm	depno
101	smith	clerk	7902	1980-12-17	800	0	20
102	allen	salesman	7698	1981-02-20	1600	300	30
103	ward	salesman	7698	1981-02-22	1250	500	30
104	johnes	manager	7839	1981-04-02	2975	0	20
105	martin	salesman	7698	1981-09-28	1250	1400	30
106	clark	manager	7839	1981-06-09	2450	0	10
107	scott	analyst	7566	1982-12-09	3000	0	20
108	king	president	0	1981-11-17	5000	0	10
109	turner	salesman	7698	1981-09-08	1500	0	30
110	adams	clerk	7788	1981-09-08	1100	0	20
111	ford	analyst	7566	1983-01-12	3000	0	20
112	miller	clerk	7782	1982-01-23	1300	0	10

12 rows in set (0.001 sec)

ii)MariaDB [employee]> select * from dept;

depno	depname	loca
10	accounting	newyork
20	research	dallas
30	sales	chicago
40	operations	boston

4 rows in set (0.000 sec)

iii)MariaDB [employee]> update emp set ename='adam' where ename='adams';
Query OK, 1 row affected (0.069 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [employee]> select * from emp;

empno	ename	job	mgr	hiredate	sal	comm	depno
101	smith	clerk	7902	1980-12-17	800	0	20
102	allen	salesman	7698	1981-02-20	1600	300	30
103	ward	salesman	7698	1981-02-22	1250	500	30
104	johnes	manager	7839	1981-04-02	2975	0	20
105	martin	salesman	7698	1981-09-28	1250	1400	30
106	clark	manager	7839	1981-06-09	2450	0	10

107	scott	analyst	7566	1982-12-09	3000	0	20
108	king	president	0	1981-11-17	5000	0	10
109	turner	salesman	7698	1981-09-08	1500	0	30
110	adam	clerk	7788	1981-09-08	1100	0	20
111	ford	analyst	7566	1983-01-12	3000	0	20
112	miller	clerk	7782	1982-01-23	1300	0	10
+-------+--------+-----------+------+------------+------+------+-------+
12 rows in set (0.000 sec)

iv)MariaDB [employee]> update emp set sal=2000,comm=500 where empno=109;
Query OK, 1 row affected (0.070 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [employee]> select * from emp;
+-------+--------+-----------+------+------------+------+------+-------+
| empno | ename | job | mgr | hiredate | sal | comm | depno |
+-------+--------+-----------+------+------------+------+------+-------+
101	smith	clerk	7902	1980-12-17	800	0	20
102	allen	salesman	7698	1981-02-20	1600	300	30
103	ward	salesman	7698	1981-02-22	1250	500	30
104	johnes	manager	7839	1981-04-02	2975	0	20
105	martin	salesman	7698	1981-09-28	1250	1400	30
106	clark	manager	7839	1981-06-09	2450	0	10
107	scott	analyst	7566	1982-12-09	3000	0	20
108	king	president	0	1981-11-17	5000	0	10
109	turner	salesman	7698	1981-09-08	2000	500	30
110	adam	clerk	7788	1981-09-08	1100	0	20
111	ford	analyst	7566	1983-01-12	3000	0	20
112	miller	clerk	7782	1982-01-23	1300	0	10
+-------+--------+-----------+------+------------+------+------+-------+
12 rows in set (0.000 sec)

v)MariaDB [employee]> select depno,depname from dept where depno>10 and loca='newyork';
Empty set (0.000 sec)

vi)MariaDB [employee]> select * from emp where depno=10 and job='clerk';

+-------+--------+-------+------+------------+------+------+-------+
| empno | ename | job | mgr | hiredate | sal | comm | depno |
+-------+--------+-------+------+------------+------+------+-------+
101	smith	clerk	7902	1980-12-17	800	0	20
110	adam	clerk	7788	1981-09-08	1100	0	20
112	miller	clerk	7782	1982-01-23	1300	0	10
+-------+--------+-------+------+------------+------+------+-------+
3 rows in set (0.001 sec)

vii)MariaDB [employee]> select count(*),depno from emp where job='clerk' group by depno having depno=10;

```
+----------+-------+
| count(*) | depno |
+----------+-------+
|        1 |    10 |
+----------+-------+
```

1 row in set (0.001 sec)

viii)MariaDB [employee]> select avg(sal) from emp;

```
+-----------+
| avg(sal)  |
+-----------+
| 2143.7500 |
+-----------+
```

1 row in set (0.000 sec)

ix)MariaDB [employee]> select * from emp where sal=(select avg(sal)from emp);
Empty set (0.000 sec)

x)MariaDB [employee]> select * from emp where sal=(select min(sal)from emp);

```
+-------+-------+-------+------+------------+------+------+-------+
| empno | ename | job   | mgr  | hiredate   | sal  | comm | depno |
+-------+-------+-------+------+------------+------+------+-------+
|   101 | smith | clerk | 7902 | 1980-12-17 | 800 |    0 |    20 |
+-------+-------+-------+------+------------+------+------+-------+
```

1 row in set (0.004 sec)

xi)MariaDB [employee]> select e.ename from emp e where e.ename='a%n';
Empty set (0.000 sec)

xii)MariaDB [employee]> select * from emp where sal>1500 order by depno;

```
+-------+--------+-----------+------+------------+------+------+-------+
| empno | ename  | job       | mgr  | hiredate   | sal  | comm | depno |
+-------+--------+-----------+------+------------+------+------+-------+
|   106 | clark  | manager   | 7839 | 1981-06-09 | 2450 |    0 |    10 |
|   108 | king   | president |    0 | 1981-11-17 | 5000 |    0 |    10 |
|   104 | johnes | manager   | 7839 | 1981-04-02 | 2975 |    0 |    20 |
|   107 | scott  | analyst   | 7566 | 1982-12-09 | 3000 |    0 |    20 |
|   111 | ford   | analyst   | 7566 | 1983-01-12 | 3000 |    0 |    20 |
|   102 | allen  | salesman  | 7698 | 1981-02-20 | 1600 |  300 |    30 |
|   109 | turner | salesman  | 7698 | 1981-09-08 | 2000 |  500 |    30 |
+-------+--------+-----------+------+------------+------+------+-------+
```

7 rows in set (0.001 sec)

xiii)MariaDB [employee]> select d.depno,d.depname,min(e.sal) from dept d,emp e where d.depno=e.depno group by d.depno,d.depname;

depno	depname	min(e.sal)
10	accounting	1300
20	research	800
30	sales	1250

3 rows in set (0.001 sec)

xiv)MariaDB [employee]> select e.ename,e.empno,d.depname,d.loca from emp e,dept d where
-> d.depno=e.depno;

ename	empno	depname	loca
smith	101	research	dallas
allen	102	sales	chicago
ward	103	sales	chicago
johnes	104	research	dallas
martin	105	sales	chicago
clark	106	accounting	newyork
scott	107	research	dallas
king	108	accounting	newyork
turner	109	sales	chicago
adam	110	research	dallas
ford	111	research	dallas
miller	112	accounting	newyork

12 rows in set (0.001 sec)

xv)MariaDB [employee]> select ename,empno,sal from emp where hiredate>'1997-02-01';
Empty set (0.001 sec)

MariaDB [employee]> select max(sal) from emp where sal<(select max(sal) from emp);

max(sal)
3000

1 row in set (0.000 sec)

MariaDB [employee]> select ename from emp where mgr is null;
Empty set (0.001 sec)

EXPERIMENT-03

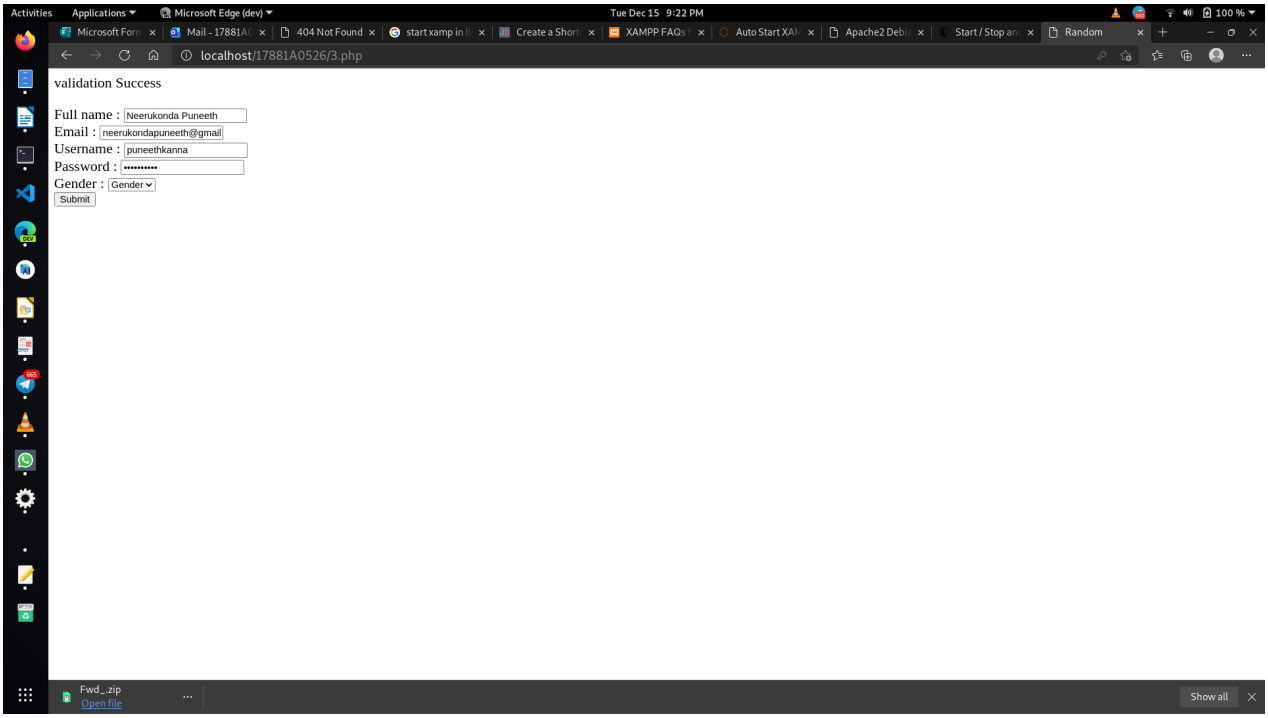
3a) Write a PHP program to validate form contents using regular expressions.

```
<?php
$name=$email=$username=$password=$gender="";
$error_name=$error_email=$valid_name=$valid_email=$valid_password=$valid_username=$vali
d_gender="";
$error_password=$error_username=$error_gender="";
if($_POST)
{
$name = $_POST['name'];
$email = $_POST['email'];
$username = $_POST['username'];
$password = $_POST['password'];
$gender = $_POST['gender'];
if (preg_match('/^[A-Za-z0-9 ]{3,20}$/',$name)) // Full Name
{
$valid_name=$name;
}
else
{
$error_name="Enter valid Name.";
}
if (preg_match('/^[a-zA-Z0-9._-]+@[a-zA-Z0-9._-]+\.([a-zA-Z]{2,4})$/', $email)) // Email
{
$valid_email=$email;
}
else
{
$error_email="Enter valid Email.";
}
if (preg_match('/^[A-Za-z0-9_]{3,20}$/',$username)) // Usename min 2 char max 20 char
{
$valid_username=$username;
}
else
{
$error_username="Enter valid Username min 3 Chars.";
}
if (preg_match('/^[A-Za-z0-9!@#$%^&*()_]{6,20}$/',$password))
{
$valid_password=$password;
}
else
```

```
{
$error_password="Enter valid Password min 6 Chars.";
}
if ($gender==0) // Gender
{
$error_gender="Select Gender";
}
else
{
$valid_gender=$gender;
}
if((strlen($valid_name)>0)&&(strlen($valid_email)>0)&&(strlen($valid_username)>0)&&(strlen(
$valid_password)>0) && $valid_gender>0 )
{
  echo "validation Success";
}
else{
  echo "error";
}
}
?>

<form method="post" action="" name="form">
Full name : <input type="text" name="name" value="<?php echo $valid_name; ?>" />
<?php echo $error_name; ?></br>
Email : <input type="text" name="email" value="<?php echo $valid_email; ?>" />
<?php echo $error_email; ?></br>
Username : <input type="text" name="username" value="<?php echo $valid_username; ?>"
/>
<?php echo $error_username; ?></br>
Password : <input type="password" name="password" value="<?php echo $valid_password;
?>" />
<?php echo $error_password; ?></br>
Gender : <select name="gender">
<option value="0">Gender</option>
<option value="1">Male</option>
<option value="2">Female</option> </select>
<?php echo $error_gender; ?> <br>
<input type="submit" value="Submit">
</form>
```

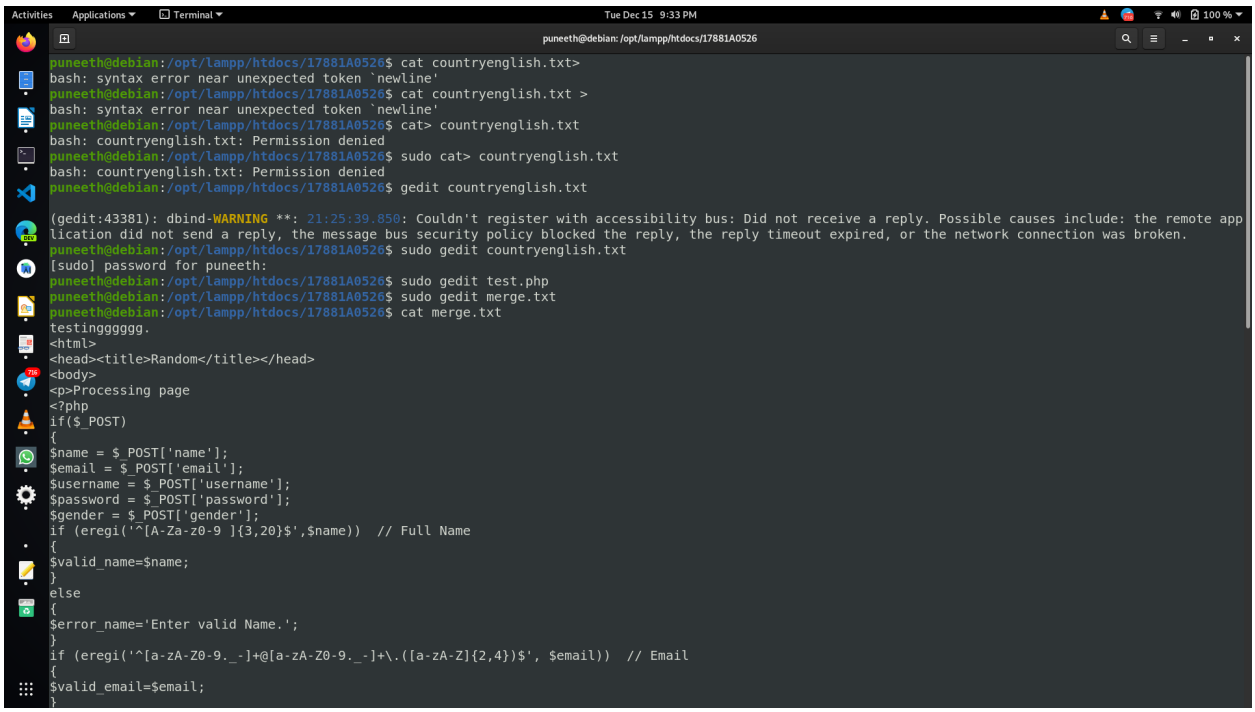
Output:


