1. Write a program to find factorial value of any number enroled by user. Using Javascript.

```
<html>
<head>
<script>
function show() {
var i, no, fact ;
fact = 1;
no = Number ( document.getElementById("num").value );
for(i = 1; i<= no; i++) {
  fact = fact * i;
document.getElementById("answer").value = fact;
</script>
</head>
<body>
Enter num : <input id = "num">
<button onclick = "show()">. factorial </button>
<input id = "answer">
</body>
</html>
```

OUTPUT :

Enter num : 5

Factorial 120

2> In a company an employee is paid as under. If his basic salary is less than Rs 1500, then HRA = 10% of basic salary and DA = 90% of basic salary. If his salary is either equal to or above Rs 1500, then HRA = Rs 500 & DA = 98% of basic salary. If the Employee's salary is input, write a program to find his gross salary. Using javascript Eventhandules.

PROGRAM:-

```
<html>
<head>
<script>
function show(){
 var no, ans;
no = Number(document.getElementById("salary").value);
if(no < 1500){
    ans = no + ((10/100)*no) + ((90/100)*no);
}else{
    ans = no + 500 + ((98/100)*no);
}document.getElementById("answer").value = ans;
}
</script>
</head>
 <body>
Enter salary : <input id="salary">
<button onclick="show()">Gross salary</button>
```

<input id="answer">
</body>
</html>

OUTPUT :-

Enter salary | 1203 |

| Gross salary | 2038 3.16 |
|---|---|

3. Write a program to take a character (c) as input & check whether the given character is a vowel or a consonant using java.

```
class Solution {
    public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
     character c = sc.next().charAt(0);
  if (c == 'A' || c=='E' || c == 'I' || c== 'O' || c == 'U' ) {
    System.out.println("vowel");
  } else {
    System.out.println("consonent");
    }
}}
```

OUTPUT 1:

Z

consonant

OUTPUT 2:

A

Vowel.

4. Describe in detail Multithreading concept illustrate with java code.

Multithreading in java allows concurrent execution of two or more parts of a program for maximum utilization of CPU. Each part of such program is called a thread. So threads are light weight process within a process.

PROGRAM :-

```
class MultiThreadingDemo extends Thread {
    public void run() {
    try {
    System.out.println("Thread" + Thread.currentThread().
                        getId() + " is running");
} catch (Exception e) {
    System.out.println("Exception is caught");
    }
}
public class MultiThread {
    public static void main(String[] args) {
        int n=4;
        for(int i=0; i<n; i++) {
    MultiThreadingDemo.object = new MultiThreading();
        object.start();
    }
}
}
```

OUTPUT :-

Thread 4 is remaining
Thread 5 is remaining
Thread 6 is remaining"
Thread 7 is remaining

5. Connect to the database using any of the JDBC drivers & Insert & display 2 records with bus ticket reservation information.

```
import java.sql.*;
public class solution {
    public static void main(String[] args) {
        Connection con = null;
        Statement stmt = null;
try {
    class.forName("com.mysql.jdbc.Driver");
        con = DriverManager.getConnection("jdbc:mysql://localhost/
                                    Bus,"root","1234");
        System.out.println("Connection established");
        stmt = con.createStatement();
String sql = "Insert nets booking"+
    "values(130,'Hyderabad','Chennai','2021-07-12',
        '19:30:10','2021-01-13',19:30:10',
                4,'Person 1',38);
```

```
Stmt . executeUpdate (sql);

sql = "Insert into booking"+
    "values (131, "Hyderabad","Banglore", "2021-01-13",
        "2021-01-13 19:10:00", "2021-01-14 08:30:10", 5,
            "Person 2", 10);
Stmt. executeUpdate(sql);
System.out.println("two records has been successfully inserted");
    sql = "select * from booking";
Result set rs = Stmt. executeQuery(sql);
  while (rs.next()) {
System.out.println("Ticket no:" + rs.getInt("ticketno"));
System.out.println("Source:" + rs.getString("source"));
System.out.println("Destination:" + rs.getString("destination"));
System.out.println("DOS : " + (rs.getTimeStamp("departure").
                                    toString());

 System.out.println("Arrival: " + (rs.getTimeStamp("arrival")).
                                    toString());
System.out.println("seat no:" +rs.getInt("seatno"));
System.out.println("name: " + rs.getString("name"));
System.out.println("age :" + rs.getInt("age"));
System.out.println("\n");

 } con.close();
} catch (exception e) {
   e.printStackTrace();
 }
}
```

OUTPUT :-

Connection Established

two records has been successfully inserted

Ticket no : 130

Source : Hyderabad

Destination : Chenna

DOS : 2021-01-12

Departure : 2021-01-12 19:30:10

Arrival : 2021-01-13 19:30:10

Seat no : 4

Name : Person 1

Age : 38

Ticket no : 131

Source : Hyderabad

Destination : Banglore

DOS : 2021-01-13

Departure : 2021-01-13 19:10:00

Arrival : 2021-01-14 08:30:10.

Seat no : 5

Name : Person 2.

Age : 40