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SUBJECT	**OJT PRACTICALS (INTERNSHIP - II)**
COURSE	**B.TECH(IT)**

OJT PRACTICAL

Practical – 1

AIM :- Write a C program to print the address of a variable using a pointer.

CODE :-

```
#include
<stdio.h>

int main()

{

   int num;      int
*ptr = &num;


   printf("Enter The Number: \n");
scanf("%d",&num);     printf("Address of Number
Variable: %p", ptr);


   return 0;

}
```

OUTPUT :-

```
Enter The Number:

12

Address of Number Variable: 000000000062FE14
```

Practical – 2

AIM :- Write a C program to create a Calculator using a pointer.

CODE :-

```
#include <stdio.h>

int main() {     float
num1, num2,
result;      char op;
float *ptr1 = &num1;
float *ptr2 = &num2;
printf("Enter the first
number: ");
scanf("%f", ptr1);

   printf("Enter the operator (+, -, *, /): ");
scanf(" %c", &op);

   printf("Enter the second number: ");     scanf("%f",
ptr2);
   switch(op) {        case
'+':
result = *ptr1 +
*ptr2;           break;
       case '-':
result = *ptr1 -
*ptr2;           break;
        case
'*':
result = *ptr1 *
*ptr2;           break;
```

```
      case '/':
result = *ptr1 /
*ptr2;          break;

       default:
printf("Invalid
operator");
return 1;

   }

   printf("%.2f %c %.2f = %.2f", *ptr1, op, *ptr2, result);


   return 0;

}
```

OUTPUT :-

```
Enter the first number: 12

Enter the operator (+, -, *, /): *

Enter the second number: 12

12.00 * 12.00 = 144.00
```

Practical – 3

AIM :- Write a C program to swap the two values using call by value and call by reference.

CODE :-

```
#include
<stdio.h>


void swap_value(int x, int y)

{

   int temp
= x;    x
= y;
y =
temp;

}
```

```
void swap_reference(int *x, int *y)
{
    int temp
= *x;     *x
= *y;
    *y = temp;
}

int main()
{
    int num1, num2;

    printf("Enter the Number: \n");
scanf("%d",&num1);     scanf("%d",&num2);

    printf("\nBefore swapping using call by value: num1 = %d, num2 = %d\n", num1,
num2);     swap_value(num1, num2);     printf("After swapping using call by value:
num1 = %d, num2 = %d\n\n", num1, num2);

    printf("Before swapping using call by reference: num1 = %d, num2 = %d\n", num1,
num2);     swap_reference(&num1, &num2);     printf("After swapping using call by
reference: num1 = %d, num2 = %d\n", num1, num2);

    return 0;
}
```

OUTPUT :-

```
Enter the Number:
12
23

Before swapping using call by value: num1 = 12, num2 = 23
```

After swapping using call by value: num1 = 12, num2 = 23

Before swapping using call by reference: num1 = 12, num2 = 23

After swapping using call by reference: num1 = 23, num2 = 12

Practical – 4

AIM :- Define a structure type struct personal that would contain person name, Date of birth and age using this structure to read this information of 4 people and display the same.

CODE :-

```
#include <stdio.h>

struct personal
{
   char name[50];
int
birth_yea
r;    int
birth_mo
nth;    int
birth_day;    int
age;
};

int main() {     struct
personal p[4];

   for (int i=0;i<4;i++)
{
```

```
 printf("Enter details for person %d:\n", i+1);
printf("Name: ");        scanf("%s", p[i].name);
      printf("Date of Birth (YYYY-MM-DD): ");

      scanf("%d-%d-%d", &p[i].birth_year, &p[i].birth_month,
&p[i].birth_day);        printf("Age: ");        scanf("%d", &p[i].age);

printf("\n");

   }


   printf("Information of 4 people:\n");

for (int i=0;i<4;i++)

{

      printf("Person %d\n", i+1);         printf("Name:
%s\n", p[i].name);

      printf("Date of Birth: %d-%d-%d\n", p[i].birth_year, p[i].birth_month, p[i].birth_day);
printf("Age: %d\n", p[i].age);

      printf("\n");

   }


   return 0;

}
```

OUTPUT :-

```
Enter details for person 1:

Name: harsh

Date of Birth (YYYY-MM-DD): 10-09-2005

Age: 18


Enter details for person 2:

Name: kartik

Date of Birth (YYYY-MM-DD): 02-08-1999

Age: 24


Enter details for person 3:

Name: vivek

Date of Birth (YYYY-MM-DD): 02-09-2005
```

Age: 18

Enter details for person 4:

Name: Mukesh

Date of Birth (YYYY-MM-DD): 20-04-2006

Age: 19

Information of 4 people:

Person 1

Name: Deepak

Date of Birth: 10-9-2005

Age: 20

Person 2

Name: Abhisek

Date of Birth: 2-8-1999

Age: 24

Person 3

Name: Rahul

Date of Birth: 2-9-2005

Age: 18

Person 4

Name: Mnish

Date of Birth: 20-4-2006

Age: 17

Practical – 5

AIM :- Write a C program to calculate the sum of n numbers entered by the user using dynamic memory allocation

CODE :-

```
#include <stdio.h>

#include <stdlib.h>


int main()

{   i
n
t
n
;

   printf("Enter the number of elements: ");     scanf("%d",
&n);


   int *arr = (int *) malloc(n * sizeof(int));


   printf("Enter %d integers:\n", n);

for (int i = 0; i < n; i++)

{

      scanf("%d", &arr[i]);

   }


   int sum = 0;      for (int

i = 0; i < n; i++)

{

      sum += arr[i];

   }


   printf("Sum of %d integers is %d\n", n, sum);     free(arr);


   return 0;

}
```

OUTPUT :-

Enter the number of elements:
2 Enter 2 integers:

12

23

Sum of 2 integers is 35

Practical – 6

AIM :- A file named “New” contains a series of integer numbers. Write a c program to read all numbers from a file and then copy all odd numbers into a file named “odd” and write all even numbers into a file named “even”. Then display the values of files odd and even on the screen

CODE :-

```
#include
<stdio.h>

int main()
{
   FILE *fp1, *fp2,
*fp3;    int num;

   fp1 = fopen("6 New.txt", "r");

   if (fp1 == NULL)
{
      printf("Error: Unable to open the file.\n");
return 1;
   }

   fp2 = fopen("6 odd.txt", "w");

   if (fp2 == NULL) {
```

```
    printf("Error: Unable to open the file.\n");
return 1;
  }

  fp3 = fopen("6 even.txt", "w");

  if (fp3 == NULL)

{
    printf("Error: Unable to open the file.\n");
return 1;
  }

  while (fscanf(fp1, "%d", &num) != EOF)

{
    if (num % 2 == 0)

{
      fprintf(fp3, "%d\n", num);
    }

else

{
      fprintf(fp2, "%d\n", num);
    }
  }

  fclose(fp1);
fclose(fp2);   fclose(fp3);
printf("Odd numbers in
the file:\n");   fp2 =
fopen("6  odd.txt",  "r");
while (fscanf(fp2, "%d",
&num) != EOF)
```

```
{
    printf("%d\n", num);
  }
  fclose(fp2);

  printf("Even numbers in the
file:\n");    fp3 = fopen("6 even.txt",
"r");    while
(fscanf(fp3, "%d", &num) != EOF)
{
    printf("%d\n", num);
  }
  fclose(fp3);

  return 0;
}
```

OUTPUT :-

```
Odd numbers in the file:
33
35
Even numbers in the file:
12
12
34
56
44

36
```

Practical – 7

AIM :- Write a C++ program to Check if the number is prime or not using a function.

CODE :-

```
#include
<iostream> using
namespace  std;
bool Prime(int num)
{
   if(num<=1)
         {
      return false;
   }
   for (int i=2;i<=num/2;i++)
         {
      if (num%i==0)
                  {
         return false;
      }
   }
   return true;
}

int main()
{
   int num;
cout<<"Enter a


number: ";     cin>> num;


   if(Prime(num))
         {
```

```
    cout<<num<<" is a prime number."<<endl;
  }
e
l
s
e
      {
    cout<<num<< " is not a prime number."<< endl;
  }
  return 0;
}
```

OUTPUT :- Enter a number: 34 34 is not a prime number.

Enter a number: 13 13 is a prime number.

Practical – 8

AIM :- Write a C++ program that prompts the user to enter a letter and check whether a letter is a vowel or constant.