Activities
Applications
Microsoft Edge (dev)
Tue Dec 15 9:22 PM
100 %
Random
localhost/17881A0526/3.php
validation Success
Full name : Neerukonda Puneeth
Email : neerukondapuneeth@gmail
Username : puneethkanna
Password :
Gender : Gender
Submit
Fwd_.zip
Open file
Show all

3b) Write a PHP program to merge the contents of two files and store into another file.

```
<?php
$lines = file('Country.txt');
$lines2 = file('countryenglish.txt');
foreach ($lines as $key => $val) {
$lines[$key] = $val.$lines2[$key];
}
file_put_contents('countryenglish2.txt', implode("\n", $lines));
?>
```

Output:



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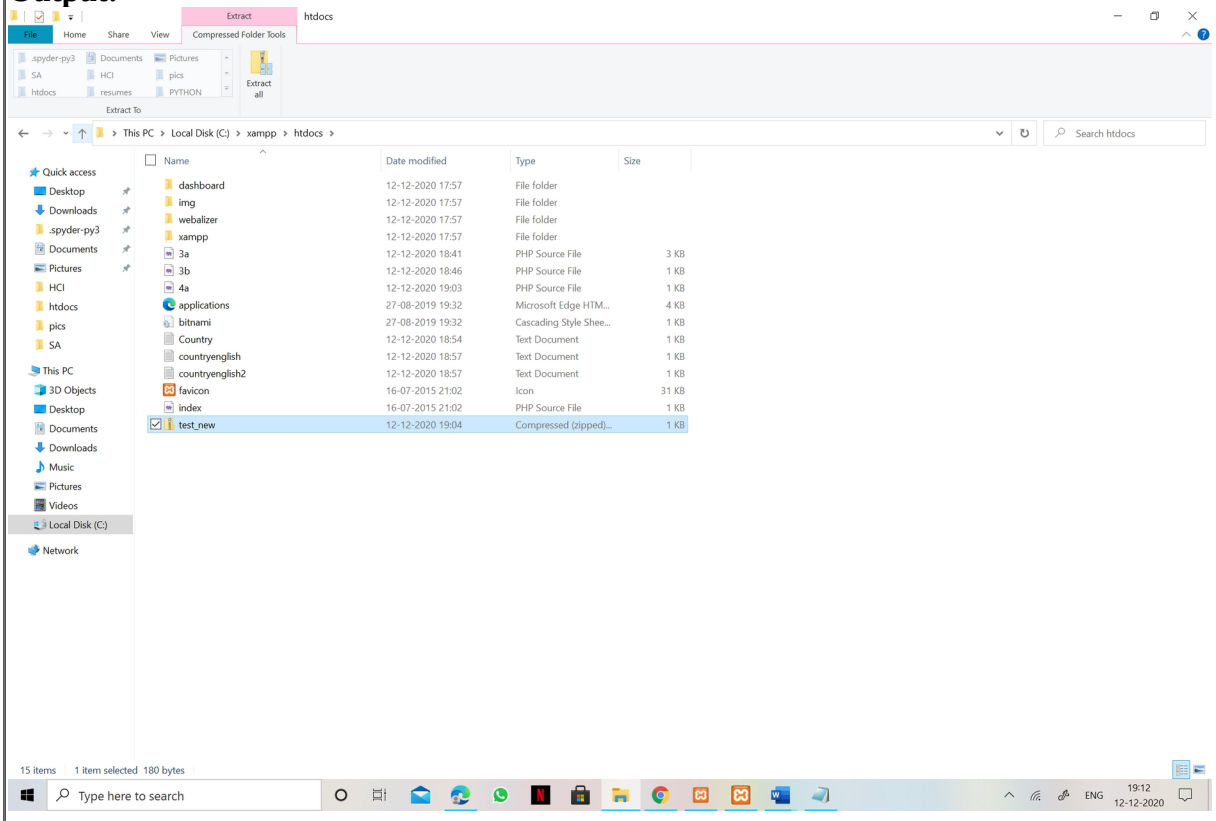
EXPERIMENT-04

4a)Write a PHP program to create a ZIP file using PHP.

```
<?php
$zip = new ZipArchive;
if ($zip->open('test_new.zip', ZipArchive::CREATE) === TRUE)
{
    $zip->addFile('countryenglish.txt');
    $zip->addFile('valid.php');
     $zip->addFile('2b.php');
     $zip->close();
}
?>
```

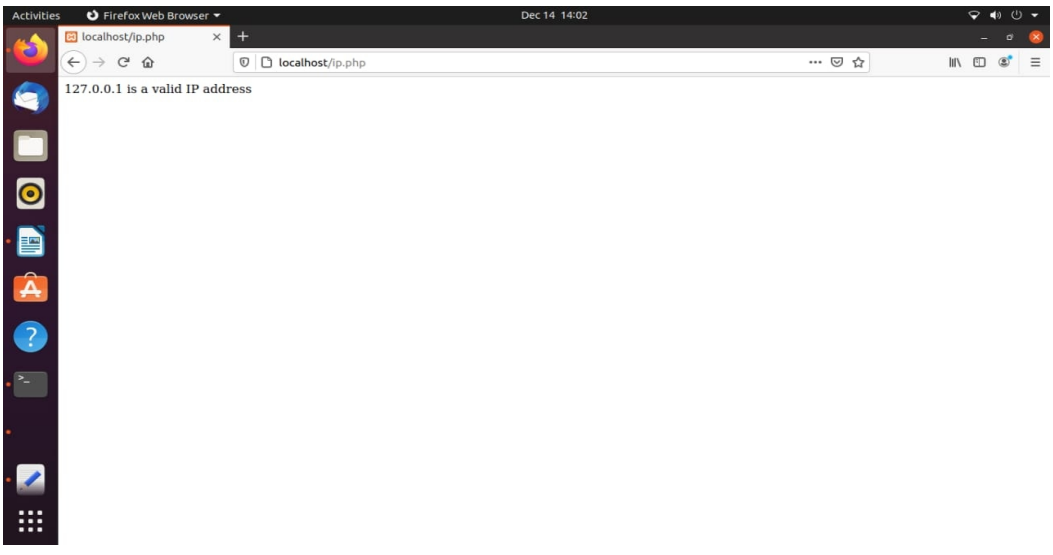
Output:

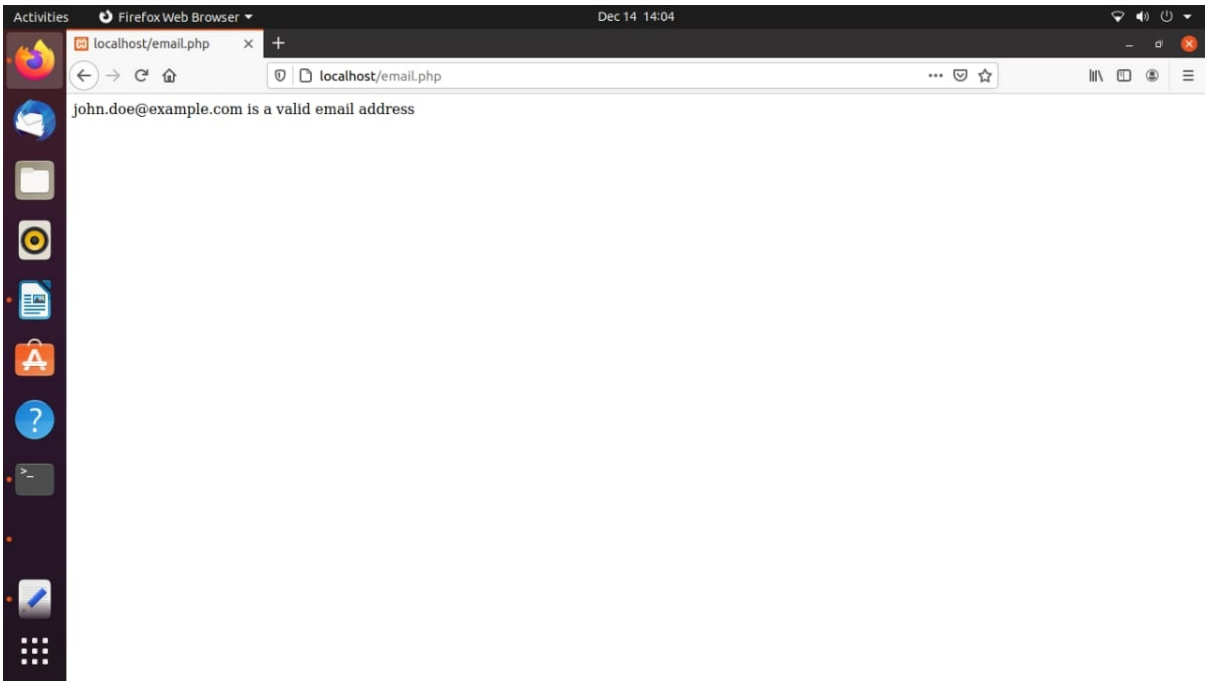


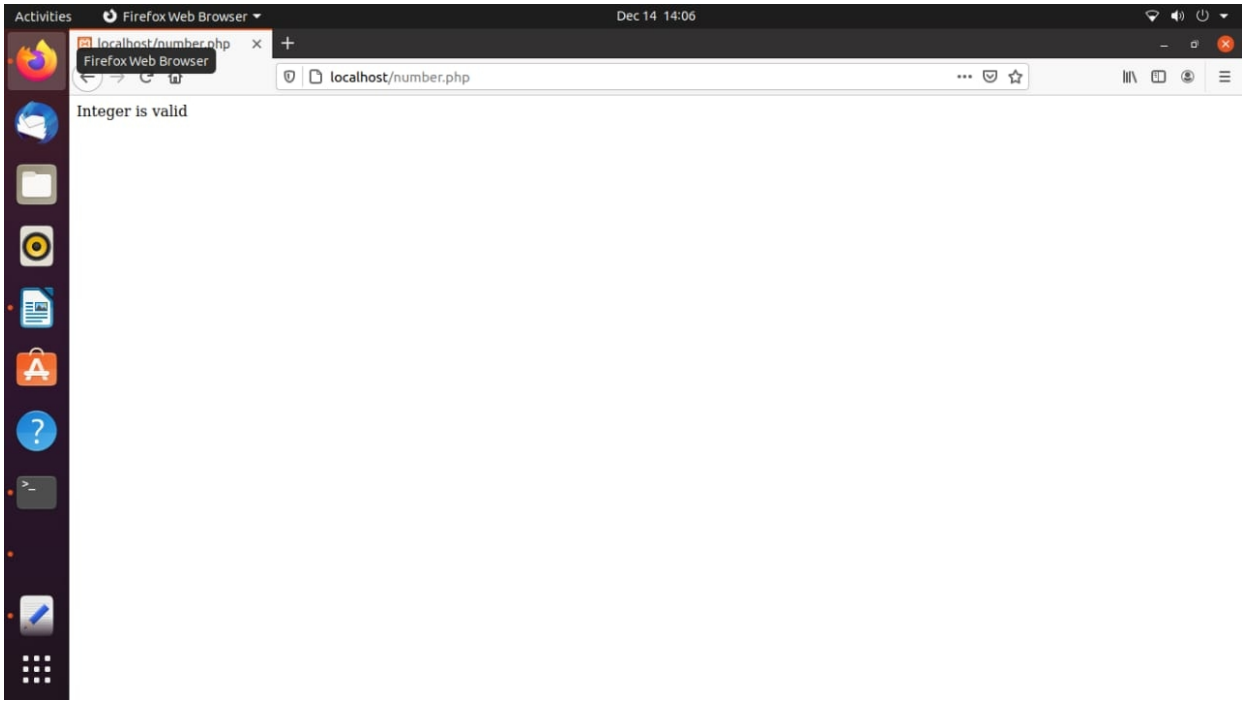
4b) Write a PHP program to validate IP address, Integer and E-mail using filters.

```
<?php
$ip = "127.0.0.1";
if (!filter_var($ip, FILTER_VALIDATE_IP) === false) {
echo("$ip is a valid IP address");
} else {
echo("$ip is not a valid IP address");
}
?>
<br>
<?php
$email = "john.doe@example.com";
// Remove all illegal characters from email
$email = filter_var($email, FILTER_SANITIZE_EMAIL);
// Validate e-mail
if (!filter_var($email, FILTER_VALIDATE_EMAIL) === false) {
echo("$email is a valid email address");
} else {
echo("$email is not a valid email address");
}
?>
<br>
<?php
$int = 100;
if (!filter_var($int, FILTER_VALIDATE_INT) === false) {
echo("Integer is valid");
} else {
echo("Integer is not valid");
}
?>
```

Output:




Activities
Firefox Web Browser
Dec 14 14:04
localhost/email.php
localhost/email.php
john.doe@example.com is a valid email address


Activities
Firefox Web Browser
Dec 14 14:06
localhost/number.php
Firefox Web Browser
localhost/number.php
Integer is valid

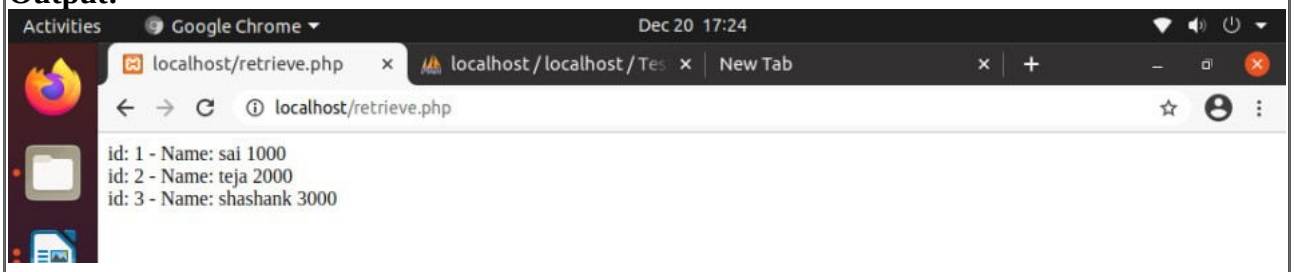
EXPERIMENT-05

5a) Write a PHP program to retrieve the data from MySQL database

Program:

```
<?php
$servername="localhost";
$username="root";
$password="";
$database_name="Test_DB";
$conn=mysqli_connect($servername,$username,$password,
if (!$conn)
{
die("Connection failed: " . mysqli_connect_error);
}
$sql = "SELECT eid,ename,salary FROM Employee";
$result = $conn->query($sql);
$database_name);
if ($result->num_rows > 0) {
while($row = $result->fetch_assoc()) {
echo "id: " . $row["eid"]. " - Name: " . $row["ename"]. " " . $row["salary"].
}
} else {
echo "0 results";
}
$conn->close();
?>
```

Output:



5b) Write a PHP program to implement sessions and cookies.

Creating a cookie

```
<?php
    setcookie("user_name", "Guru99", time()+ 60,'/'); // expires after 60 seconds
    echo 'the cookie has been set for 60 seconds';    ?>
```

Retrieving a cookie

```
<?php   print_r($_COOKIE);    ?>
```

Deleting a cookie

```
<?php   setcookie("user_name", "Guru99", time() - 360,'/');   ?>
```

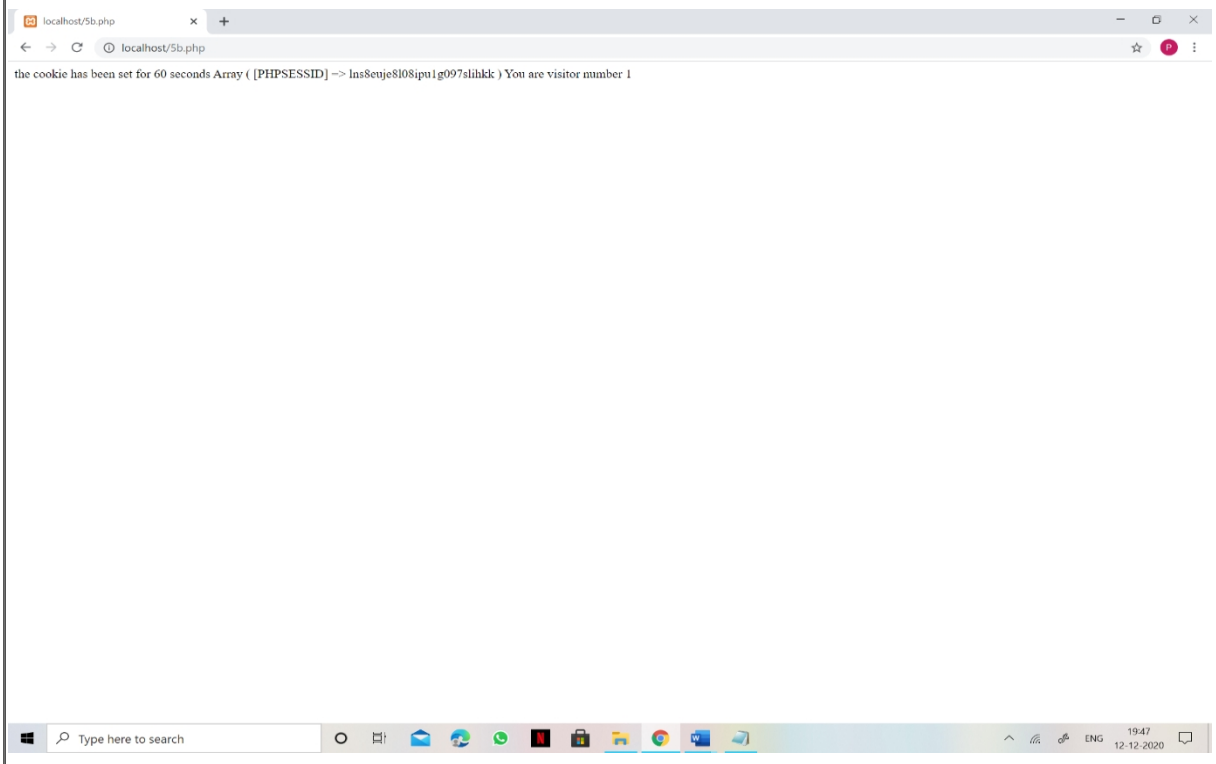
Creating and accessing a session

```
<?php    session_start(); //start the PHP_session function
if(isset($_SESSION['page_count']))
{    $_SESSION['page_count'] += 1;   }
else
{   $_SESSION['page_count'] = 1;  }
 echo 'You are visitor number ' . $_SESSION['page_count']; ?>
```

Destroying a session

```
<?php    session_destroy(); //destroy entire session  ?>
```

Output:



EXPERIMENT-06

6a)Write a PHP program to authenticate login credentials.

Code:

Login.php:

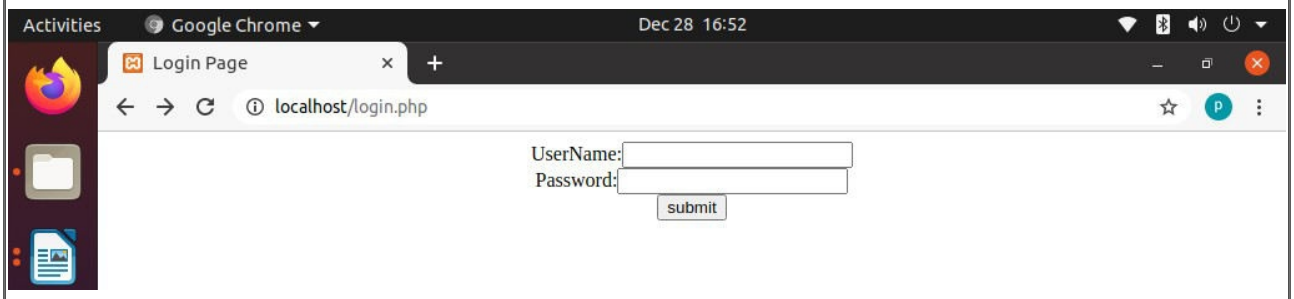
```
<?php
if($_POST)
{
$servername="localhost";
$username="root";
$password="";
$database_name="Test_DB";
$user=$_POST['user'];
$pwd=$_POST['pwd'];
$conn=mysqli_connect($servername,$username,
$password,$database_name);
if (!$conn)
{
die("Connection failed: " . mysqli_connect_error);
}
$sql = "SELECT * from Login where user='$user' and pwd='$pwd'";
$result = mysqli_query($conn,$sql);
if(mysqli_num_rows($result)==1)
{
session_start();
$_SESSION['auth']='true';
header('location:welcome.php');
}
else
{
echo 'Wrong Username or Password! :( ' ;
}
}
?>
<html>
<head>
<title>Login Page</title>
</head>
<body>
<center>
<form method="POST" action="">VARDHAMAN COLLEGE OF ENGINEERING
Autonomous, Shamshabad-501218.
UserName:<input type="text" name="user"></br>
Password:<input type="password" name="pwd"></br>
```

```
<input type="submit" value="submit">
</form>
</body>
</html>
```

welcome.php

```
<?php
session_start();
if(!$_SESSION['auth'])
{
header('location:login.php');
}
?>
<h1>Welcome! You are authenticated :) </h1>
```

Outputs:



6b) Write a PHP program to insert the contents of student registration form (Rno , name ,branch ,age , email ,and phone)into Mysql database.

Code:

stud.html:

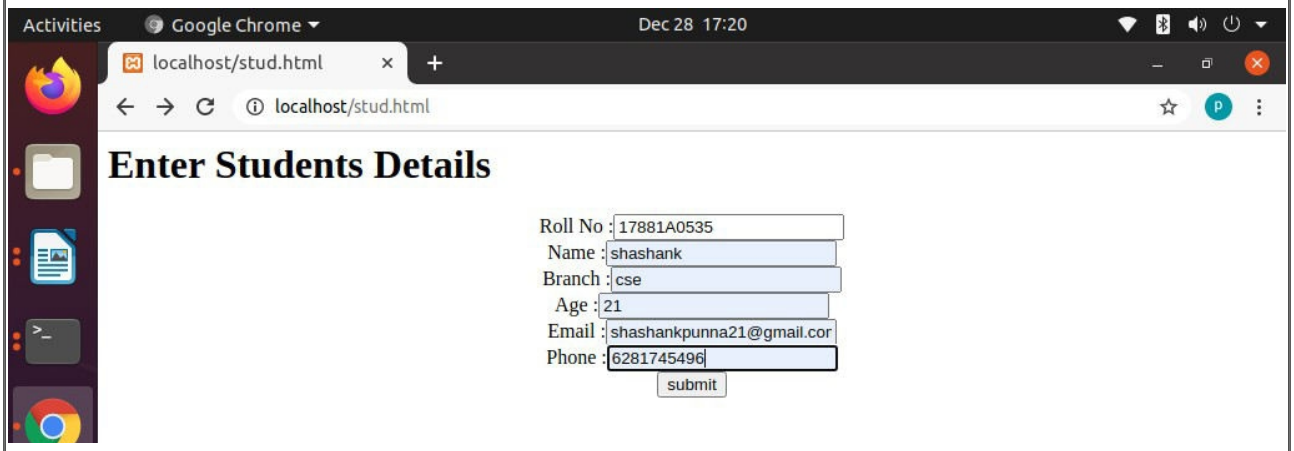
```
<html>
<head>
</head>
<body>
<h1>Enter Students Details</h1>
<center>
<form method="POST" action="insert.php">
Roll No :<input type="text" name="roll"/></br>
Name :<input type="text" name="name"/></br>
Branch :<input type="text" name="branch"/></br>
Age :<input type="text" name="age"/></br>
Email :<input type="text" name="email"/></br>
Phone :<input type="text" name="phone"/></br>
<input type="submit" value="submit">
</form>
</center>
</body>
</html>
```

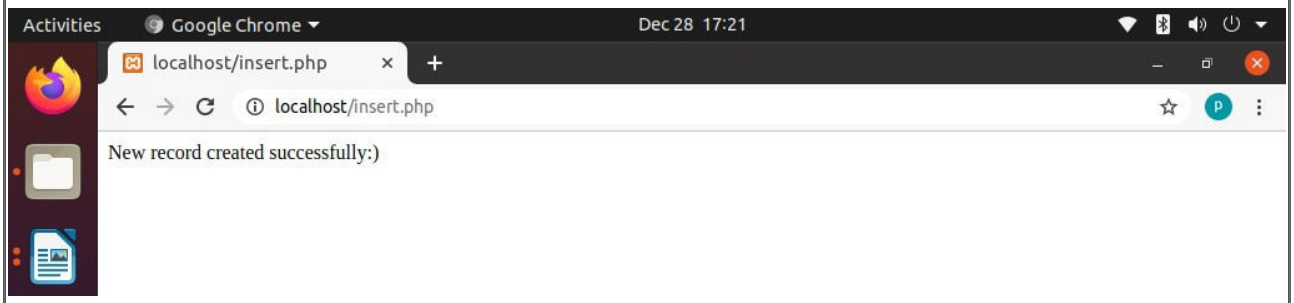
insert.php:

```
<?php
$servername="localhost";
$username="root";
$password="";
$database_name="Test_DB";
$roll=$_POST['roll'];
$name=$_POST['name'];
$branch=$_POST['branch'];
$age=$_POST['age'];
$email=$_POST['email'];
$phone=$_POST['phone'];
$conn = new mysqli($servername, $username, $password,
$database_name);VARDHAMAN COLLEGE OF ENGINEERING
Autonomous, Shamshabad-501218.
if ($conn->connect_error)
{
die("Connection failed: " . $conn->connect_error);
}
$sql = "INSERT INTO Student (roll,name,branch,age,email,phone)
VALUES ('$roll','$name','$branch','$age','$email','$phone')";
if ($conn->query($sql) === TRUE)
{
```

```
echo "New record created successfully:)";
}
else
{
echo "Error: " . $sql . "<br>" . $conn->error;
}
$conn->close();
?>
```

Outputs:





EXPERIMENT-07

7a) Write a PHP program to upload file into web server.