CODE :-

```
#include <iostream>
using namespace std;

int main()
{
```

```
   char letter;    cout<<"Enter a letter: ";    cin>>letter;
if(letter=='a' || letter=='e' || letter=='i' || letter=='o' || letter=='u'
|| letter=='A' || letter=='E' || letter=='I' || letter=='O' ||
letter=='U')
          {
      cout<<letter<<" is a vowel."<<endl;
   }
   else
          {
      cout<<letter<<" is a consonant."<<endl;
   }
   return 0;
}
```

OUTPUT :-

```
Enter a
letter: a a
is a
vowel.

Enter a
letter: c c
is a
consona
nt.
```

Practical – 9

AIM :- Write a C++ program to demonstrate the concept of constructor and destructor.

CODE :-

```
#include
<iostream>      using
namespace std;
```

```
class MyClass
{
public:
MyClass
()
 {
      cout<<"Constructor called."<<endl;
   }

   ~MyClass()
          {
      cout<<"Destructor called."<<endl;
   }
};

int main()
{
   MyClass obj;
return 0;
}
```

CODE :-

```
Constructor called.
Destructor called.
```

Practical – 10

AIM :- Create a class student that stores roll_no, name. Create a class test that stores marks obtained in five subjects. Class result derived from student and test contains the total marks and percentage obtained in test. Input and display information of a student.

CODE :-

```
#include<iost
ream>
#include<stri
ng> using
namespace
std;


class Student{
public:
    int roll_no;
string name;
};


class
Test{   public:
    int subject_marks[5];


    int  total_marks(){        int
total = 0;          for(int
i=0; i<5; i++){
total += subject_marks[i];
      }
      return total;
    }


    double percentage(){
return (total_marks() / 5.0);  }

};


class Result : public Student, public Test{
public:
    Result(int roll_no, string name, int marks[]){
      this->roll_no =
roll_no;          this->name =
name;         for(int i=0;
i<5; i++){
subject_marks[i] = marks[i];
```

```
        }
    }
};

int main(){    int marks[] = {80,
90, 85, 75, 95};
  Result r(1, "John Doe", marks);

  cout << "Roll No: " << r.roll_no << endl;
cout << "Name: " << r.name
<< endl;
  cout << "Marks: ";    for(int i=0; i<5;
i++){         cout << r.subject_marks[i]
<< " ";
  }
  cout << endl;    cout << "Total Marks: " <<
r.total_marks() << endl;     cout << "Percentage: "
<< r.percentage() << endl;

  return 0;
}
```

OUTPUT :-

```
Roll No: 1
Name: John Doe
Marks: 80 90 85 75 95
Total Marks: 425
Percentage: 85
```

Practical – 11

AIM :- Write a C++ program to overload binary + operator.

CODE :-

```
#include <iostream> using namespace std;

class MyClass
{
private
:    int value;
public:
MyClas
s(int v)
        {
    value = v;
  }

  MyClass operator+(const MyClass& other) const
        {
    int result = value + other.value;
return MyClass(result);
  }

  int getValue() const

{
    return value;
  }
};

int main()
{
        int x,y;
        cout<<"Enter the value: ";

 cin>>x;
cin>>y;
```

```
    MyClass a(x);
    MyClass b(y);


    MyClass c=a+b;

    cout<<"a = "<<a.getValue()<< endl;
cout<<"b = "<<b.getValue()<<endl;
cout<<"c = a + b = "<<c.getValue()<< endl;

    return 0;
}
```

OUTPUT :-

```
Enter the
value: 23
32 a = 23
b = 32 c = a
+ b = 55
```

Practical – 12

AIM :- Create a base class called 'SHAPE' having two data members of type double, member function get_data( ) to initialize base class data members, pure virtual member function display_area( ) to compute and display the area of the geometrical object. Derive two specific classes 'TRIANGLE' and 'RECTANGLE' from the base class. Using these three classes design a program that will accept dimension of a triangle / rectangle interactively and display the area.

CODE :-

```
#include <iostream> using

namespace std;


class Shape
```

```
{
public:    virtual
void draw()
        {
    cout<<"Drawing a shape"<<endl;
  }
};

class Circle:public Shape
{
publ
ic:
void
dra
w()
        {
    cout<<"Drawing a circle"<<endl;
  }
};

class Rectangle:public Shape
{
publ
ic:
void dra
w()
        {
    cout<<"Drawing a rectangle"<<endl;
  }
};

int main()
{
  Shape* s = new Shape();
  Shape* c = new Circle();
```

```
   Shape* r = new Rectangle();


   s->draw();    c-
>draw();    r-
>draw();    return
0;

}
```

OUTPUT :-

Drawing a shape

Drawing a circle

Drawing a rectangle

Practical – 13

AIM :- To study DDL-create and DML-insert commands.

DDL (Data Definition Language) and DML (Data Manipulation Language) are two different types of SQL (Structured Query Language) commands used to manage and manipulate databases.

DDL commands are used to define and manipulate the structure of the database, including creating tables, altering tables, adding columns, and deleting tables.

DML commands, on the other hand, are used to manipulate the data within the database, including inserting, updating, and deleting data in tables.

Let's start by looking at the syntax and usage of DDL-create and DML-insert commands:

DDL-Create Command:

The create command is used to create a new table in the database. The basic syntax of the create command is as follows:

CODE :-

```
CREATE TABLE
table_name ( column1
datatype,  column2
```

```
datatype, column3
datatype,
  ....
);
```

For example, to create a table named "customers" with columns for "id", "name", "email", and "phone", the following command would be used:

CODE :-

```
CREATE TABLE
customers (      id
INT PRIMARY KEY,
name
VARCHAR(50), email
VARCHAR(50),
phone VARCHAR(20)
);
```

DML-Insert Command:

The insert command is used to insert data into a table in the database. The basic syntax of the insert command is as follows:

CODE :-

```
INSERT INTO table_name (column1, column2, column3, ...)
VALUES (value1, value2, value3, ...);
```

For example, to insert a new row of data into the "customers" table created in the previous example, the following command would be used:

CODE :-

```
INSERT INTO customers (id, name, email, phone)
VALUES (1, 'John Doe', 'john@example.com', '555-1234');
```

This command would insert a new row into the "customers" table with the values specified for the "id", "name", "email", and "phone" columns.

I hope this helps you understand the basics of DDL-create and DML-insert commands in SQL.
If you have any further questions, feel free to ask!

Practical – 14

AIM :- Create following Table

1. Job (job_id, job_title, min_sal, max_sal)

COLUMN NAME	DATA TYPE
job_id	Varchar(15)
job_title	Varchar(30)
min_sal	Int
max_sal	Int

CODE :-
```
CREATE TABLE Job (    job_id VARCHAR(15) PRIMARY KEY,
  job_title VARCHAR(30),
  min_sal           INT,
max_sal INT
);
```

1. Employee (emp_no, emp_name, emp_sal, emp_comm, dept_no)

COLUMN NAME	DATA TYPE
emp_no	Int

emp_name	Varchar(30)
emp_sal	decimal(8,2)
emp_comm	decimal(6,1)
dept_no	Int

CODE :- CREATE
TABLE Employee (
emp_no INT PRIMARY
KEY, emp_name
VARCHAR(30),
emp_sal
DECIMAL(8,2),
emp_comm
DECIMAL(6,1),

dept_no INT

);

2. deposit(a_no,cname,bname,amount,a_date)

COLUMN NAME	DATA TYPE
a_no	Int,identity
cname	Varchar(50)

bname	Varchar(30)
amount	Decimal(4,2)
a_date	Date

CODE :- CREATE TABLE
deposit (a_no INT
IDENTITY PRIMARY KEY,
cname VARCHAR(50),
bname VARCHAR(30),
amount DECIMAL(4,2),
a_date DATE

);

3. borrow(loanno,cname,bname,amount)

COLUMN NAME	DATA TYPE
loanno	Int
cname	Varchar(25)
bname	Varchar(20)
amount	Decimal(6,2)

CODE :-

CREATE TABLE borrow

```
(    loanno INT PRIMARY KEY,
cname VARCHAR(25),
        bname VARCHAR(20),
        amount DECIMAL(6,2)
        );
```

Practical – 15

AIM :- Create tables and insert sample data in tables.

Write SQL queries to insert following data into tables

Insert following values in the table **Employee.**

emp_n	emp_name	emp_sal	emp_comm	dept _no
101	Smith	800		20
102	Snehal	1600	300	25
103	Adama	1100	0	20
104	Aman	3000		15
105	Anita	5000	50000	10
106	Sneha	2450	24500	10
107	Anamika	2975		30

CODE :-

```
CREATE TABLE Employee (
 emp_no INT PRIMARY KEY, emp_name
VARCHAR(30)
NOT   NULL,        emp_sal
DECIMAL(8,2)  NOT  NULL,
emp_comm DECIMAL(6,1),
dept_no INT NOT NULL
);
```

```
INSERT INTO Employee (emp_no, emp_name, emp_sal, emp_comm, dept_no) VALUES
(101, 'Smith', 800.00, 20, 0),

 (102, 'Snehal', 1600.00, 300, 25),

 (103, 'Adama', 1100.00, 0, 20),

 (104, 'Aman', 3000.00, 15, 0),

 (105, 'Anita', 5000.00, 50000, 10),

 (106, 'Sneha', 2450.00, 24500, 10),

 (107, 'Anamika', 2975.00, 30, 0);
```

AIM :- Create tables and insert sample data in tables.