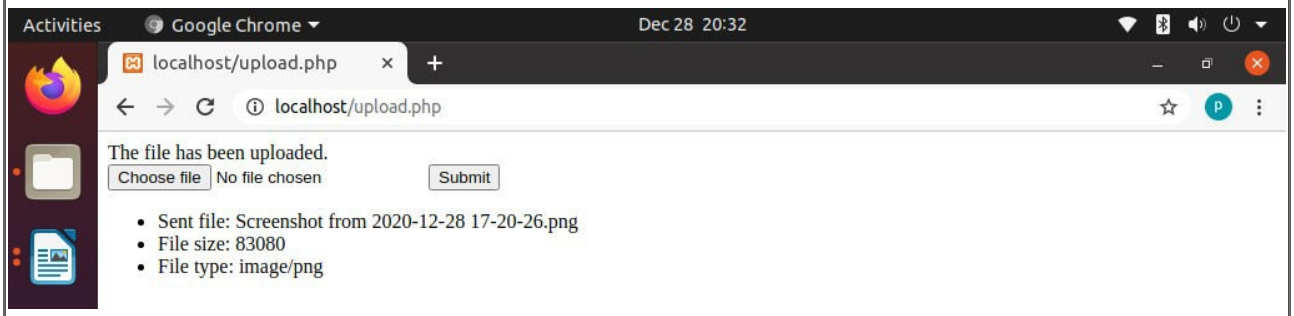
Code:

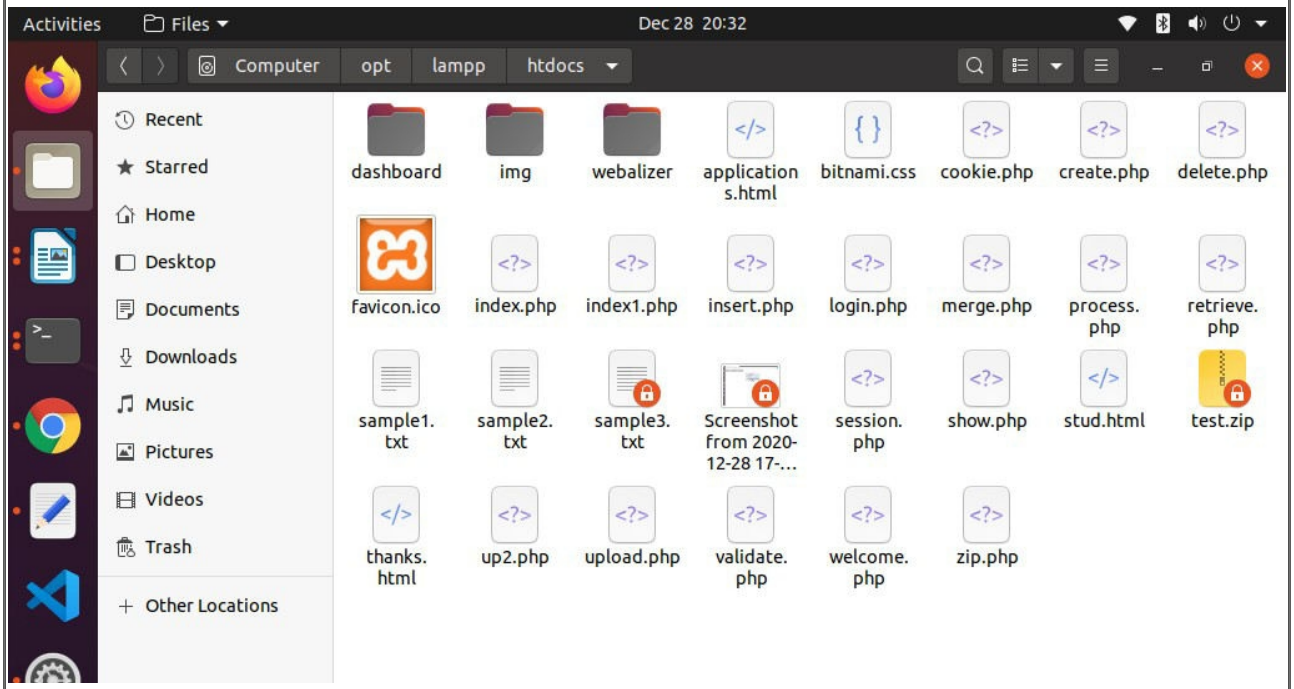
Upload.php:

```
<?php
if(isset($_FILES['image']))
{
$errors= array();
$file_name = $_FILES['image']['name'];
$file_size =$_FILES['image']['size'];
$file_tmp =$_FILES['image']['tmp_name'];
$file_type=$_FILES['image']['type'];
$file_ext=strtolower(end(explode('.',$_FILES['image']['name'])));
$extensions= array("jpeg","jpg","png");
if(in_array($file_ext,$extensions)=== false)
{
$errors[]="extension not allowed, please choose a JPEG or PNG file.";
}
if($file_size > 2097152)
{
$errors[]='File size must be excately 2 MB';
}
if(empty($errors)==true)
{
if (move_uploaded_file($file_tmp,$file_name))
{
echo "\nThe file has been uploaded.";
}
else
{
echo "\nSorry, there was an error uploading your file.";
}
}
else
{
print_r($errors);
}
}
?>
<html>
<body>
<form action="" method="POST" enctype="multipart/form-data">
<input type="file" name="image" />
```

```
<input type="submit"/>
</form>
<ul>
<li>Sent file: <?php echo $_FILES['image']['name']; ?>
<li>File size: <?php echo $_FILES['image']['size']; ?>
<li>File type: <?php echo $_FILES['image']['type'] ?>
</ul>
</body>
</html>
```

Outputs:





7b) Write a PHP program to upload image into database.

Code:

image.php:

```
<html>
<head>
</head>
<body>
<form action="up.php" method="POST" enctype="multipart/form-data">
<input type="file" name="uploadfile" />
<input type="submit" name="upload"/>
</form>
<a href="disp.php">Display Image</a>
<div>
</body>
</html>
```

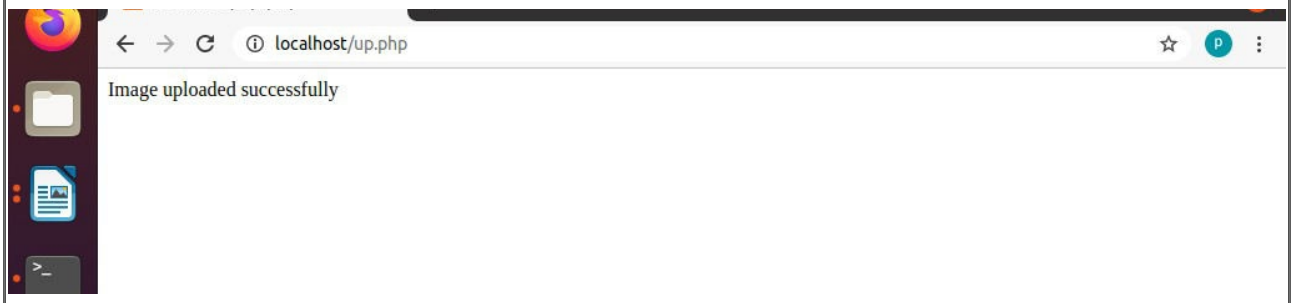
up.php:

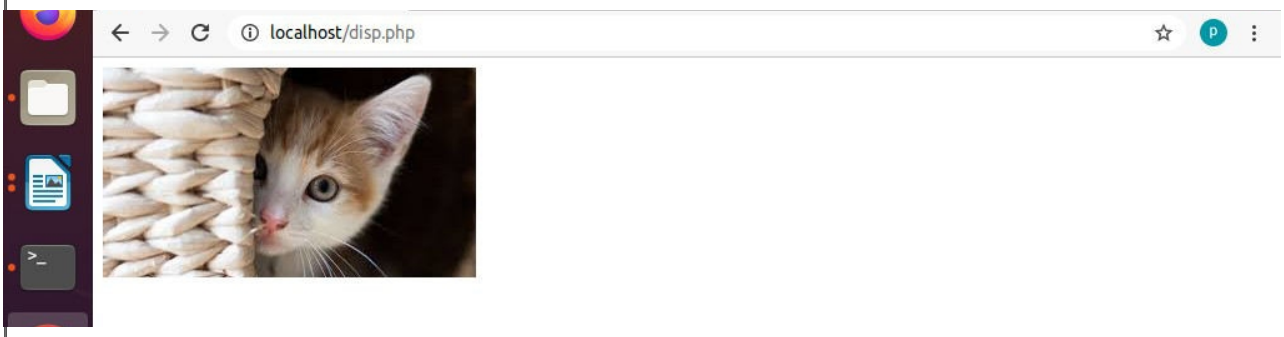
```
<?php
error_reporting(0);
?>
<?php
$msg = "";
if (isset($_POST['upload']))
{
$filename = $_FILES["uploadfile"]["name"];
$tempname = $_FILES["uploadfile"]["tmp_name"];
$db = mysqli_connect("localhost", "root", "", "Test_DB");
if ($db->connect_error)
{
die("Connection failed: " . $conn->connect_error);
}
$sql = "INSERT INTO Images (image) VALUES ('$filename')";
mysqli_query($db, $sql);
if (move_uploaded_file($tempname, $filename))
{
$msg = "Image uploaded successfully";
}
else
{
$msg ="Failed to upload image";VARDHAMAN COLLEGE OF ENGINEERING
Autonomous, Shamshabad-501218.
}
echo $msg;
}
?>
```

disp.php:

```
<?php
error_reporting(0);
?>
<?php
$db = mysqli_connect("localhost", "root", "", "Test_DB");
if ($db->connect_error)
{
die("Connection failed: " . $conn->connect_error);
}
$sql = "select * from Images";
$result=mysqli_query($db, $sql);
while($row=mysqli_fetch_array($result))
{
echo "<div> <img src='".$row[1]."'></div>";
}
?>
```

Outputs:





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EXPERIMENT-08

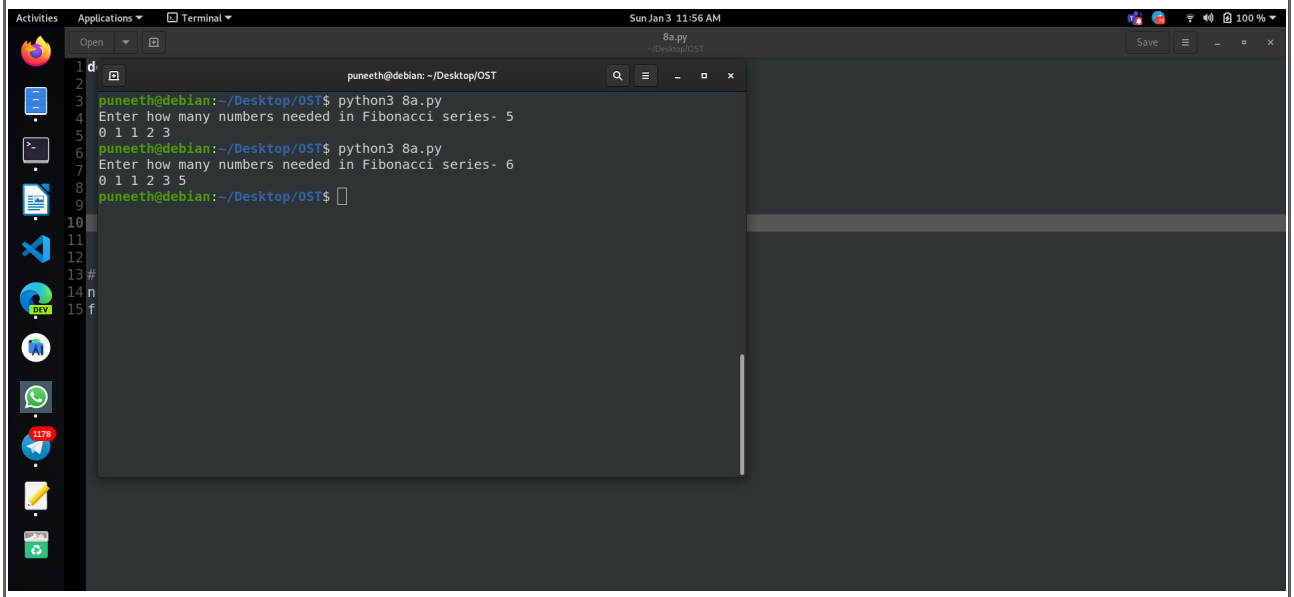
8a)Write a Program to print the Fibonacci sequence using python.

Code:

```
def fibonacci(num):
    num1 = 0
    num2 = 1
    series = 0
    for i in range(num):
        print(series, end=' ');
        num1 = num2;
        num2 = series;
        series = num1 + num2;
    print('')


# running function after takking user input
num = int(input('Enter how many numbers needed in Fibonacci series- '))
fibonacci(num)
```

Output:

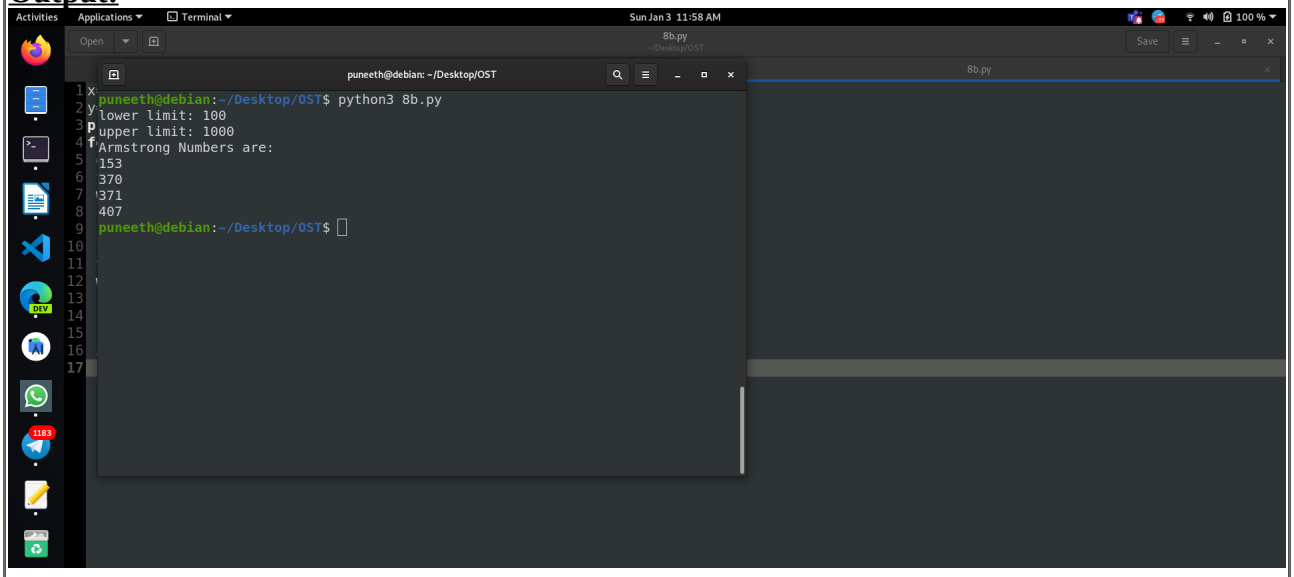


8b)Write a Program to display the Armstrong numbers between the specified ranges.

Code:

```
x=int(input("lower limit: "))
y=int(input("upper limit: "))
print("Armstrong Numbers are: ")
for Number in range(x,y):
 digits=0
 temp=Number
 while temp>0: # no of digits
  digits=digits+1
  temp=temp//10
 sum=0
 temp=Number
 while temp>0: # calculate armstrong number
  last_digit=temp%10
  sum=sum+(last_digit**digits)
  temp=temp//10
 if Number == sum:
    print(Number)
```

Output:



8c) Write a Program to perform various operations on Tuples and Dictionaries .

Code:

```
my_tuple = ('p','e','r','m','i','t')
print(my_tuple[0])
print(my_tuple[5])
n_tuple = ("mouse", [8, 4, 6], (1, 2, 3))
print(n_tuple[0][3])
print(n_tuple[1][1])
del my_tuple
print("Dictionary Operations:")
squares = {1:1, 2:4, 3:9, 4:16, 5:25}
print(squares.pop(4))
print(squares)
print(squares.popitem())
print(squares)
#del squares[5]
print(squares)
squares.clear()
print(squares)
del squares
```

Output:

8d) Write a program to multiply two matrices using python.

Code:

```
X = [[12,7,3],
    [4 ,5,6],
    [7 ,8,9]]
# 3x4 matrix
Y = [[5,8,1,2],
    [6,7,3,0],
    [4,5,9,1]]
# result is 3x4
result = [[0,0,0,0],
         [0,0,0,0],
         [0,0,0,0]]

# iterate through rows of X
for i in range(len(X)):
   # iterate through columns of Y
   for j in range(len(Y[0])):
       # iterate through rows of Y
       for k in range(len(Y)):
           result[i][j] += X[i][k] * Y[k][j]
print("X = ",end = '')
for r in X:
   print(r)
print('')
print("Y = ",end = '')
for r in Y:
   print(r)
print('')
print("Result = ",end = '')
for r in result:
   print(r)
```

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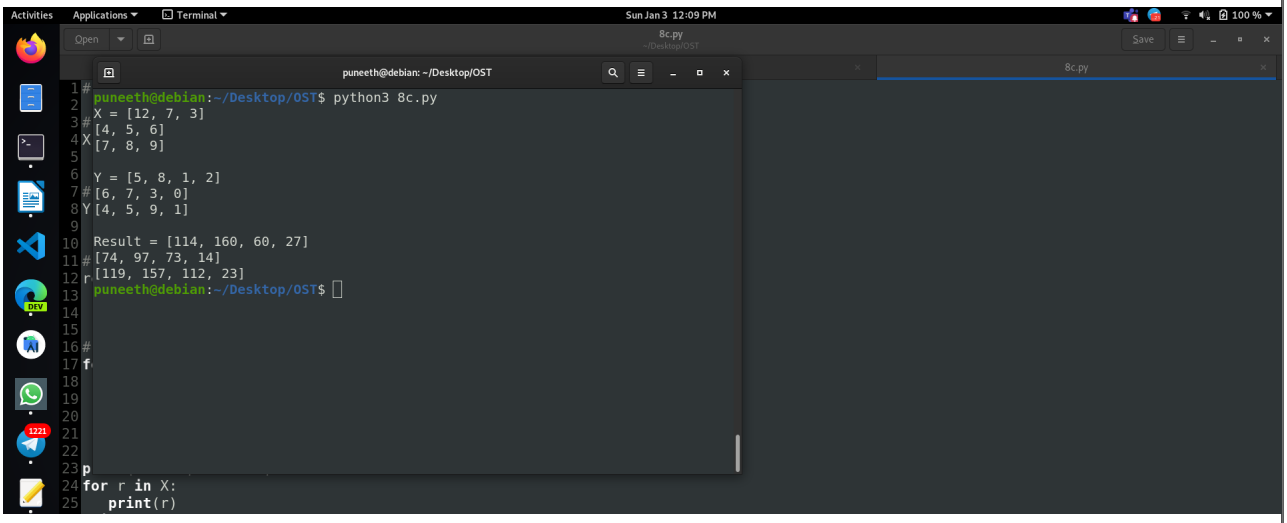
Output:



EXPERIMENT-09

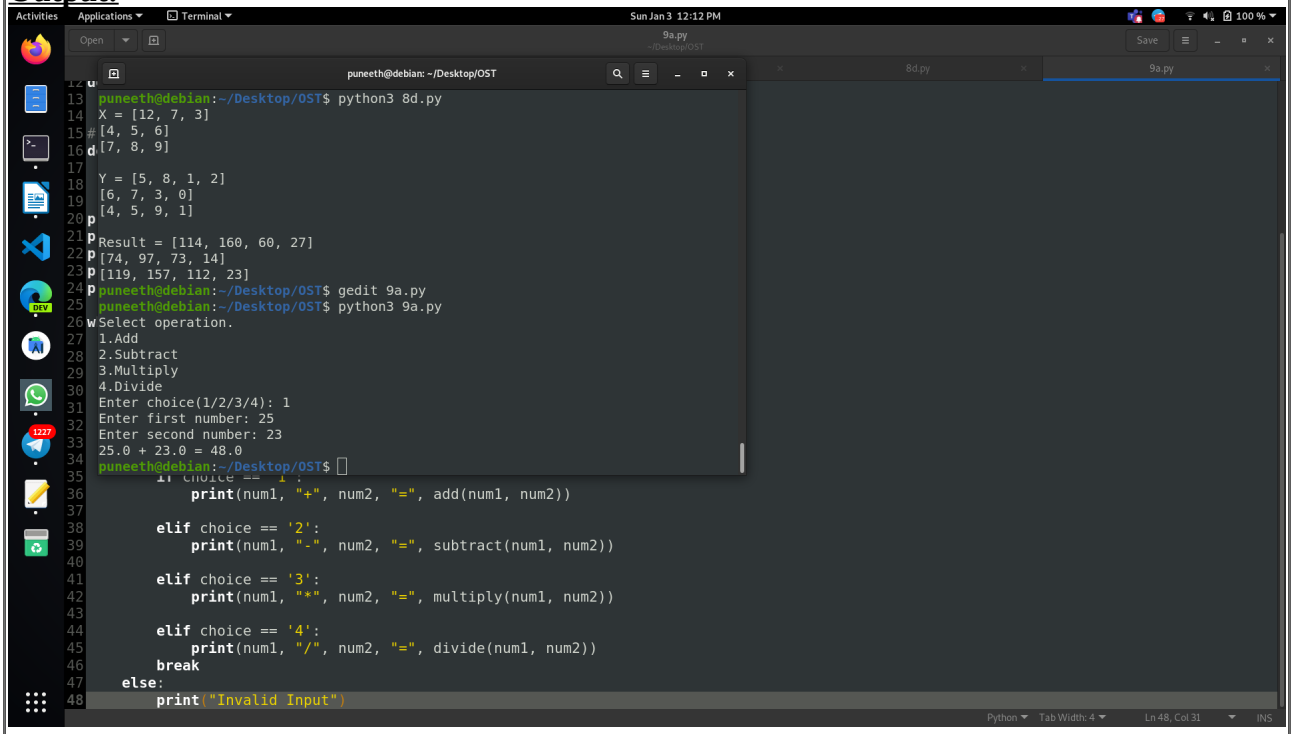
9a) Write a Program to make a simple calculator using python.

Code:

```
def add(x, y):
    return x + y

# This function subtracts two numbers
def subtract(x, y):
    return x - y

# This function multiplies two numbers
def multiply(x, y):
    return x * y

# This function divides two numbers
def divide(x, y):
    return x / y


print("Select operation.")
print("1.Add")
print("2.Subtract")
print("3.Multiply")
print("4.Divide")

while True:
    # Take input from the user
    choice = input("Enter choice(1/2/3/4): ")

    # Check if choice is one of the four options
    if choice in ('1', '2', '3', '4'):
        num1 = float(input("Enter first number: "))
        num2 = float(input("Enter second number: "))

        if choice == '1':
            print(num1, "+", num2, "=", add(num1, num2))

        elif choice == '2':
            print(num1, "-", num2, "=", subtract(num1, num2))

        elif choice == '3':
            print(num1, "*", num2, "=", multiply(num1, num2))
```

```
    elif choice == '4':
       print(num1, "/", num2, "=", divide(num1, num2))
    break
else:
    print("Invalid Input")
```

Output:

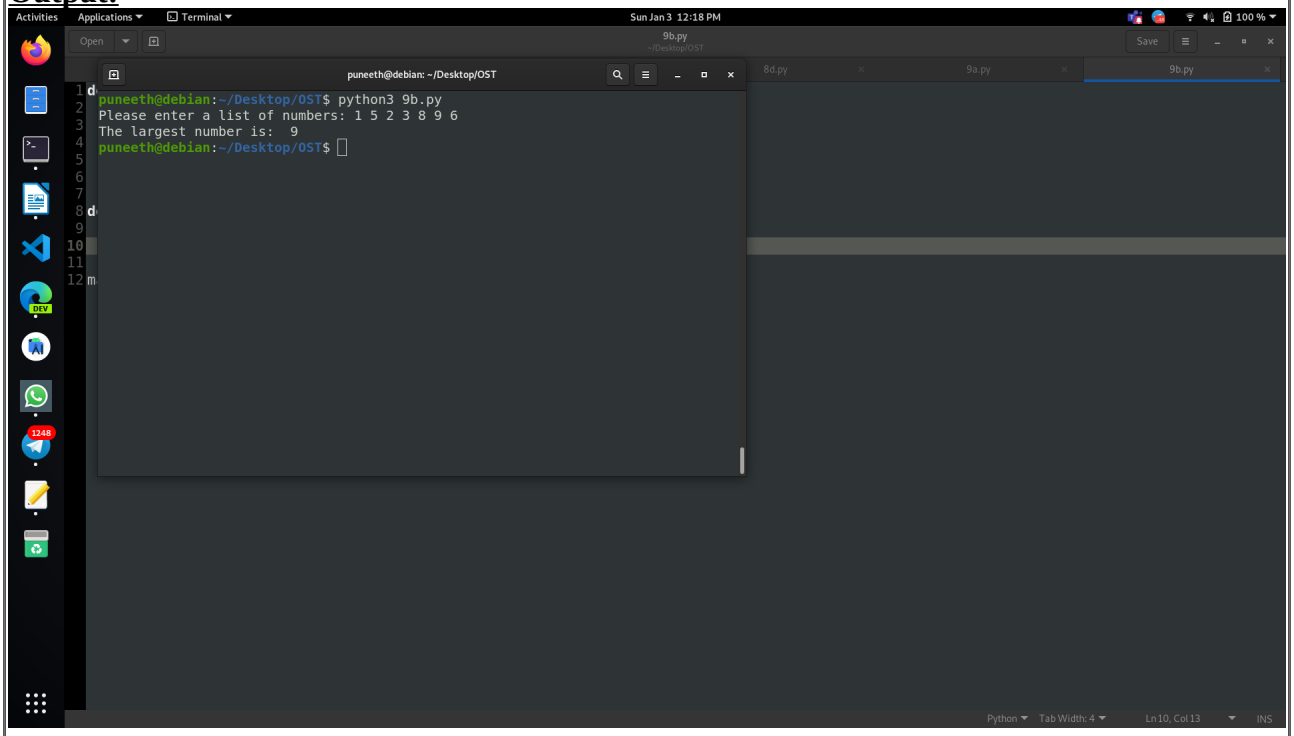


9b)Write a program to find maximum element in the list using recursive functions.

Code:

```
def Max(a):
    if len(a) == 1:
        return a[0]
    else:
        m = Max(a[1:])
        return m if m > a[0] else a[0]

def main():
    a = input("Please enter a list of numbers: ").split(" ")
    print("The largest number is: ", Max(a))

main()
```

Output:

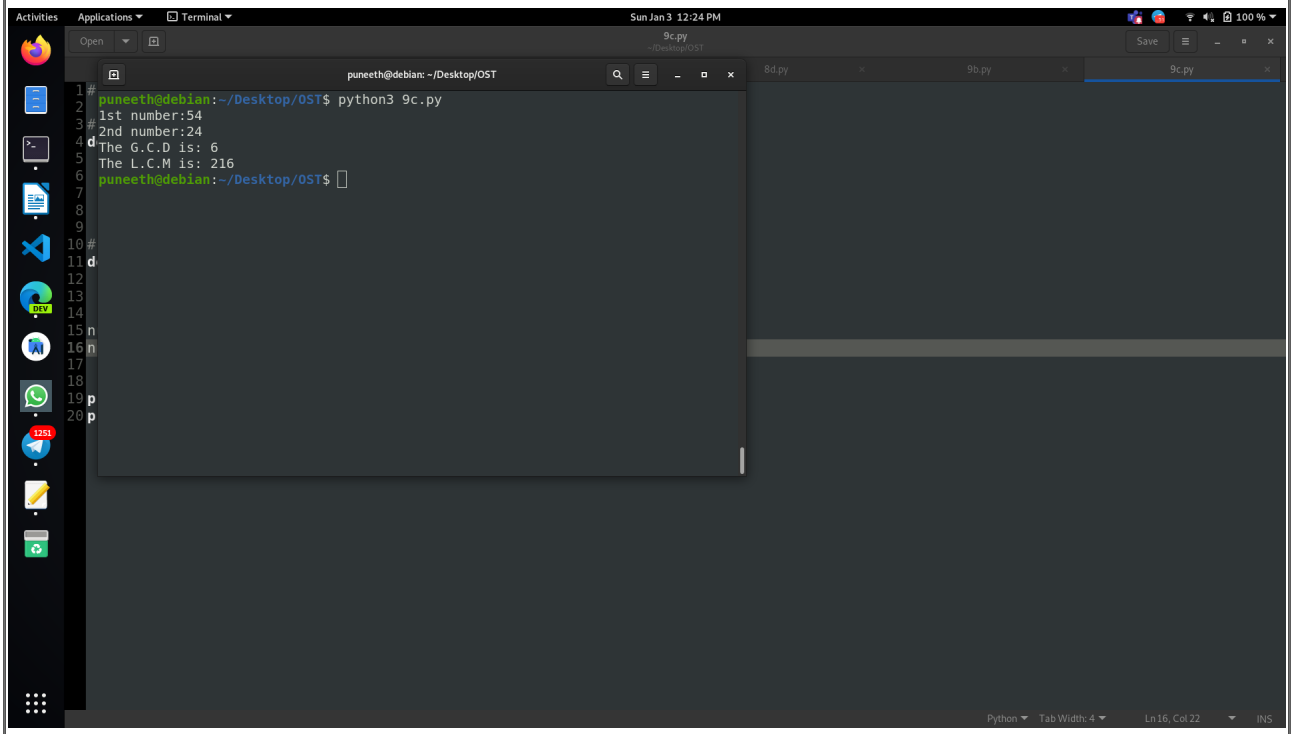


9c)Write a program to find GCD and LCM of two numbers using functions.

Code:

```
def compute_gcd(x, y):

   while(y):
       x, y = y, x % y
   return x

# This function computes LCM
def compute_lcm(x, y):
   lcm = (x*y)//compute_gcd(x,y)
   return lcm

num1 = int(input("1st number:"))
num2 = int(input("2nd number:"))


print("The G.C.D is:", compute_gcd(num1, num2))
print("The L.C.M is:", compute_lcm(num1, num2))
```

Output:



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EXPERIMENT-10

10a) Write a Program to recursively calculate the sum of natural numbers using python.