Write SQL queries to insert following data into tables

Insert following values in the table **Job.**

job_id	**job_name**	**min_sal**	**max_sal**
IT_PROG	Programmer	4000	10000
MK_MGR	Marketing manager	9000	15000
FI_MGR	Finance manager	8200	12000
FI_ACC	Account	4200	9000
LEC	Lecturer	6000	17000
COMP_OP	Computer Operator	1500	3000

CODE :-

```
CREATE TABLE Job ( job_id VARCHAR(15) PRIMARY KEY,
job_name VARCHAR(30) NOT NULL,
min_sal DECIMAL(10,2) NOT NULL,
max_sal DECIMAL(10,2) NOT NULL

);

INSERT INTO Job (job_id, job_name, min_sal, max_sal) VALUES

 ('IT_PROG', 'Programmer', 4000.00, 10000.00),

 ('MK_MGR', 'Marketing manager', 9000.00, 15000.00), ('FI_MGR', 'Finance manager',
8200.00, 12000.00),
```

('FI_ACC', 'Account', 4200.00, 9000.00),

('LEC', 'Lecturer', 6000.00, 17000.00),

('COMP_OP', 'Computer Operator', 1500.00, 3000.00);

AIM :- Create tables and insert sample data in tables.

Write SQL queries to insert following data into table.

Insert following values in the table **deposit**.

A_no	cname	Bname	Amount	date
101	Anil	andheri	7000	01-jan-06
102	sunil	virar	5000	15-jul-06
103	jay	villeparle	6500	12-mar-06
104	vijay	andheri	8000	17-sep-06
105	keyur	dadar	7500	19-nov-06
106	mayur	borivali	5500	21-dec-06

CODE :-

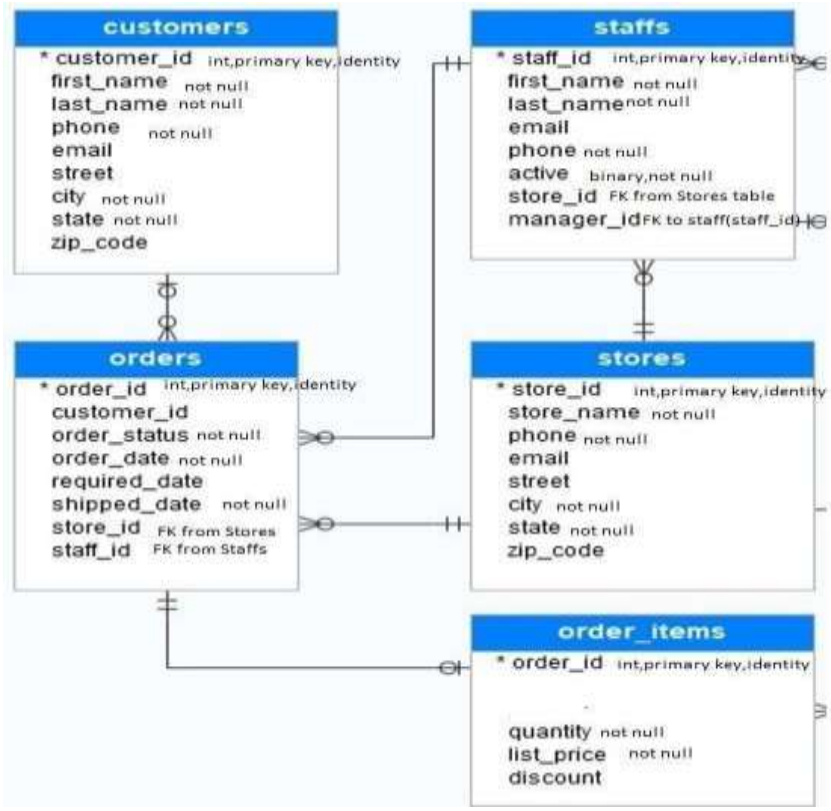
```
CREATE TABLE deposit (
a_no INT IDENTITY PRIMARY KEY, cname VARCHAR(50) NOT NULL,
bname VARCHAR(30) NOT NULL, amount DECIMAL(8,2) NOT NULL,
a_date DATE NOT NULL
);

INSERT INTO deposit (cname, bname, amount, a_date) VALUES
('Anil', 'andheri', 7000.00, '2006-01-01'),
('sunil', 'virar', 5000.00, '2006-07-15'),
('jay', 'villeparle', 6500.00, '2006-03-12'),
('vijay', 'andheri', 8000.00, '2006-09-17'),
('keyur', 'dadar', 7500.00, '2006-11-19'),
```

('mayur', 'borivali', 5500.00, '2006-12-21');

Practical – 16

AIM :- Write the SQL queries to provide constraints on given tables.

Create A Database Sales and Write SQL Queries to create following tables with all constrains mentioned in image.



CODE :-

```
CREATE TABLE customers ( customer_id
INT PRIMARY
KEY,              first_name
VARCHAR(50) NOT NULL,
last_name  VARCHAR(50)
NOT NULL, phone
VARCHAR(20), email
VARCHAR(100), street
```

```
VARCHAR(100), city
VARCHAR(50) NOT NULL,
state VARCHAR(50) NOT
NULL,


 zip_code VARCHAR(20)

);


CREATE TABLE staff ( staff_id
INT PRIMARY KEY,
first_name VARCHAR(50)
NOT NULL, last_name
VARCHAR(50) NOT NULL,
email VARCHAR(100),
phone VARCHAR(20) NOT
NULL, active BOOLEAN NOT
NULL,

 store_id INT,

 FOREIGN KEY (store_id) REFERENCES stores(store_id)

);


CREATE TABLE stores (
store_id INT PRIMARY KEY,
store_name VARCHAR(50)
NOT NULL, phone
VARCHAR(20) NOT NULL,

 email VARCHAR(100),
street VARCHAR(100), city
VARCHAR(50) NOT
NULL, state
VARCHAR(50) NOT
NULL, zip_code
VARCHAR(20),
manager_id INT,

 FOREIGN KEY (manager_id) REFERENCES staff(staff_id)

);


CREATE TABLE orders ( order_id
INT PRIMARY KEY, order_date
DATE NOT NULL, required_date
DATE, shipped_date DATE NOT
```

```
NULL, order_status
VARCHAR(20)
NOT NULL,


customer
_id       INT,
staff_id INT,
store_id
INT,
 FOREIGN KEY (customer_id) REFERENCES customers(customer_id),
 FOREIGN KEY (staff_id) REFERENCES staff(staff_id),
 FOREIGN KEY (store_id) REFERENCES stores(store_id)
);


CREATE TABLE order_items (
order_id INT, item_id INT PRIMARY
KEY, quantity INT
NOT NULL, list_price DECIMAL(10,
2) NOT NULL, discount
DECIMAL(5, 2),
 FOREIGN KEY (order_id) REFERENCES orders(order_id)
);
```

Practical – 17

AIM :- Write the SQL queries to perform various aggregate functions on table data.

1. List total deposit from deposit.

CODE :-
```
SELECT SUM(amount) AS total_deposit FROM deposit;
```

2. List total amount from andheri branch

CODE :-
```
SELECT SUM(amount) AS total_amount FROM deposit WHERE bname =
'andheri';
```

3. Count total number of customers

CODE :-
```
SELECT COUNT(DISTINCT cname) AS total_customers FROM deposit;
```

4. Count total number of customer's cities

CODE :- SELECT COUNT(DISTINCT bname) AS total_cities FROM deposit;

5. Update the value dept_no to 10 where second character of emp. name is 'm'.

CODE :- UPDATE Employee SET dept_no = 10 WHERE emp_name LIKE '_m%';

6. Update the value of employee name whose employee number is 103. **CODE :-**

UPDATE Employee SET emp_name = 'Adam' WHERE emp_no = 103;

7. Write a query to display the current date. Label the column Date **CODE :-**

SELECT GETDATE() AS Date;

8. For each employee, display the employee number, salary, and salary in creased by 15% and expressed as a whole number. Label the column New Salary

CODE :- SELECT emp_no, emp_sal, ROUND(emp_sal*1.15,0) AS "New Salary" FROM Employee;

9. Modify your previous query to add a column that subtracts the old salary from the new salary. Label the column Increment.

CODE :- SELECT emp_no, emp_sal, ROUND(emp_sal*1.15,0) AS "New Salary", ROUND(emp_sal*0.15,0) AS Increment FROM Employee;

Practical – 18

AIM :- Write the SQL queries to perform numeric, date and String functions.

1. Retrieve all data from employee, jobs and deposit.

CODE :-
```
SELECT * FROM employee;
SELECT * FROM jobs;

SELECT * FROM deposit;
```

2. Give details of account no. and deposited rupees of customers having account opened between dates 01-01-06 and 25-07-06.

CODE :-
```
SELECT a_no, amount FROM deposit
WHERE a_date BETWEEN '2006-01-01' AND '2006-07-25';
```

3. Display all jobs with minimum salary is greater than 4000.

CODE:-
```
SELECT * FROM
jobs WHERE
min_sal > 4000;
```

4. Display name and salary of employee whose department no is 20. Give alias name to name of employee.

CODE :-
```
SELECT emp_no, emp_name AS employee_name, emp_sal, dept_no
FROM employee
WHERE dept_no = 20;
```

5. Display employee no,name and department details of those employee whose department lies in(10,20)

CODE :-
```
SELECT emp_no, emp_name, dept_no FROM employee
WHERE dept_no IN (10, 20);
```

6. Display all employee whose name start with ‘A’ and third character is ‘ ‘a’.

CODE :-
```
SELECT * FROM employee
WHERE emp_name LIKE 'A _a%';
```

7. Display name, number and salary of those employees whose name is 5 characters long and first three characters are ‘Ani’.

CODE :-
```
SELECT emp_name, emp_no, emp_sal FROM employee
WHERE emp_name LIKE 'Ani___';
```

8. Display the non-null values of employees and also employee name second charactershould be ‘n’ and string should be 5 character long.

CODE :- SELECT * FROM employee

```
WHERE emp_name LIKE '_n%' AND LENGTH(emp_name) = 5 AND
emp_name IS

NOT NULL;
```

9. Display the null values of employee and also employee name's third character should be 'a'.

CODE :- SELECT * FROM employee

```
WHERE emp_name LIKE '__a%' AND emp_name IS NULL;
```

Practical – 19

AIM :- Make a Resume using the HTML tags without CSS.

CODE :-

```
<!DOCTYP
E html>

<html>

<head>

        <title>My Resume</title>

</head>

<body>


        <h1>Vivek Khatri</h1>

         <div>Website designer</div>

  <div>vivekbkhatri123@gmail.com</div>

  <div>7383160557</div>

  <div>Ahmedabad, Gujarat</div>


        <h3>Objective</h3>
```

To obtain a challenging position as a software engineer where I can utilize my skills and knowledge to develop innovative solutions for complex problems.

<h3>Education</h3>

B.Tech(IT), Aditya Silver oak Institute of Technology, 2022

12thshree ram vidhyalaya,Palanpur 2021-2022

10th Shubham International school Deesa, 2019-2020

<h3>Skills</h3>

Proficient in Java, C++, Python, HTML, CSS,Bootstrap,Sql and JavaScript

Strong problem-solving and critical thinking skills

<h3>Language</h3>

English

Hindi

<h3>Hobbies</h3>

Writing

Cooking

Network marketing

<h4>Certificate</h4>

Artificial Intelligence

HTML

CSS

</body>
</html>

Vivek Khatri

Website designer
vivekbkhatri123@gmail.com
7383160557
Ahmedabad, Gujarat

Objective

To obtain a challenging position as a software engineer where I can utilize my skills and knowledge to develop innovative solutions for complex problems.

Education

- B.Tech(IT), Aditya Silver oak Institute of Technology, 2022
- 12th shree ram vidhyalaya,Palanpur 2021-2022
- 10th Shubham International school Deesa, 2019-2020

Skills

- Proficient in Java, C++, Python, HTML, CSS,Bootstrap,Sql and JavaScript
- Strong problem-solving and critical thinking skills

Language

- English
- Hindi

Hobbies

- Writing
- Cooking
- Network marketing

Certificate

- Artificial Intelligence
- HTML

AIM :- Create an HTML webpage that shows Poster Presentation using all Table Properties.

CODE :- <!DOCTYP
E html>

<html>

<head>

<title>Poster Presentation</title>

```
    <style>
        table {
            border-collapse: collapse;
            width: 100%;
        }
        th, td {
    border: 1px solid black;
            padding: 8px;
            text-align: left;
        }
        th {
            background-color: #f2f2f2;
        }
        .highlight {
    background-color: yellow;
        }
    </style>
</head>
<body>
    <h1>Poster Presentation</h1>

    <table>
        <thead>
            <tr>
                <th>Presenter</th>
                <th>Title</th>
                <th>Date</th>
            </tr>
        </thead>
        <tbody>
            <tr>
```

<td>Vijaya Raghavan</td>

<td>Effects of Exercise on Mental Health</td>

<td>Sep 3, 2019</td>

</tr>

<tr>

<td>Pratyasha Jain</td>

<td>Impact of Social Media on Adolescents</td>

<td>March 1, 2023</td>

</tr>

<tr>

<td>K. Vijayaraghavan</td>

<td>The Role of Nutrition in Aging</td>

<td>Sep 22, 2008</td>

</tr>

</tbody>

</table>

Here are some key takeaways from the presentations:

<table>

<tr>

<th>Presenter</th>

<th>Key Takeaway</th>

</tr>

<tr>

<td>Vijaya Raghavan</td>

<td class="highlight">Exercise can improve mental health outcomes in a variety of populations, including those with depression and anxiety.</td>

</tr>

<tr>

<td>Pratyasha Jain</td>

```
                    <td class="highlight">Social media use may contribute to increased rates of anxiety and depression among adolescents.</td>
                </tr>
                <tr>
                    <td>K. Vijayaraghavan</td>
                    <td class="highlight">Proper nutrition can help slow the aging process and prevent agerelated diseases.</td>
                </tr>
            </table>

            <p>Overall, these presentations highlight the important role that lifestyle factors can play in both physical and mental health outcomes. By making small changes to our diet and exercise habits, we can improve our overall well-being.</p>

</body>
</html>
```

OUTPUT :-

Poster Presentation

Presenter	Title	Date
Vijaya Raghavan	Effects of Exercise on Mental Health	Sep 3, 2019
Pratyusha Jain	Impact of Social Media on Adolescents	March 1, 2023
K. Vijayaraghavan	The Role of Nutrition in Aging	Sep 22, 2008

Here are some key takeaways from the presentations:

Presenter	Key Takeaway
Vijaya Raghavan	Exercise can improve mental health outcomes in a variety of populations, including those with depression and anxiety.
Pratyusha Jain	Social media use may contribute to increased rates of anxiety and depression among adolescents.
K. Vijayaraghavan	Proper nutrition can help slow the aging process and prevent age-related diseases.

Overall, these presentations highlight the important role that lifestyle factors can play in both physical and mental health outcomes. By making small changes to our diet and exercise habits, we can improve our overall well-being.