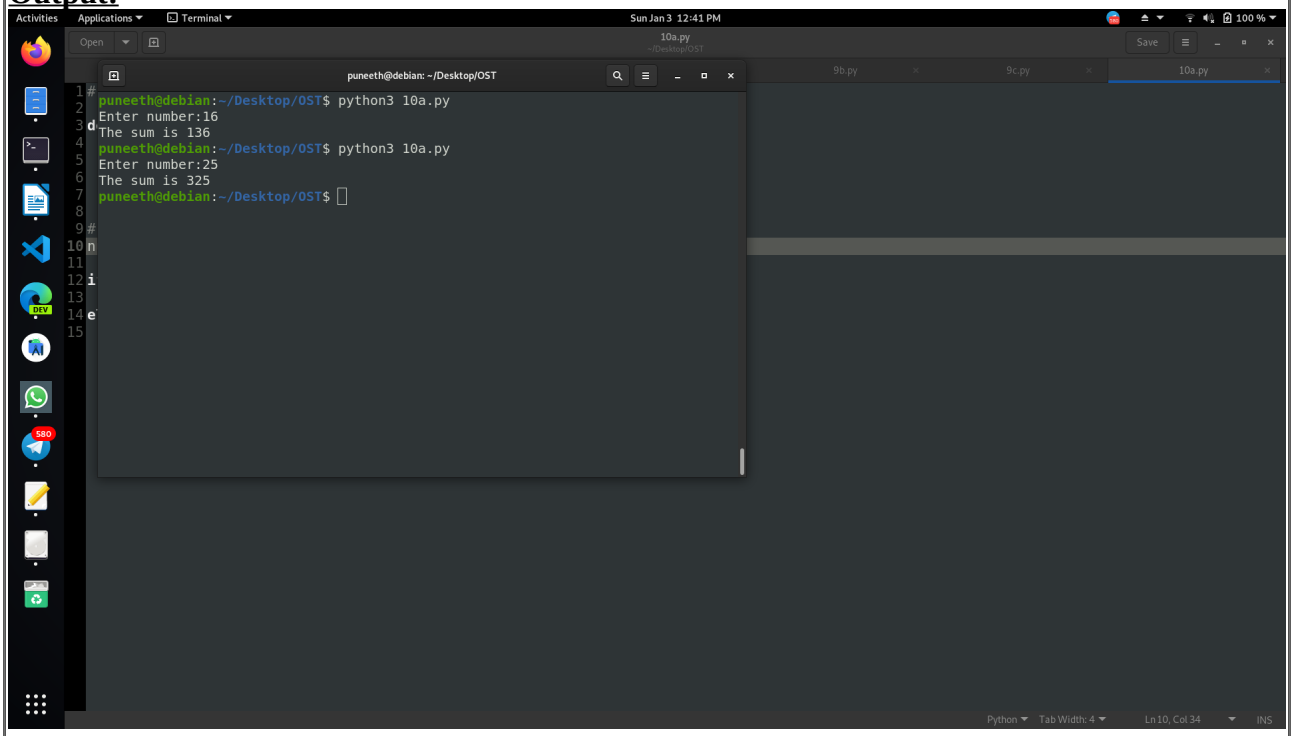
Code:

```
def recur_sum(n):
   if n <= 1:
      return n
   else:
      return n + recur_sum(n-1)

# change this value for a different result
num = int(input("Enter number:"))

if num < 0:
   print("Enter a positive number")
else:
   print("The sum is",recur_sum(num))
```

Output:

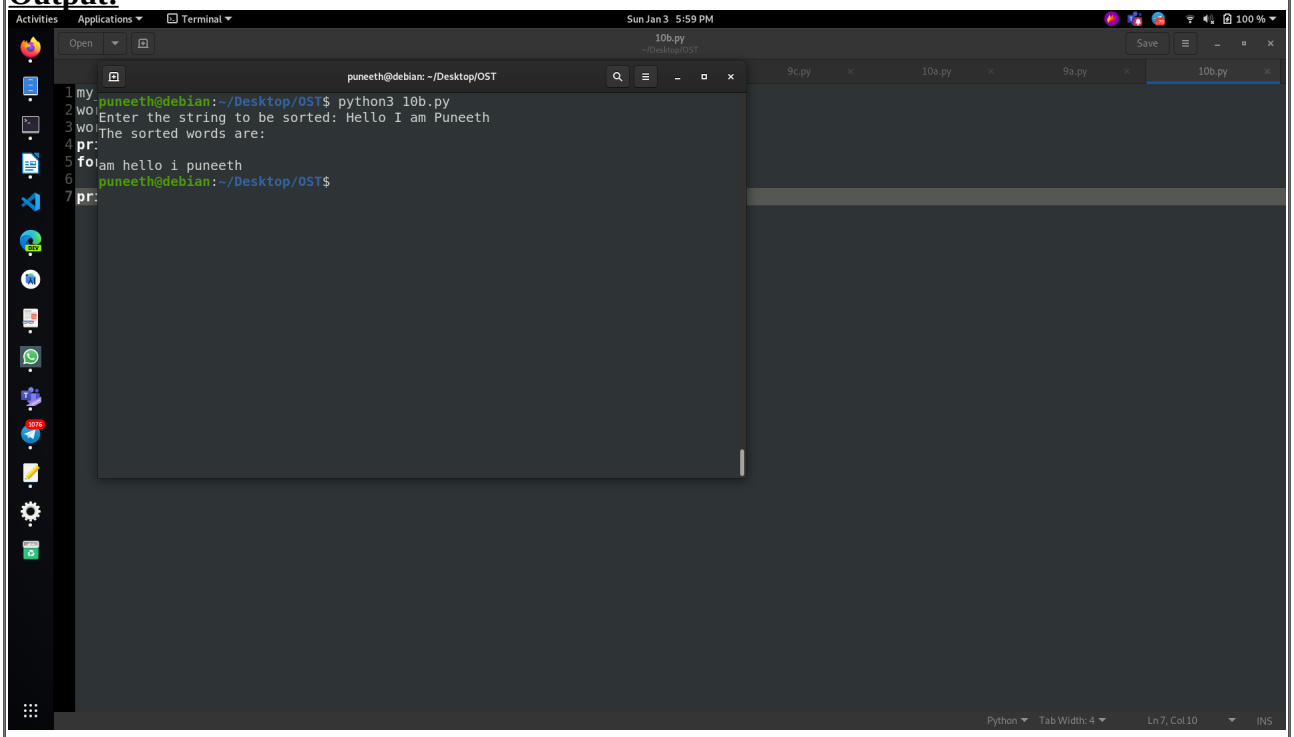


10b)Write a Program to sort words in alphabetic order using python.

Code:

```
my_str= input("Enter the string to be sorted: ")
words = [word.lower() for word in my_str.split()]
words.sort()
print("The sorted words are:\n")
for word in words:
        print(word,end=" ")
print("")
```

Output:



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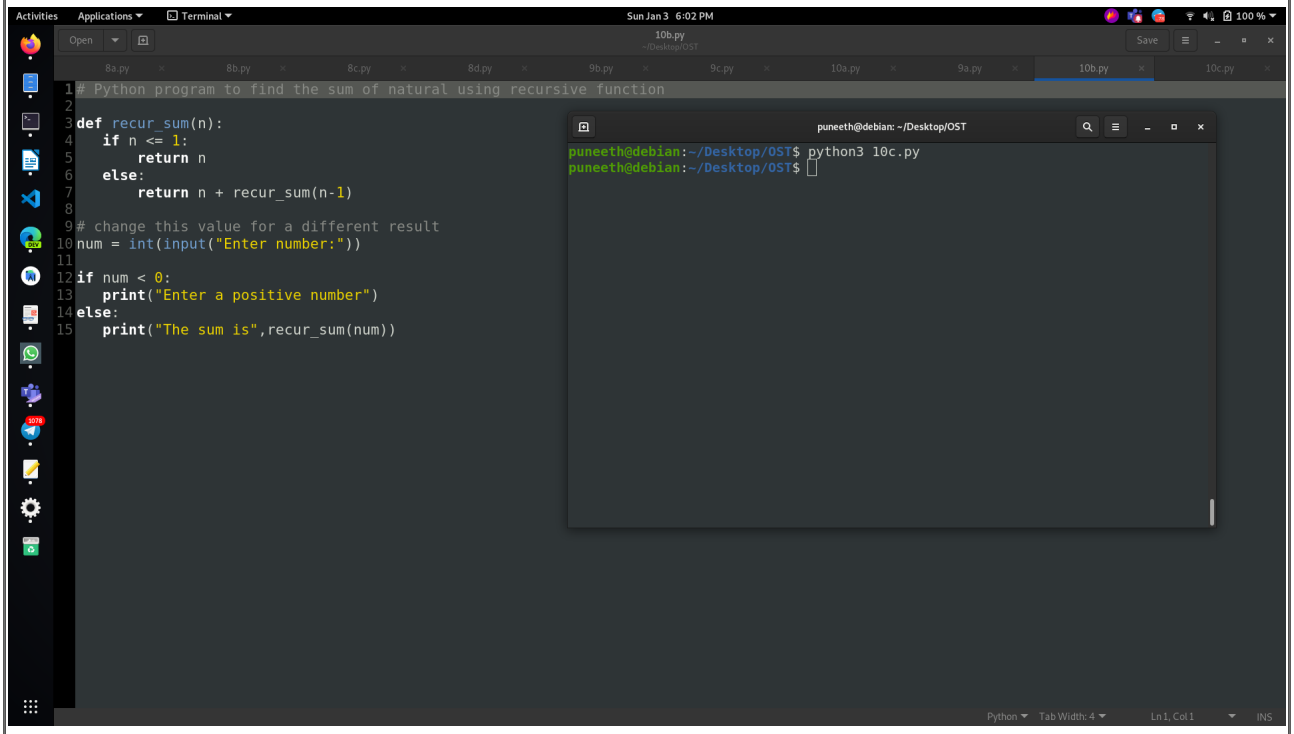
10c)Write a program to copy the contents from one file to another file.

Code:

```
with open("10a.py") as f:
        with open("10b.py", "w") as f1:
                for line in f:
                        f1.write(line)
```

Output:



EXPERIMENT-11

11a)Write a Program to handle Exceptions using python.

Code:

```
#!/usr/bin/python
try:
        fh = open("testfile", "r")
        fh.write("This is my test file for exception handling!!")
except IOError:
        print("Error: can\'t find file or read data")
else:
        print("Written content in the file successfully")
# define Python user-defined exceptions
class Error(Exception):
        pass
class ValueTooSmallError(Error):
        pass
class ValueTooLargeError(Error):
        pass
# our main program
# user guesses a number until he/she gets it right
# you need to guess this number
number = 10
while True:
        try:
                i_num = int(input("Enter a number: "))
                if i_num< number:
                        raise ValueTooSmallError
                elif i_num> number:
                        raise "ValueTooLargeErrorVARDHAMAN COLLEGE OF ENGINEERING
Autonomous, Shamshabad-501218."
                break
        except ValueTooSmallError:
                print("This value is too small, try again!")
                print()
        except ValueTooLargeError:
                print("This value is too large, try again!")
                print()
        else:
                print("Congratulations! You guessed it correctly.")
                break
```

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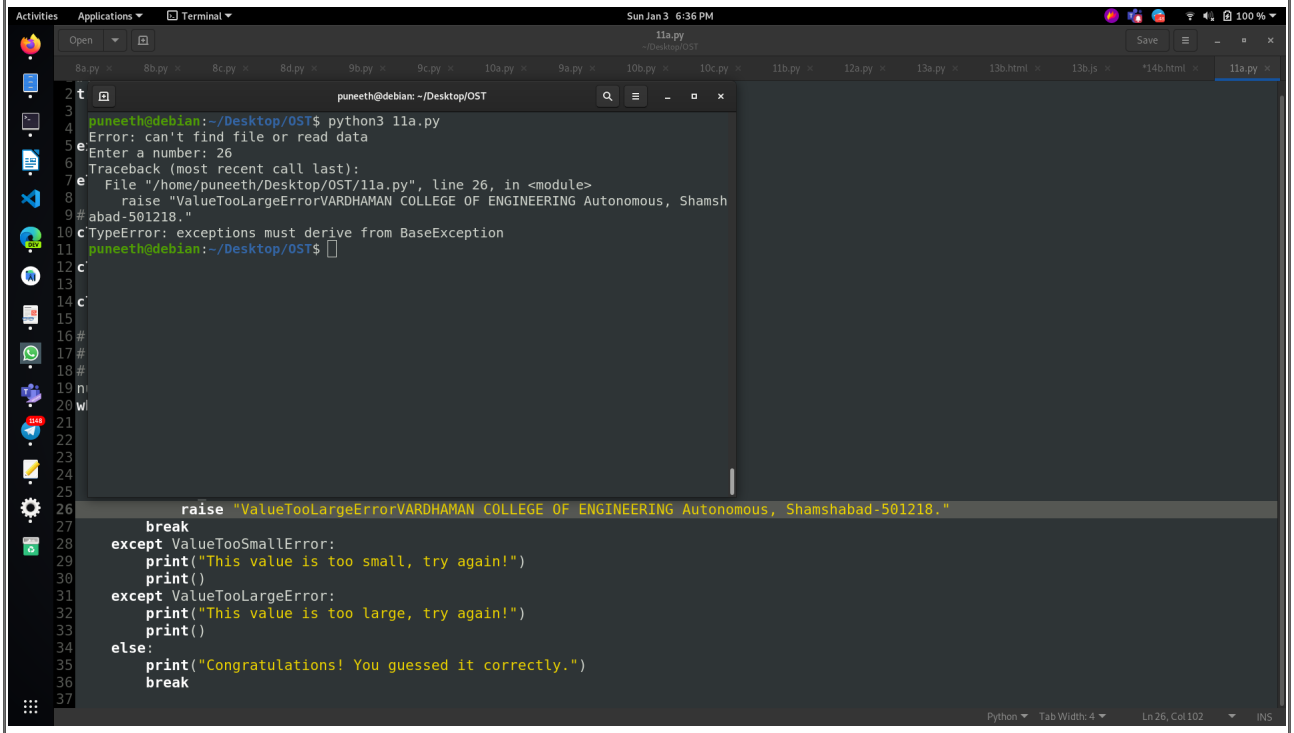
Output:



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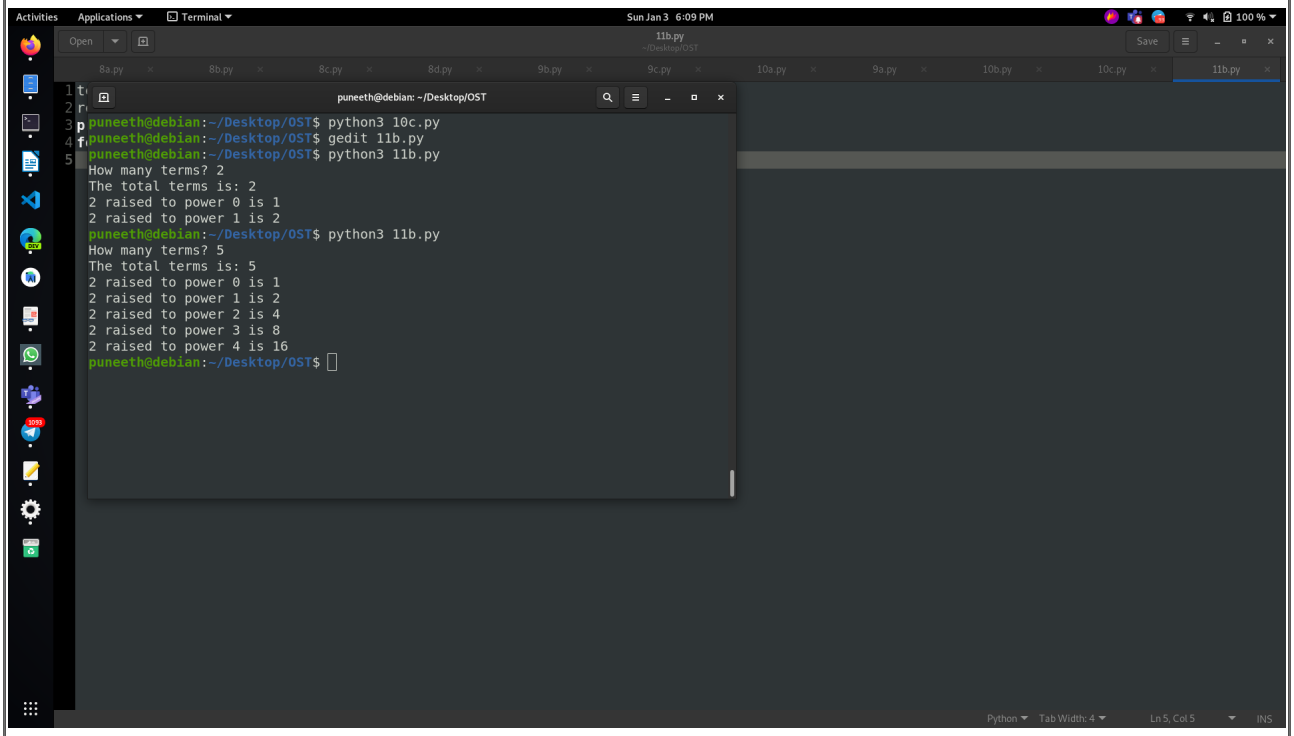
11b)Write a Program to display Powers of 2 Using Anonymous Function using python.

Code:

```
terms = int(input("How many terms? "))
result = list(map(lambda x: 2 ** x, range(terms)))
print("The total terms is:",terms)
for i in range(terms):
        print("2 raised to power",i,"is",result[i])
```

Output:



EXPERIMENT-12

12a) Write a Program to create a form controls using tkinter.

Code:

```
ffrom tkinter import *
from tkinter import messagebox
root = Tk()
root.geometry("500x500")
root.title('Registration form')
label_0 =Label(root,text="Registration form", width=20,font=("bold",20))
label_0.place(x=90,y=60)
label_1 =Label(root,text="FullName", width=20,font=("bold",10))
label_1.place(x=80,y=130)
entry_1=Entry(root)
entry_1.place(x=240,y=130)
label_3 =Label(root,text="Email", width=20,font=("bold",10))
label_3.place(x=68,y=180)
entry_3=Entry(root)
entry_3.place(x=240,y=180)
label_4 =Label(root,text="Gender", width=20,font=("bold",10))
label_4.place(x=70,y=230)
var=IntVar()
Radiobutton(root,text="Male",padx= 5, variable= var, value=1).place(x=235,y=230)
Radiobutton(root,text="Female",padx= 20, variable= var,
value=2).place(x=290,y=230)
label_5=Label(root,text="Country",width=20,font=("bold",10))
label_5.place(x=70,y=280)
list_of_country=[ 'India' ,'US' , 'UK' ,'Germany' ,'Austria']
c=StringVar()
droplist=OptionMenu(root,c, *list_of_country)
droplist.config(width=15)
c.set('Select your Country')
droplist.place(x=240,y=280)
label_6=Label(root,text="Language",width=20,font=('bold',10))
label_6.place(x=75,y=330)
var1=IntVar()
Checkbutton(root,text="English", variable=var1).place(x=230,y=330)
var2=IntVar()
Checkbutton(root,text="German", variable=var2).place(x=290,y=330)
def Button1():
        a=entry_1.get()
        messagebox.showinfo("Greeting","Hello "+a)
        Button(root, text='Submit' ,
        width=20,bg="black",fg='white',command=Button1).place(x=180,y=380)
root.mainloop()
```

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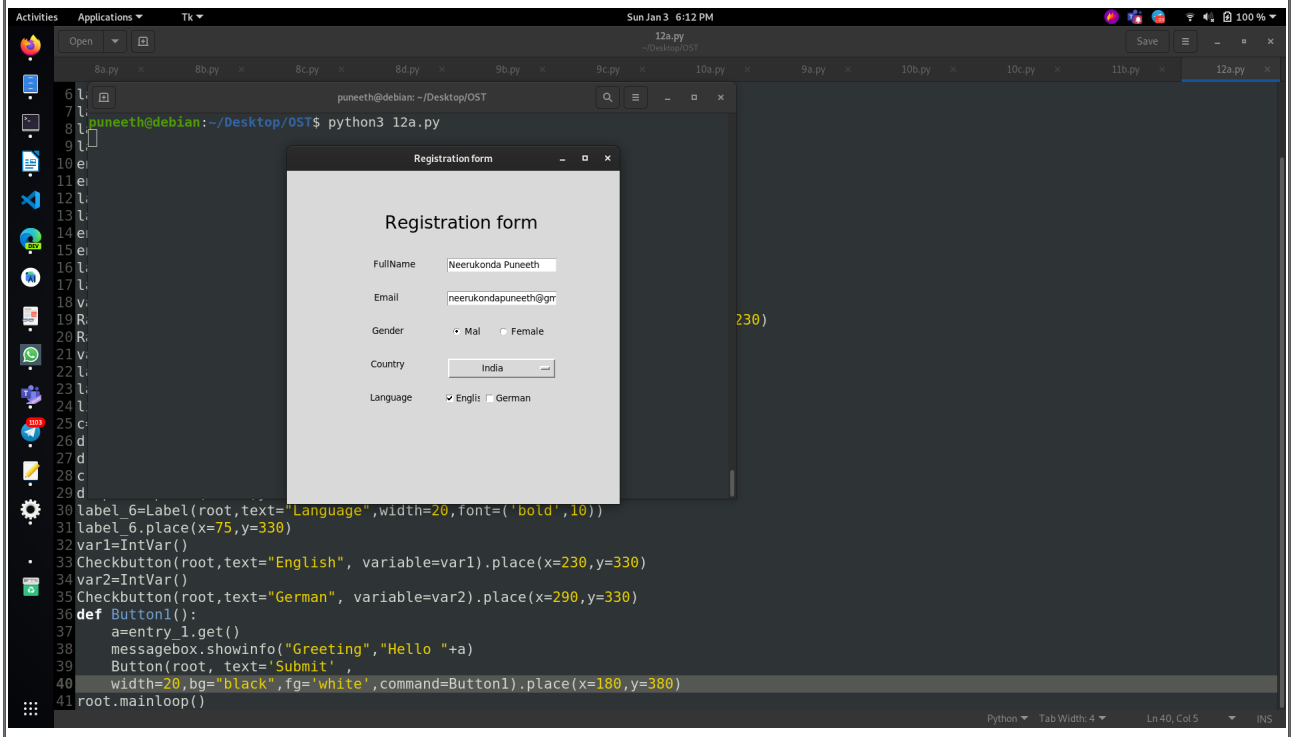
Output:



12b) Write a program to access Mysql DB using Python.

Code:

```
import MySQLdb
db = MySQLdb.connect("localhost","root","","526db" )

# prepare a cursor object using cursor() method
cursor = db.cursor()

# Prepare SQL query to INSERT a record into the database.
sql = """INSERT INTO student(id,
        name, age)
        VALUES (500,'xyz',20)"""
try:
   # Execute the SQL command
   cursor.execute(sql)
   # Commit your changes in the database
   db.commit()
except:
   # Rollback in case there is any error
   db.rollback()

# disconnect from server



#insert
sql1 = "SELECT * FROM student \
      WHERE age > 19"
try:
   # Execute the SQL command
   cursor.execute(sql1)
   # Fetch all the rows in a list of lists.
   results = cursor.fetchall()
   for row in results:
      id = row[0]
      name=row[1]
      age = row[2]
      # Now print fetched result
      print (id,name,age)

except:
   print ("Error: unable to fecth data")

# disconnect from server
db.close()
```

Output:

	id	name	age
Edit Copy Delete	8	gowtham	20
Edit Copy Delete	51	uday	20
Edit Copy Delete	500	xyz	20
Edit Copy Delete	508	gowtham	20

```
  File "C:\Users\HP\.spyder-py3\untitled1.py", line 50, in <module>
    db.close()

OperationalError: (2006, '')


In [16]: runfile('C:/Users/HP/.spyder-py3/untitled1.py', wdir='C:/Users/HP/.spyder-py3')

In [17]: runfile('C:/Users/HP/.spyder-py3/untitled1.py', wdir='C:/Users/HP/.spyder-py3')

In [18]: runfile('C:/Users/HP/.spyder-py3/untitled1.py', wdir='C:/Users/HP/.spyder-py3')
8 gowtham 20
51 uday 20
500 xyz 20
508 gowtham 20

In [19]:
```

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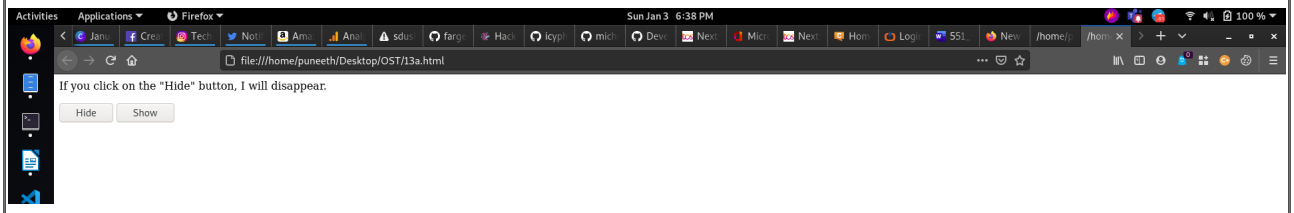
EXPERIMENT-13

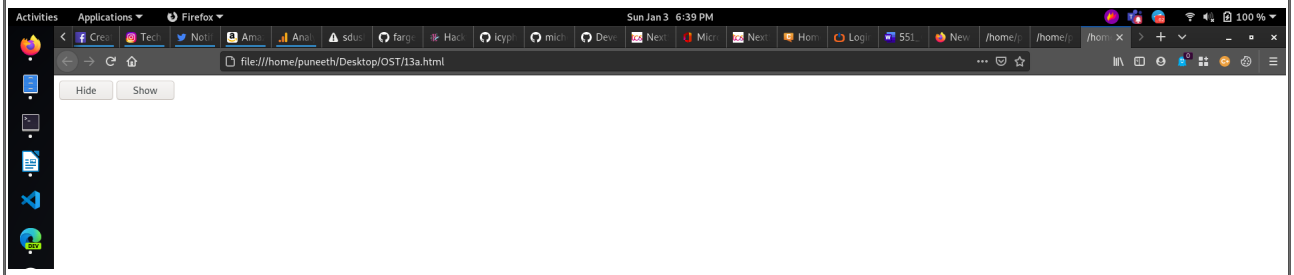
13a)Write a JQuery Script to implement hide() and show()effects.

Code:

```
<html>
<head>
<script>
$(document).ready(function(){
$("#hide").click(function(){
$("p").hide();
});
$("#show").click(function(){
$("p").show();
});
});
</script>
</head>
<body>
<p>If you click on the "Hide" button, I will disappear.</p>
<button id="hide">Hide</button>
<button id="show">Show</button>
</body>
</html>
```

Output:





13b) Write a JQuery Script to apply various sliding effects

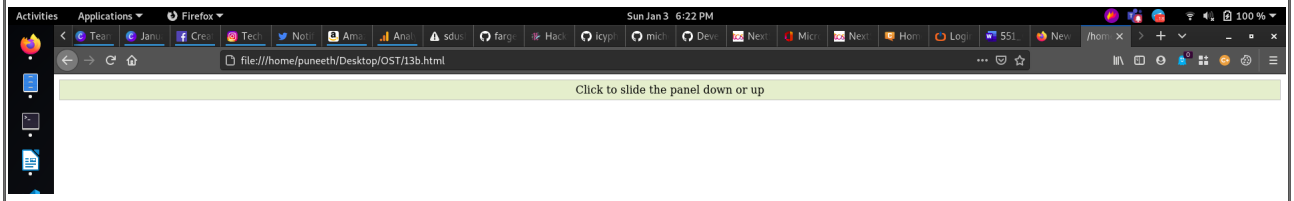
Code:

```
<html>
<head>
<style>
#panel, #flip {
padding: 5px;
text-align: center;
background-color: #e5eecc;
border: solid 1px #c3c3c3;
}
#panel {
padding: 50px;
display: none;
}
</style>
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></
script>
<script src="13b.js"></script>
</head>
<body>
<div id="flip">Click to slide the panel down or up</div>
<div id="panel">Hello world!</div>
</body>
</html>
```

13b.js:

```
$(document).ready(function(){
$("#flip").click(function(){
$("#panel").slideToggle("slow");
});
});
```

Output:



EXPERIMENT-14

14a) Write a Jquery script to animate the given image when ever user clicks on a button.