Practical – 21

AIM :- Create an HTML page table and form

CODE :-

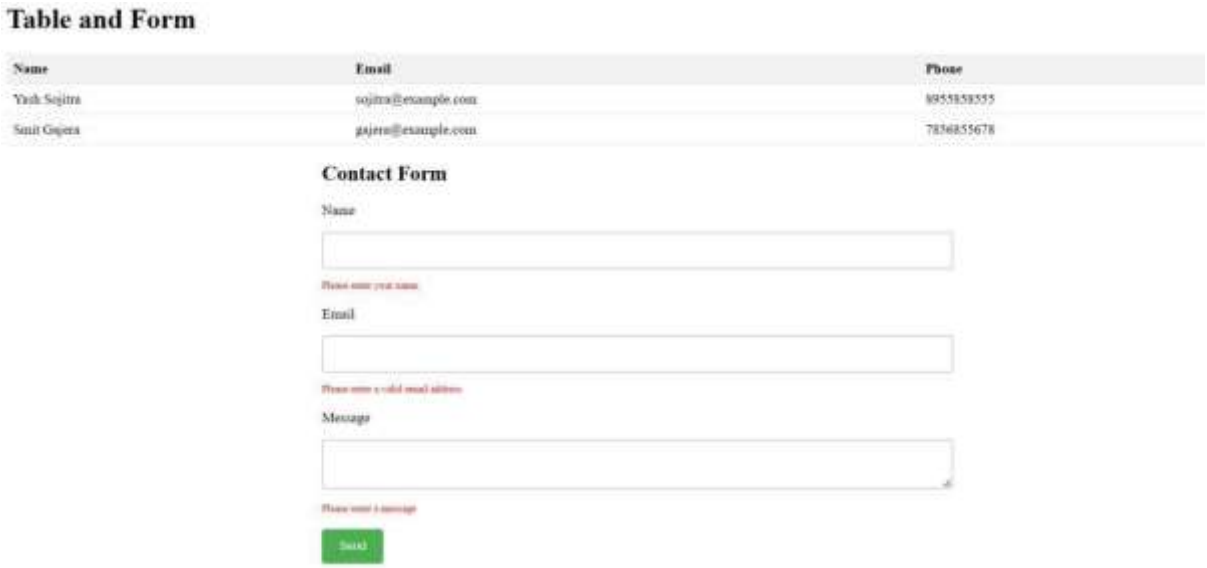
```
<!DOCTYPE html>
<html>
<head>
<title>Table and Form with CSS</title>
<style> /* Table Styles */
table { border-collapse:
collapse; width: 100%;
}

th, td { textalign: left; padding:
8px; border-bottom: 1px solid
#ddd;
}

th {
background-color: #f2f2f2;
}

/* Form
Styles
*/ form {
width: 50%;
margin: 0 auto;
}

label {
display:
block;
marginbotto
m: 8px;
}

input[type="text"], textarea
{ width:
100%; padding:
12px 20px; margin:
8px 0; box-sizing:
border-box; border: 2px
```

```
solid #ccc; border-
radius: 4px;  resize:
vertical;

}


input[type="submit
"] {
backgroundcolor:
#4CAF50; color:
white; padding:
12px 20px; border:
none;
borderradius: 4px;
cursor: pointer;

}


input[type="submit"]:hover { background-color:

#45a049;

}


.form-group { margin-
bottom: 16px;

}




.error
{
color:
red;
fontsize:
12px;
margi n-
top: 4px;

}

</style>

</head>

<body>

<h1>Table and Form</h1>
```

```
<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guddu giri</td>
<td>guduxt@example.com</td>
<td>8955858555</td>
</tr>
<tr>
<td>Smit Gajera</td>
<td>gajera@example.com</td> <td>7985248023</td>
</tr>
</tbody>
</table>

<form>
<h2>Contact Form</h2>

<div class="form-group">
<label for="name">Name</label>
<input type="text" id="name" name="name" required>
<span class="error">Please enter your name</span>
</div>

<div class="form-group">
<label for="email">Email</label>
```

```
<input type="text" id="email" name="email" required>
<span class="error">Please enter a valid email address</span>
</div>

<div class="form-group">
<label for="message">Message</label>
<textarea id="message" name="message" required></textarea>
<span class="error">Please enter a message</span>
</div>

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

OUTPUT :-



Practical – 22

AIM :- Create Registration form and do proper validation with HTML 5 inbuilt functionality. (Don't use JavaScript).

CODE :- <!DOCTYP

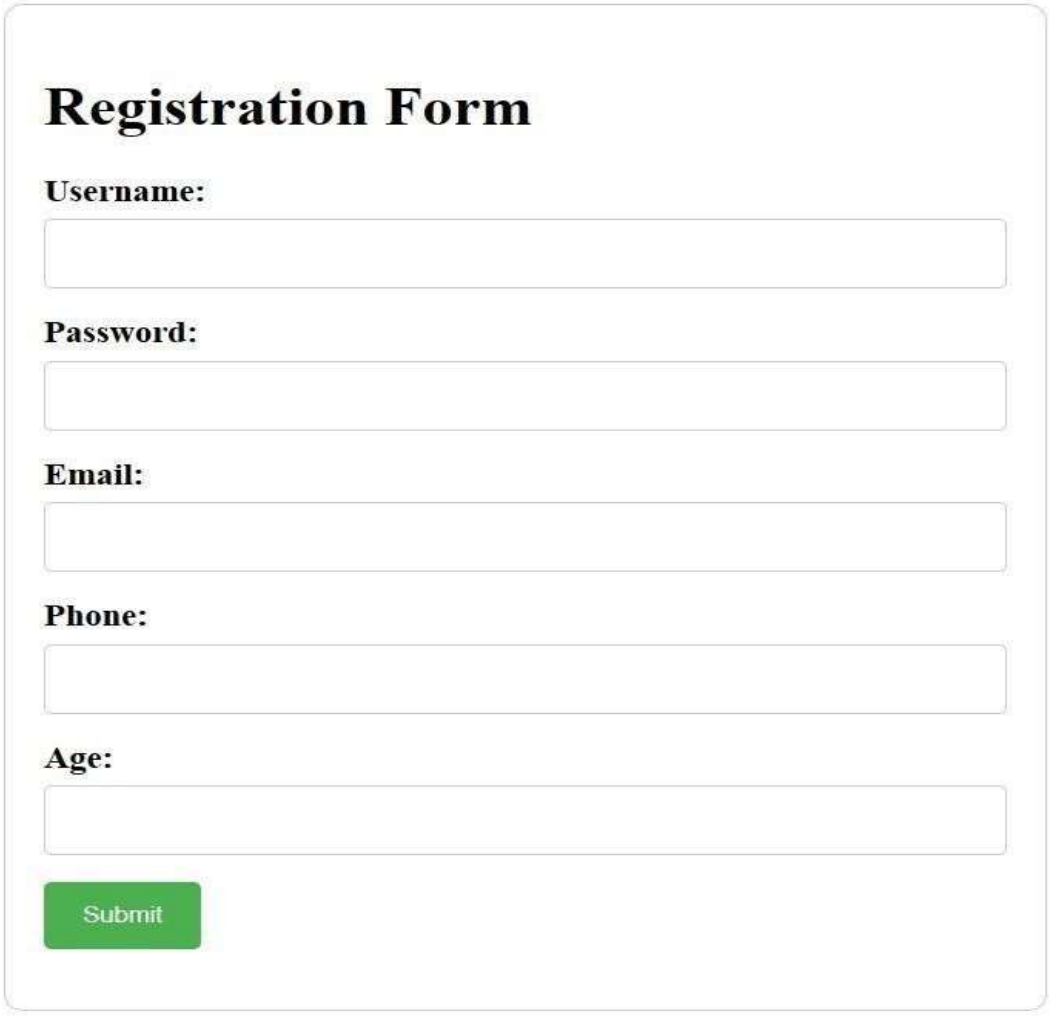
```
E html>

<html>

 <head>

  <title>Table and Form with CSS</title>

  <style>

   /* Table Styles */

   table {

     border-collapse: collapse;
width: 100%;

   }


th, td {
text-align:
left;
padding: 8px;
border-
bottom: 1px
solid #ddd;


}

th {

     background-color: #f2f2f2;

   }


   /* Form
Styles */     form
{      width:
50%;
margin: 0 auto;

   }


   label {
display: block;
margin-bottom: 8px;

   }


   input[type="text"], textarea
{      width:
```

```
100%;        padding:
12px 20px;        margin:
8px 0;        box-sizing:
border-box;        border:
2px solid #ccc;
border-radius: 4px;

       resize: vertical;

     }


input[type="submit"] {
background-color:
#4CAF50;        color:
white;        padding:
12px 20px;        border:
none;        borderradius:
4px;

       cursor: pointer;

     }


     input[type="submit"]:hover {        background-color:
#45a049;

     }


     .form-group {
margin-bottom: 16px;

     }


     .error {        color:
red;        font-size:
12px;        margin-
top: 4px;

     }

   </style>

 </head>

 <body>

   <h1>Table and Form</h1>


   <table>
```

```
 <thead>
  <tr>
   <th>Name</th>
   <th>Email</th>
   <th>Phone</th>
  </tr>
 </thead>
 <tbody>
  <tr>
   <td>Yash Sojitra</td>
   <td>sojitra@example.com</td>          <td>8955858555</td>
  </tr>
  <tr>
   <td>Smit Gajera</td>
   <td>gajera@example.com</td>
   <td>7856855678</td>
  </tr>
 </tbody>
</table>

<form>
 <h2>Contact Form</h2>

 <div class="form-group">
  <label for="name">Name</label>
  <input type="text" id="name" name="name" required>
  <span class="error">Please enter your name</span>
 </div>

 <div class="form-group">
  <label for="email">Email</label>
  <input type="text" id="email" name="email" required>
```

```
      <span class="error">Please enter a valid email address</span>
    </div>

    <div class="form-group">
      <label for="message">Message</label>
      <textarea id="message" name="message" required></textarea>
      <span class="error">Please enter a message</span>
    </div>

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

OUTPUT:-



Practical – 23

PRACTICAL:- 24

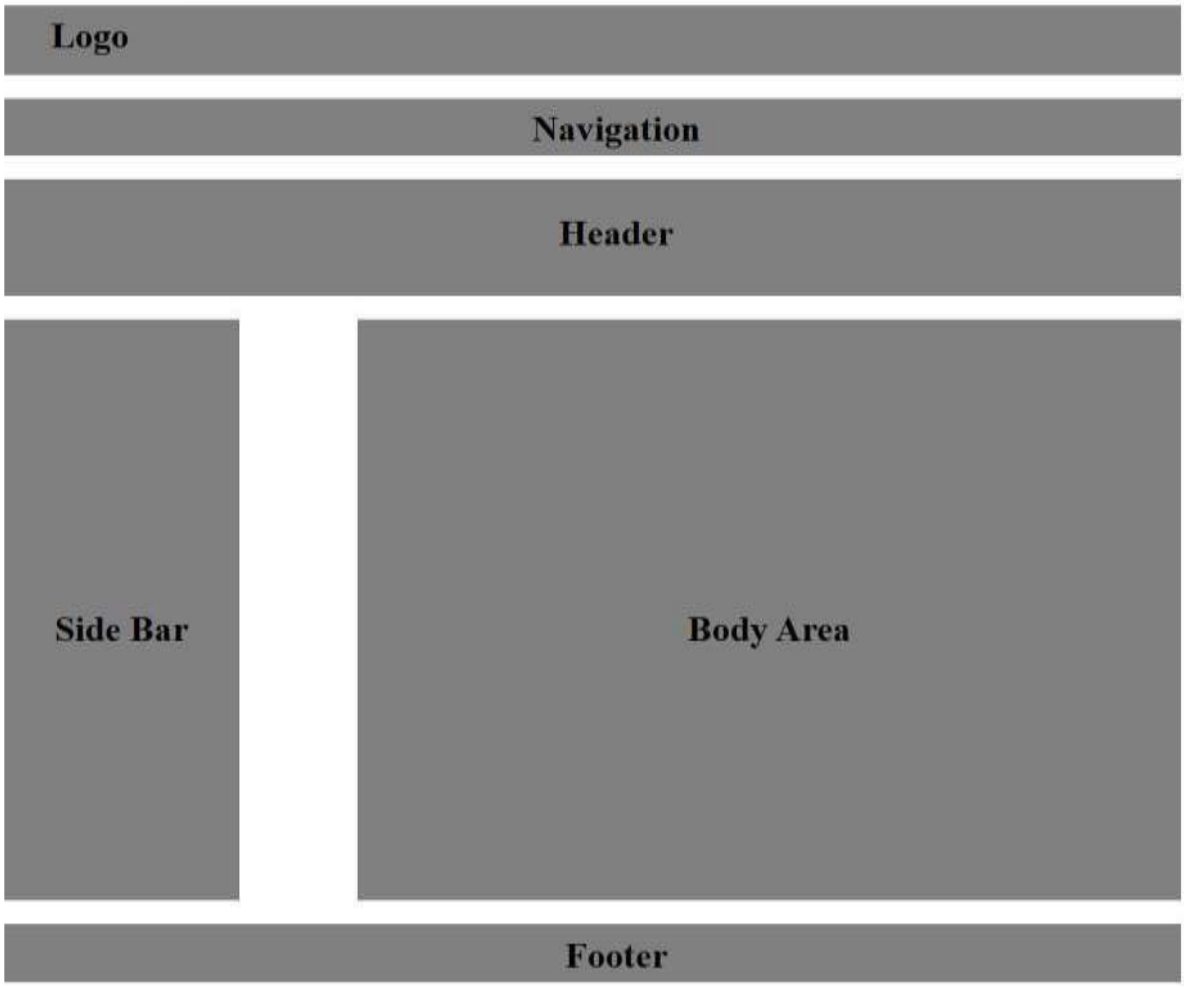
AIM :- Create an HTML Page containing the following Gray Layout using CSS

CODE :- <!DOCTYP
E html>

```
<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```
  <meta name="viewport" content="width=device-width, initial-scale=1.0">     <title>Gray layout 1</title>
  <style>
    *{font-size: 30px;font-weight: bolder;}
    #r1{background-color: gray; height: 50px; width: 48%; padding-top: 10px;padding-left: 2%;margin-bottom: 20px;}
    #r2,#r5{background-color: gray; height: 40px; width: 48%; padding-top: 10px;paddingleft: 2%;margin-bottom: 20px; text-align: center;}
    #r3{background-color: gray; height: 70px; width: 48%; padding-top: 30px;padding-left: 2%;margin-bottom: 20px; text-align: center;}
    #r4{height: 500px; width: 100%; margin-bottom: 20px;}
    #r4 div{float: left; background-color: gray; padding-top: 250px; height: 250px; textalign: center;}
    #r4c1{width: 10%; margin-right: 5%; }
    #r4c2{width: 35%; }
  </style>
</head>
<body>
  <div id="maindiv">
  <div id="r1">Logo</div>
  <div id="r2">Navigation</div>
  <div id="r3">Header</div>
  <div id="r4">
    <div id="r4c1">Side Bar</div>
    <div id="r4c2">Body Area</div>
  </div>
  <div id="r5">Footer</div>
  </div>
</body>
</html>
```

OUTPUT :-



CODE :- <!DOCTYP
E html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0"> <title>Gray Layout 2</title>

<style>

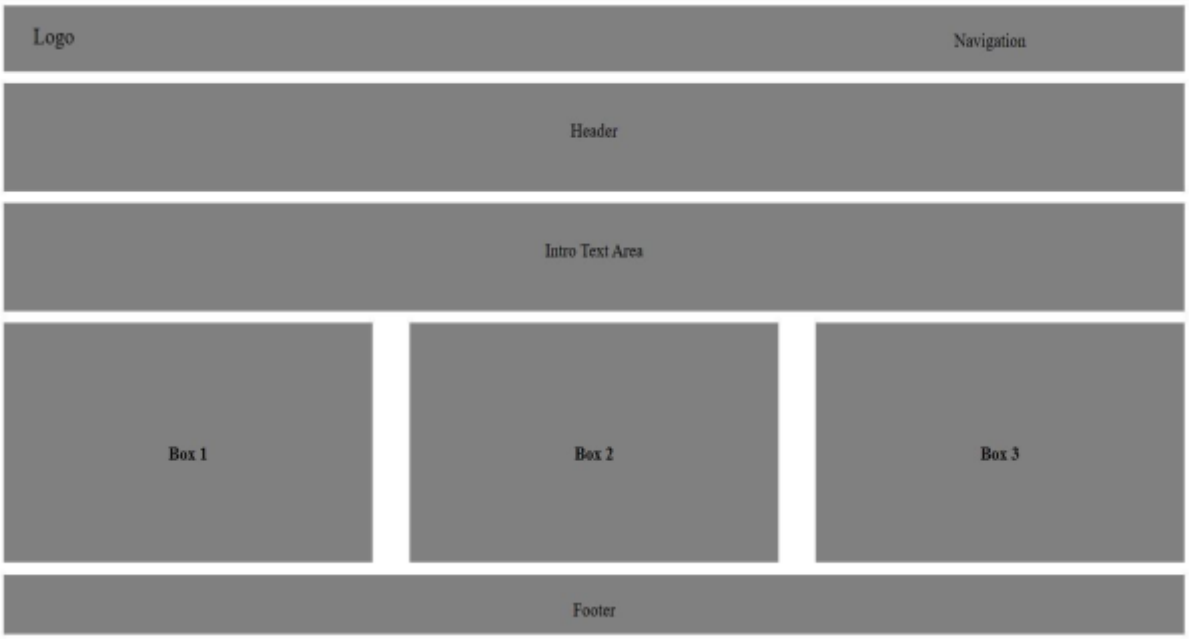
#r1{background-color: gray; width: 78%;padding-top: 15px;padding-left: 2%; marginleft: 10%; height: 40px;}

#r1c1{float: left; font-size: larger;}

#r1c2{margin-left:80%;padding-top: 5px;}

```
    #r2, #r3{width: 80%;margin-left: 10%;height: 60px;padding-top: 30px; backgroundcolor: gray;margin-top: 10px; text-align: center;}

    #r4 div{float: left; background-color: gray; font-weight: bolder;}

    #r4c1{margin-left: 10%;text-align: center;width: 25%;height: 100px;margin-top: 10px;paddingtop: 100px;}

    #r4c2{margin-left: 2.5%;text-align: center;width: 25%;height: 100px;margin-top: 10px;paddingtop: 100px;}

    #r4c3{margin-left: 2.5%;text-align: center;width: 25%;height: 100px;margin-top: 10px;paddingtop: 100px;}

    #r5{width: 80%;margin-left: 10%;background-color: graY;margin-top: 220px;height: 30px;padding-top: 20px;text-align: center;}

  </style>

</head>

<body>


    <div id="r1">

      <div id="r1c1">Logo</div>

      <div id="r1c2">Navigation</div>

    </div>

    <div id="r2">Header</div>

    <div id="r3">Intro Text Area</div>

    <div id="r4">

      <div id="r4c1">Box 1</div>

      <div id="r4c2">Box 2</div>

<div id="r4c3">Box 3</div>

    </div>

    <div id="r5">Footer</div>


</body>

</html>
```

OUTPUT :-

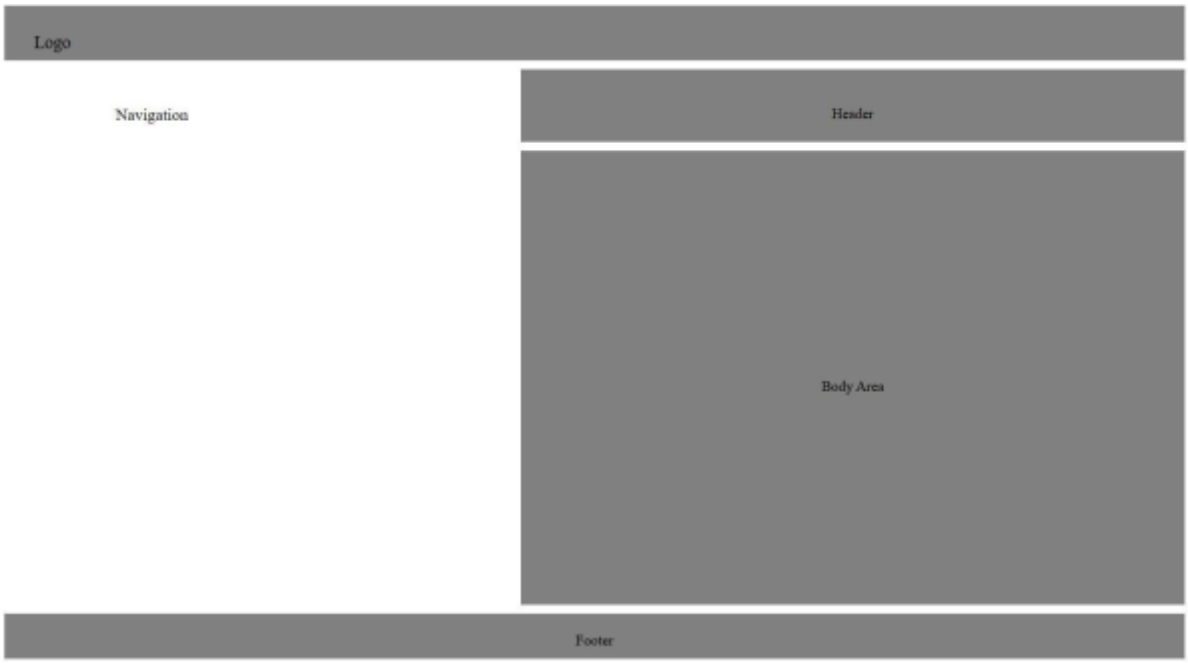


CODE :- <!DOCTYP
E html>

```
<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta http-equiv="X-UA-Compatible" content="IE=edge">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">     <title>Gray
Layout 3</title>

  <style>

     #r1{padding-top: 30px;height: 30px; margin-top: 10px;margin-left: 10%;width:
78%;paddingleft: 2%; background-color: gray;font-size: larger;}

     #r2 div{float: left;margin-left: 10%;margin-top: 10px;height: 40px;padding-top: 40px;
text-align: center;}

     #r2c1{ width: 20%;margin-right: 5%;font-size: large;}

     #r2c2{width: 45%; background-color: gray;}

     #r3{margin-bottom: 10px; margin-left: 45%;width: 45%; height: 250px;padding-top:
250px;textalign: center;background-color: gray;margin-top: 100px;}

     #r4{margin-left: 10%; width: 80%;text-align: center;padding-top: 20px;height:
30px;backgroundcolor: gray;}     </style>
</head>
```

```
<body>
   <div id="r1">Logo</div>
   <div id="r2">
      <div id="r2c1">Navigation</div>
      <div id="r2c2">Header</div>
   </div>
   <div id="r3">Body Area</div>
   <div id="r4">Footer</div>
</body>
</html>
```

OUTPUT :-



CODE :- <!DOCTYP
E html>

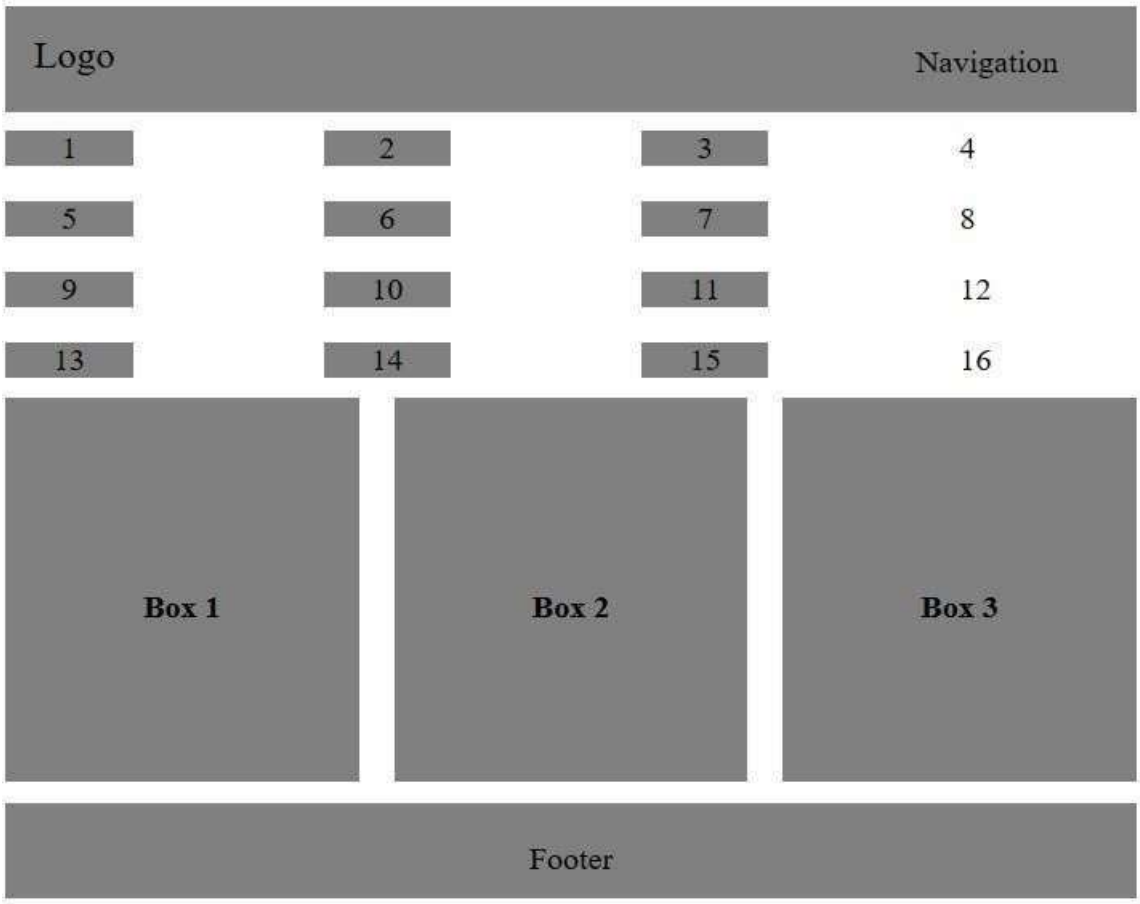
```
<html lang="en">

<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">     <title>Gray
Layout 4</title>
```

```
  <style>
    #r1{background-color: gray; width: 78%;padding-top: 15px;padding-left: 2%; marginleft:
10%; height: 40px;}
    #r1c1{float: left; font-size: larger;}
    #r1c2{margin-left:80%;padding-top: 5px;}

    #r3{margin-bottom: 10px;height: 100px; margin-left: 10%;margin-top: 10px;}
    #c1,#c2,#c3{float: left; background-color: gray; width: 10%;margin-right: 15%; textalign:
center;}
    #c5,#c6,#c7{float: left;background-color: gray; width: 10%; margin-right: 15%;text-align:
center;}      #c9,#c10,#c11{float: left;background-color: gray; width: 10%; margin-right:
15%;text-align:
center;}
    #c13,#c14,#c15{float: left;background-color: gray; width: 10%; margin-right:
15%;textalign: center;}

    #r4 div{float: left; background-color: gray; font-weight: bolder;}
    #r4c1{margin-left: 10%;text-align: center;width: 25%;height: 100px;margin-top:
10px;paddingtop: 100px;}
    #r4c2{margin-left: 2.5%;text-align: center;width: 25%;height: 100px;margin-top:
10px;paddingtop: 100px;}
    #r4c3{margin-left: 2.5%;text-align: center;width: 25%;height: 100px;margin-top:
10px;paddingtop: 100px;}
    #r5{width: 80%;margin-left: 10%;background-color: graY;margin-top: 250px;height:
30px;padding-top: 20px;text-align: center;}
  </style>
</head>

<body>
  <div id="r1">
    <div id="r1c1">Logo</div>
    <div id="r1c2">Navigation</div>
  </div>
```

```
  <div>
    <div></div>
  </div>
  <div id="r3">
    <div id="c1">1</div>
    <div id="c2">2</div>
    <div id="c3">3</div>
    <div id="c4">4</div><br>
    <div id="c5">5</div>
    <div id="c6">6</div>
    <div id="c7">7</div>
    <div id="c8">8</div><br>
    <div id="c9">9</div>
    <div id="c10">10</div>
    <div id="c11">11</div>
    <div id="c12">12</div><br>
    <div id="c13">13</div>
    <div id="c14">14</div>
    <div id="c15">15</div>
    <div id="c16">16</div>
  </div>


  <div id="r4">
    <div id="r4c1">Box 1</div>
    <div id="r4c2">Box 2</div>
    <div id="r4c3">Box 3</div>
  </div>
  <div id="r5">Footer</div>

</body>
```

</html>

OUTPUT:-



Practical – 25

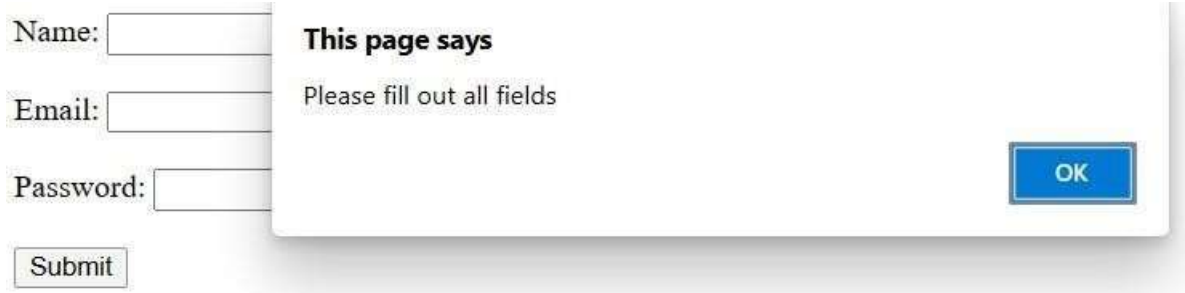
AIM :- Demonstrate JavaScript Form Validation with proper examples

CODE :- <!DOCTYP
E html>

```
<html>
 <head>
  <title>Basic Form Validation</title>
  <script>      function
validateForm() {
```

```
    var name =
document.forms["myForm"]["name"].value;      var email =
document.forms["myForm"]["email"].value;      var
password =
document.forms["myForm"]["password"].value;

    if (name == "" || email == "" || password == "") {

      alert("Please fill out all fields");
return false;

    }

   }

  </script>

 </head>

 <body>

  <form name="myForm" onsubmit="return validateForm()">

   <label for="name">Name:</label>

   <input type="text" id="name" name="name">

   <br><br>

   <label for="email">Email:</label>

   <input type="email" id="email" name="email">

   <br><br>

   <label for="password">Password:</label>

   <input type="password" id="password" name="password">

   <br><br>

   <input type="submit" value="Submit">

  </form>

 </body>

</html>
```

OUTPUT :-



Practical – 26

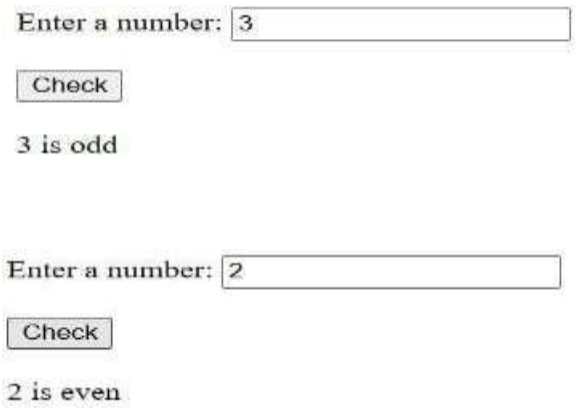
AIM :- Write a javascript to check if the number is even or odd.

CODE :- <!DOCTYP
E html>

```
<html>
 <head>
  <title>Even or Odd Checker</title>
  <script>
   function checkEvenOrOdd()
   {
    var number =
document.getElementById("number").value;       if (number%2==0)
    {
     document.getElementById("result").innerHTML = number + " is even";
    } else {
     document.getElementById("result").innerHTML = number + " is odd";
    }
   }
  </script>
 </head>
 <body>
```

```
  <label for="number">Enter a number:</label>
  <input type="number" id="number">
  <br><br>
  <button onclick="checkEvenOrOdd()">Check</button>
  <br><br>
  <div id="result"></div>
 </body>
</html>
```

OUTPUT :-



PRACTICAL – 27

AIM :- Create a page and access the LocationAPI

CODE :-

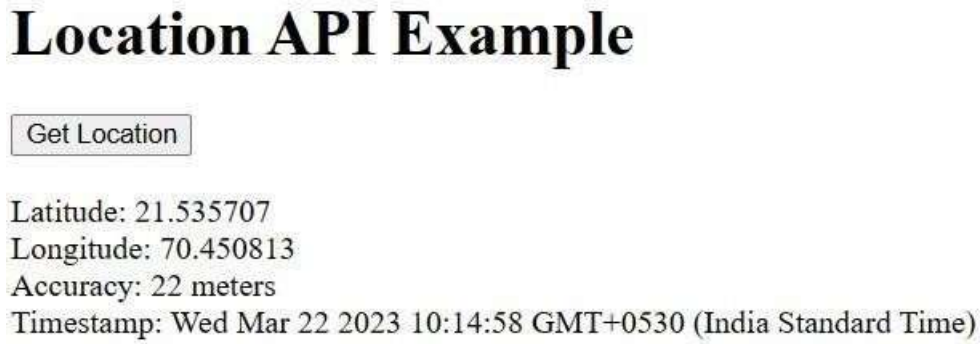
```
<!DOCTYP
E html>
<html>
 <head>
  <title>Location API Example</title>
  <script>
   function getLocation()
   {
    if (navigator.geolocation)
```

```
    {
      navigator.geolocation.getCurrentPosition(showPosition);
    }
e
ls
e
    {
      alert("Geolocation is not supported by this browser.");
    }
   }

   function showPosition(position)
   {
    var latitude =
position.coords.latitude;      var
longitude =
position.coords.longitude;      var accuracy =
position.coords.accuracy;      var timestamp = new
Date(position.timestamp);

    document.getElementById("latitude").innerHTML = "Latitude: " + latitude;
document.getElementById("longitude").innerHTML = "Longitude: " + longitude;
document.getElementById("accuracy").innerHTML = "Accuracy: " + accuracy + " meters";
document.getElementById("timestamp").innerHTML = "Timestamp: " + timestamp;
   }
  </script>
 </head>
 <body>
  <h1>Location API Example</h1>
  <button onclick="getLocation()">Get Location</button>
  <br><br>
  <div id="latitude"></div>
  <div id="longitude"></div>
  <div id="accuracy"></div>
  <div id="timestamp"></div>
```

</body>

</html>

OUTPUT :-



PRACTICAL – 28

AIM :- Create a simple XMLHTTPRequest,and retrieve the data from the text file.

CODE :- <!DOCTYP
E html>

```
<html>
 <head>
  <title>XMLHTTPRequest Example</title>
  <script>
function loadData()
   {
     var xhr = new XMLHttpRequest();
xhr.open('GET', 'example.txt');
     xhr.onreadystatechange = function()
     {
      if (xhr.readyState === XMLHttpRequest.DONE)
      {
       if (xhr.status === 200)
```

```
        {
          var response = xhr.responseText;
document.getElementById('output').innerHTML = response;
        }
els
e
        {
          document.getElementById('output').innerHTML = 'Error: ' + xhr.status;
        }
       }
      };
      xhr.send();
    }
  </script>
 </head>
 <body>
  <h1>XMLHTTPRequest Example</h1>
  <button onclick="loadData()">Load Data</button>
  <br><br>
  <div id="output"></div>
 </body>
</html>
```

OUTPUT :-