Code:

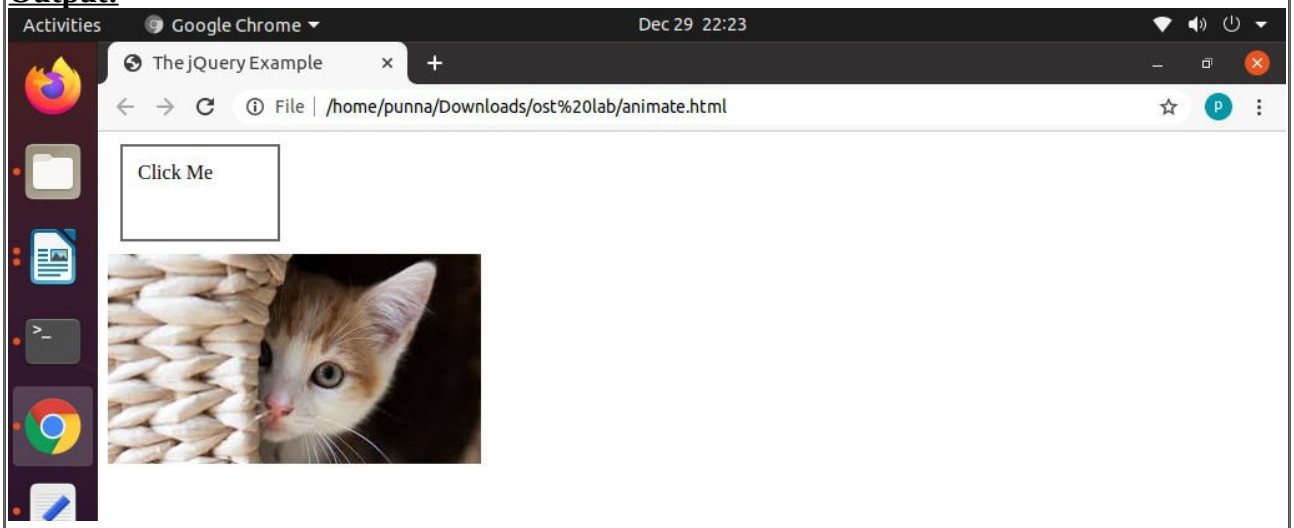
animate.html:

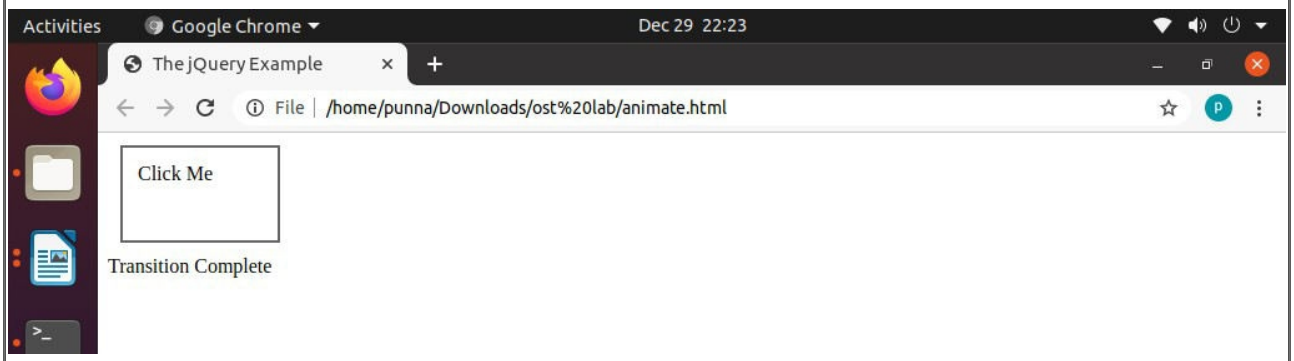
```
<html>
<head>
<title>The jQuery Example</title>
<style>
.clickme{
margin:10px;
padding:12px;
border:2px solid #666;
width:100px;
height:50px;
}
</style>
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></
script>
<script src="animate.js"></script>
</head>
<body>
<div class = "content">
<div class = "clickme">Click Me</div>
<div class = "target">
<img src = "cats.jpeg" alt = "CAT" />
</div>
<div class = "log"></div>
</div>
</body>
</html>
```

animate.js:

```
$(document).ready(function() {
$(".clickme").click(function(event){
$(".target").toggle('slow', function(){
$(".log").text('Transition Complete');
});
});
});
```

Output:


Activities
Google Chrome
Dec 29 22:23
The jQuery Example
File | /home/punna/Downloads/ost%20lab/animate.html
Click Me

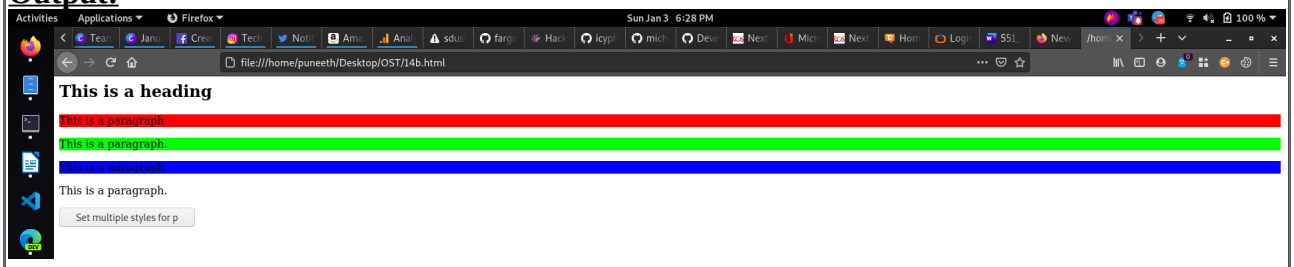

Activities
Google Chrome
Dec 29 22:23
The jQuery Example
File | /home/punna/Downloads/ost%20lab/animate.html
Click Me
Transition Complete

14b) Write a JQuery script to apply various CSS effects.

Code:

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
$("button").click(function(){
$("p").css({"background-color": "yellow", "font-size": "200%"});
});
});
</script>
</head>
<body>
<h2>This is a heading</h2>
<p style="background-color:#ff0000">This is a paragraph.</p>
<p style="background-color:#00ff00">This is a paragraph.</p>
<p style="background-color:#0000ff">This is a paragraph.</p>
<p>This is a paragraph.</p>
<button>Set multiple styles for p</button>
</body>
</html>
```

Output:

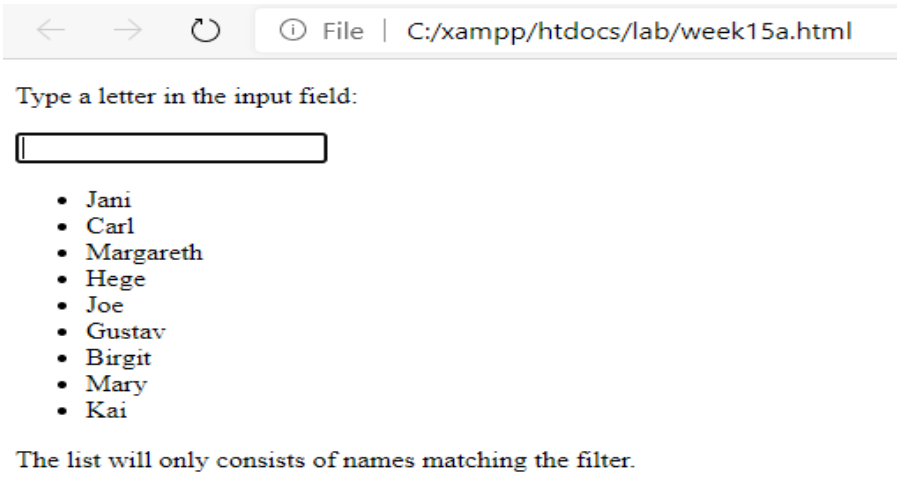


EXPERIMENT-15

15a) Write a program to apply various filters to transform data.

Code:

```
<!DOCTYPE html>
<html>
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.4/angular.min.js"></script>
<body>

<div ng-app="myApp" ng-controller="namesCtrl">

<p>Type a letter in the input field:</p>

<p><input type="text" ng-model="test"></p>

<ul>
<li ng-repeat="x in names | filter:test">
   {{ x }}
</li>
</ul>

</div>

<script>
angular.module('myApp', []).controller('namesCtrl', function($scope) {
   $scope.names = [
      'Jani',
      'Carl',
      'Margareth',
      'Hege',
      'Joe',
      'Gustav',
      'Birgit',
      'Mary',
      'Kai'
   ];
});
</script>
<p>The list will only consists of names matching the filter.</p>
</body>
</html>
```


File | C:/xampp/htdocs/lab/week15a.html
Type a letter in the input field:
Jani
Carl
Margareth
Hege
Joe
Gustav
Birgit
Mary
Kai
The list will only consists of names matching the filter.

Output:

15b) Write a program to display data in tables in various forms

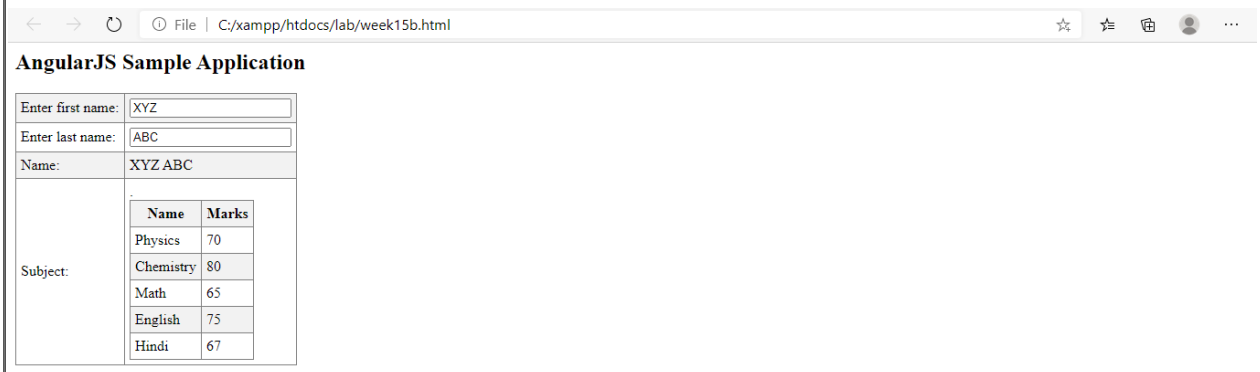
Code:

```
<html>
<head>
<title>Angular JS Table</title>
<script src = "https://ajax.googleapis.com/ajax/libs/angularjs/1.3.14/angular.min.js"></script>

<style>
	table, th , td {
	  border: 1px solid grey;
	  border-collapse: collapse;
	  padding: 5px;
	}

	table tr:nth-child(odd) {
	  background-color: #f2f2f2;
	}

	table tr:nth-child(even) {
	  background-color: #ffffff;
	}
</style>

</head>
<body>
<h2>AngularJS Sample Application</h2>
<div ng-app = "mainApp" ng-controller = "studentController">

<table border = "0">
<tr>
<td>Enter first name:</td>
<td><input type = "text" ng-model = "student.firstName"></td>
</tr>

<tr>
<td>Enter last name: </td>
<td>
<input type = "text" ng-model = "student.lastName">
</td>
</tr>

<tr>
<td>Name: </td>
<td>{{student.fullName()}}</td>
```

```
</tr>

<tr>
<td>Subject:</td>

<td>
<table>
<tr>
<th>Name</th>.
<th>Marks</th>
</tr>

<tr ng-repeat = "subject in student.subjects">
<td>{{ subject.name }}</td>
<td>{{ subject.marks }}</td>
</tr>

</table>
</td>

</tr>
</table>

</div>

<script>
var mainApp = angular.module("mainApp", []);

mainApp.controller('studentController', function($scope) {
          $scope.student = {
firstName: "Mahesh",
lastName: "Parashar",
            fees:500,

            subjects:[
              {name:'Physics',marks:70},
              {name:'Chemistry',marks:80},
              {name:'Math',marks:65},
              {name:'English',marks:75},
              {name:'Hindi',marks:67}
            ],

fullName: function() {
var studentObject;
```

```
studentObject = $scope.student;
                return studentObject.firstName + " " + studentObject.lastName;
            }
        };
    });
</script>

</body>
</html>
```

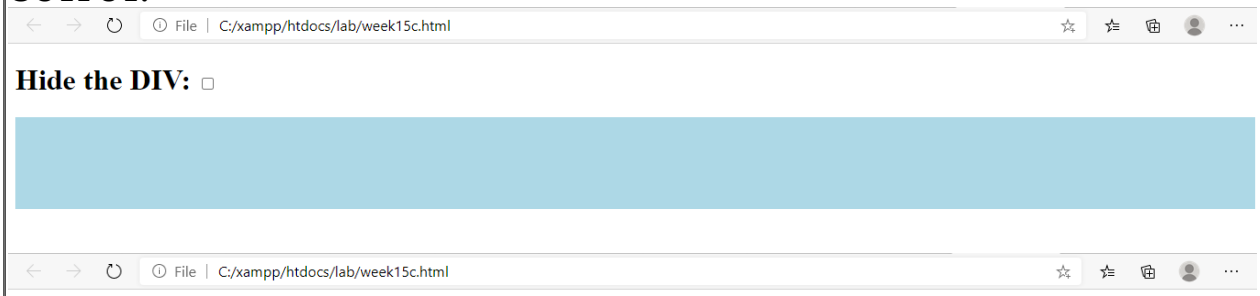
Output:



15c) Write a program to apply animations

```
<!DOCTYPE html>
<html>
<style>
div {
  transition: all linear 0.5s;
  background-color: lightblue;
  height: 100px;
  width: 100%;
  position: relative;
  top: 0;
  left: 0;
}

.ng-hide {
  height: 0;
  width: 0;
  background-color: transparent;
  top:-200px;
  left: 200px;
}

</style>
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.4/angular.min.js"></script>
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.4/angular-animate.js"></script>

<body ng-app="myApp">

<h1>Hide the DIV: <input type="checkbox" ng-model="myCheck"></h1>

<div ng-hide="myCheck"></div>

<script>
var app = angular.module('myApp', ['ngAnimate']);
</script>

</body>
</html>
```

OUTPUT:


File | C:/xampp/htdocs/lab/week15c.html
Hide the DIV:
File | C:/xampp/htdocs/lab/week15c.html
Hide the DIV: