



**SILVER OAK
UNIVERSITY**
EDUCATION TO INNOVATION

OJT PRACTICALS (INTERNSHIP - II)

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SUBJECT OJT PRACTICALS (INTERNSHIP - II)

COLLEGE NAME: ASOIT

COURSE: B.TECH(CE)

LAB :LAB-3

**+1ST QUESTIONS OF PRACTICAL OF LAB-3 THEN
LAB -2**



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OJT- Practical

C and C++ Practicals

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

Code:

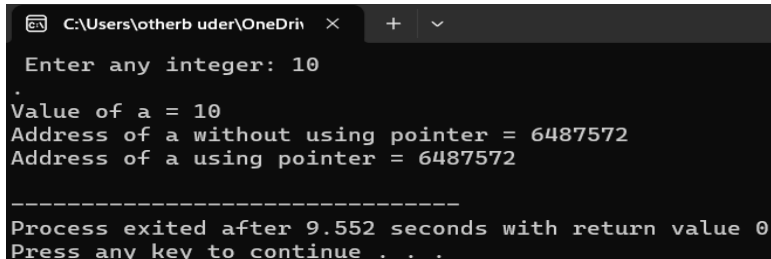
```
#include <stdio.h>

int main( )
{
    int a ;
    int *ptr ;
    printf(" Enter any integer: ");
    scanf("%d",&a) ;
    ptr = &a ;

    printf("Value of a = %d\n", *ptr);
    printf("Address of a without using pointer = %d\n", &a);
    printf("Address of a using pointer = %d\n", ptr);
```

```
return 0 ;  
}
```

Output :



```
C:\Users\otherb uder\OneDri  ×  +  v  
Enter any integer: 10  
.  
Value of a = 10  
Address of a without using pointer = 6487572  
Address of a using pointer = 6487572  
-----  
Process exited after 9.552 seconds with return value 0  
Press any key to continue . . .
```

Aim : Write a C program to create a Calculator using a pointer.

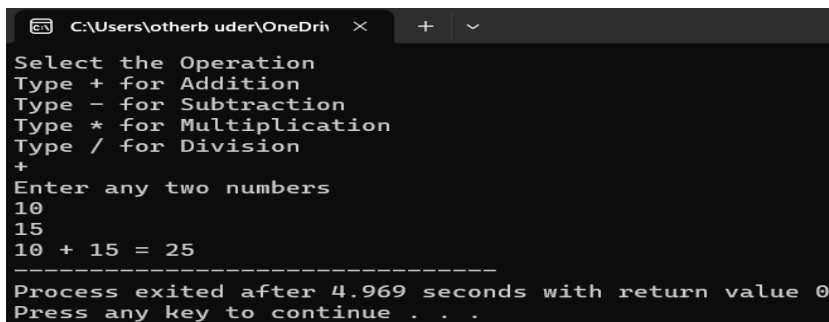
Code :

```
#include<stdio.h>  
#include<stdlib.h>  
int main()  
{  
    int a,b;  
    int *p1,*p2;  
    char ch;  
    p1=&a;  
    p2=&b;  
    printf("Select the Operation\n");  
    printf("Type + for Addition\n");  
    printf("Type - for Subtraction\n");
```

```
printf("Type * for Multiplication\n");
printf("Type / for Division\n");
scanf("%c",&ch);
printf("Enter any two numbers\n");
scanf("%d%d",&a,&b);
switch(ch)
{
case '+':
    printf("%d + %d = %d",a,b,(*p1+*p2));
    break;
case '-':
    printf("%d - %d = %d",a,b,(*p1-*p2));
    break;
case '*':
    printf("%d * %d = %d",a,b,(*p1**p2));
    break;
case '/':
    if(*p2==0)
    {
        printf("Sorry, You can not divide a number by 0");
        return 0;
    }
}
```

```
}  
printf("%d / %d = %0.2f",a,b,(*p1/(float)*p2));  
break;  
default:  
printf("Sorry, Invalid Choice");  
}  
return 0;  
}
```

Output:



```
Select the Operation  
Type + for Addition  
Type - for Subtraction  
Type * for Multiplication  
Type / for Division  
+  
Enter any two numbers  
10  
15  
10 + 15 = 25  
-----  
Process exited after 4.969 seconds with return value 0  
Press any key to continue . . .
```

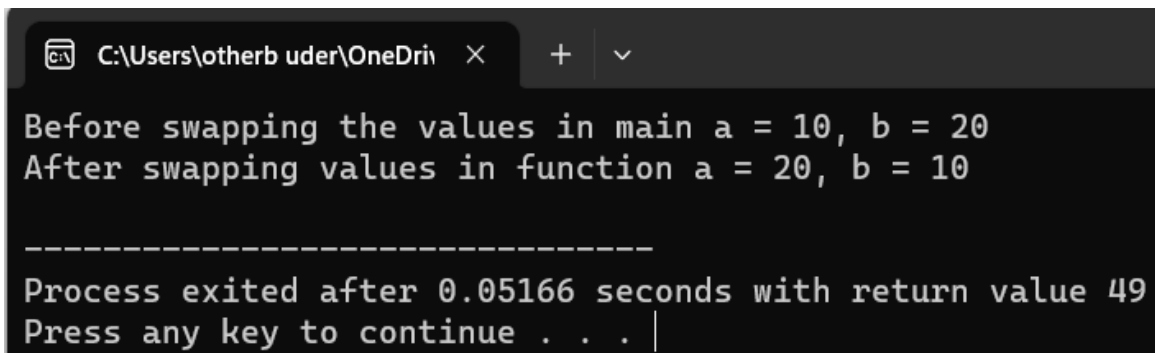
Aim : Write a C program to swap the two values using call by value and call by reference.

Code: Swap value using Call by Value

```
#include <stdio.h>  
  
void swap(int , int);  
  
int main()  
{  
    int a = 10;  
    int b = 20;
```

```
printf("Before swapping the values in main a = %d, b = %d\n",a,b);  
swap(a,b);  
}  
  
void swap (int a, int b)  
{  
    int temp;  
    temp = a;  
    a=b;  
    b=temp;  
    printf("After swapping values in function a = %d, b = %d\n",a,b);  
}
```

Output :



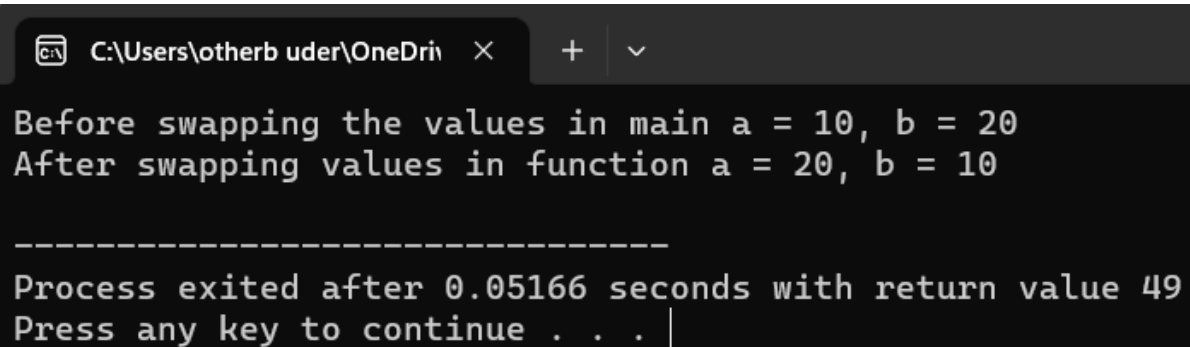
```
C:\Users\otherb uder\OneDri  ×  +  ∨  
  
Before swapping the values in main a = 10, b = 20  
After swapping values in function a = 20, b = 10  
  
-----  
Process exited after 0.05166 seconds with return value 49  
Press any key to continue . . . |
```

Code: Swap value using Call by reference

```
#include <stdio.h>  
  
void swap(int *, int *);  
  
int main()  
{  
    int a = 10;  
    int b = 20;
```

```
printf("Before swapping the values in main a = %d, b = %d\n",a,b);  
swap(&a,&b);  
  
}  
void swap (int *a, int *b)  
{  
    int temp;  
    temp = *a;  
    *a=*b;  
    *b=temp;  
    printf("After swapping values in function a = %d, b = %d\n",*a,*b);  
  
}
```

Output:



```
C:\Users\otherb uder\OneDri  X  +  v  
Before swapping the values in main a = 10, b = 20  
After swapping values in function a = 20, b = 10  
-----  
Process exited after 0.05166 seconds with return value 49  
Press any key to continue . . . |
```

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:

Output :

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

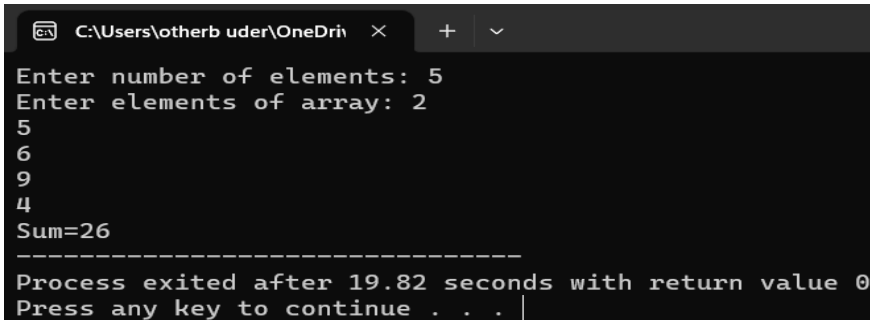
Code:

```
#include<stdio.h>
#include<stdlib.h>
int main(){
    int n,i,*ptr,sum=0;
    printf("Enter number of elements: ");
    scanf("%d",&n);
    ptr=(int*)calloc(n,sizeof(int));
    if(ptr==NULL)
    {
        printf("Sorry! unable to allocate memory");
        exit(0);
    }
    printf("Enter elements of array: ");
    for(i=0;i<n;++i)
    {
        scanf("%d",ptr+i);
        sum+=*(ptr+i);
    }
    printf("Sum=%d",sum);
}
```



```
free(ptr);  
return 0;  
}
```

Output:



```
C:\Users\otherb uder\OneDri x + v  
Enter number of elements: 5  
Enter elements of array: 2  
5  
6  
9  
4  
Sum=26  
-----  
Process exited after 19.82 seconds with return value 0  
Press any key to continue . . . |
```

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 * f1, * f2, * f3;  
    int number, i, n = 10;  
    printf("Contents of DATA file\n\n");  
    f1 = fopen("DATA", "w");  
    for (i = 0; i < n; i++) {  
        scanf("%d", & number);  
        if (number == -1) {
```

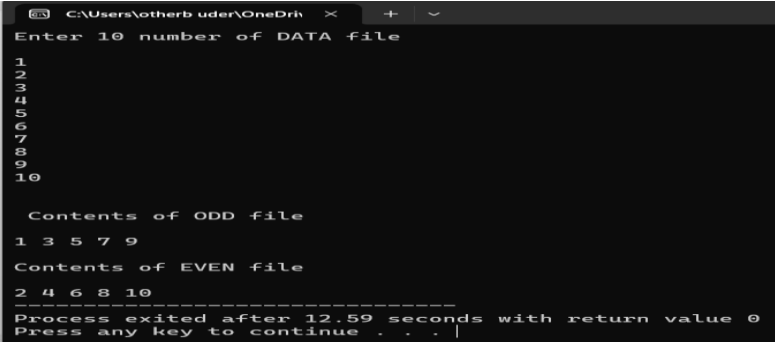
```
break;
}
putw(number, f1);
}
fclose(f1);

f1 = fopen("DATA", "r");
f2 = fopen("ODD", "w");
f3 = fopen("EVEN", "w");

while ((number = getw(f1)) != EOF) {
    if (number % 2 == 0) {
        putw(number, f3);
    } else {
        putw(number, f2);
    }
}
fclose(f1);
fclose(f2);
fclose(f3);
f2 = fopen("ODD", "r");
f3 = fopen("EVEN", "r");
printf("\n\n Contents of ODD file \n\n");
while ((number = getw(f2)) != EOF) {
```

```
printf("%d ", number);  
}  
printf("\n\nContents of EVEN file \n\n");  
  
while ((number = getw(f3)) != EOF) {  
    printf("%d ", number);  
}  
  
fclose(f2);  
fclose(f3);  
return 0;  
}
```

Output:



```
C:\Users\otherb uder\OneDri  
Enter 10 number of DATA file  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
  
Contents of ODD file  
1 3 5 7 9  
Contents of EVEN file  
2 4 6 8 10  
-----  
Process exited after 12.59 seconds with return value 0  
Press any key to continue . . . |
```

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

Code:

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

```
int main() {  
  
    int i, n;  
    bool is_prime = true;  
  
    cout << "Enter a positive integer: ";  
    cin >> n;  
    if (n == 0 || n == 1) {  
        is_prime = false;  
    }  
    for (i = 2; i <= n/2; ++i) {  
        if (n % i == 0) {  
            is_prime = false;  
            break;  
        }  
    }  
    if (is_prime)  
        cout << n << " is a prime number";  
    else  
        cout << n << " is not a prime number";  
  
    return 0;  
}
```

Output:

```
C:\Users\otherb uder\OneDri  X  +  v
Enter a positive integer: 71
71 is a prime number
-----
Process exited after 3.219 seconds with return value 0
Press any key to continue . . . |
```

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 c;
```

```
    bool isVowel = false;
```

```
    cout << "Enter a character: ";
```

```
    cin >> c;
```

```
    switch(c) {
```

```
        case 'a':
```

```
        case 'e':
```

```
        case 'i':
```

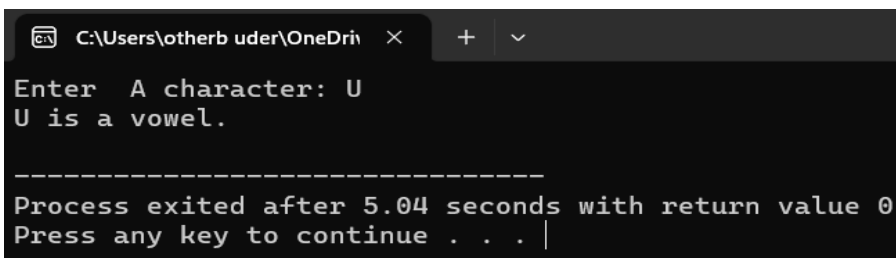
```
        case 'o':
```

```
        case 'u':
```

```
        case 'A':
```

```
case 'E':  
case 'I':  
case 'O':  
case 'U':  
    isVowel = true;  
}  
if (isVowel) {  
    cout << c << " is a vowel." << endl;  
} else {  
    cout << c << " is a consonant." << endl;  
}  
  
return 0;  
}
```

Output:



```
C:\Users\otherb uder\OneDri  x  +  v  
Enter A character: U  
U is a vowel.  
-----  
Process exited after 5.04 seconds with return value 0  
Press any key to continue . . . |
```

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

Code:

```
#include <iostream>
```

```
using namespace std;

class Rectangle {
    public:
        float length, breadth;
    public:
        Rectangle() {
            cout << "\n Inside the Constructor\n";
            length = 2;
            breadth = 4;
        }
    public:
        ~Rectangle() {
            cout << "\n Inside the Destructor \n";
        }
};

int main() {
    Rectangle rect;

    cout << "\nThe Length of the Rectangle set by the Constructor is = "
    << rect.length << "\n";

    cout << "\nThe Breadth of the Rectangle set by the Constructor is = "
    << rect.breadth << "\n";

    return 0;
}
```

Output:

```
C:\Users\otherb uder\OneDri × + v
Inside the Constructor
The Length of the Rectangle set by the Constructor is = 2
The Breadth of the Rectangle set by the Constructor is = 4
Inside the Destructor
-----
Process exited after 0.06125 seconds with return value 0
Press any key to continue . . .
```

Aim : Write a C++ program to implement Multilevel Inheritance

Code:

```
#include <iostream>
using namespace std;
class A {
public:
int a;
void get_A_data()
{
    cout << "Enter value of a: ";
    cin >> a;
}
};
class B : public A {
public:
int b;
```



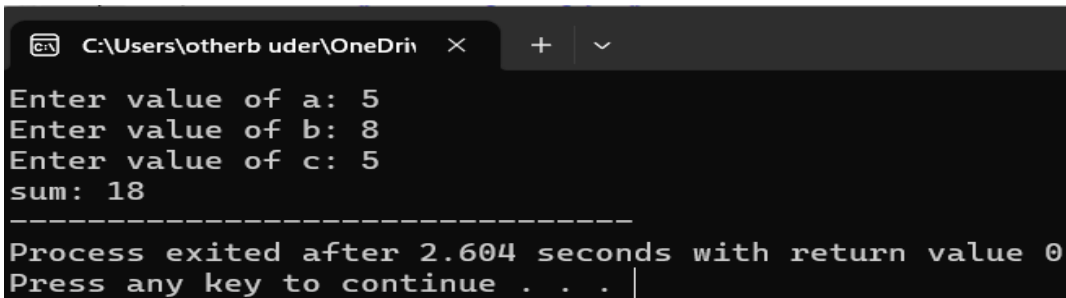
```
void get_B_data()
{
    cout << "Enter value of b: ";
    cin >> b;
}
};
```

```
class C : public B {
private:
    int c;

public:
    void get_C_data()
    {
        cout << "Enter value of c: ";
        cin >> c;
    }
    void sum()
    {
        int ans = a + b + c;
        cout << "sum: " << ans;
    }
};
```

```
int main()
{
    C obj;
    obj.get_A_data();
    obj.get_B_data();
    obj.get_C_data();
    obj.sum();
    return 0;
}
```

Output:



```
C:\Users\otherb uder\OneDri
Enter value of a: 5
Enter value of b: 8
Enter value of c: 5
sum: 18
-----
Process exited after 2.604 seconds with return value 0
Press any key to continue . . . |
```

Aim: Write a C++ program to overload binary + operator.

Code:

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

class complex
{
    private:
```

```
int real,imag;

public:

void getvalue()
{
    cout<<"Enter the value of real number:";
    cin>>real;
    cout<<"Enter the value of imaginary number:";
    cin>>imag;
}

complex operator+(complex obj)
{
    complex temp;
    temp.real=real+obj.real;
    temp.imag=imag+obj.imag;
    return(temp);
}

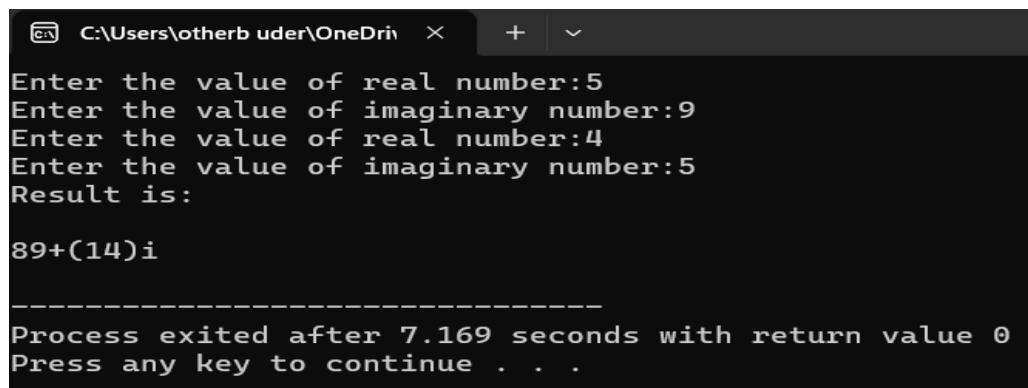
void display()
{
    cout<<real<<"+"<<"("<<imag<<")"<<"i"<<"\n";
}

};

int main()
```

```
{  
    complex c1,c2,c3;  
  
    c1.getvalue();  
    c2.getvalue();  
  
    c3 = c1+c2;  
  
    cout<<"Result is:\n\n8";  
    c3.display();  
    return 0;  
}
```

Output:



```
C:\Users\otherb uder\OneDri  ×  +  v  
Enter the value of real number:5  
Enter the value of imaginary number:9  
Enter the value of real number:4  
Enter the value of imaginary number:5  
Result is:  
  
89+(14)i  
-----  
Process exited after 7.169 seconds with return value 0  
Press any key to continue . . .
```

Aim: Write a C++ program to understand the concept of run time polymorphism.

Code:

```
#include <iostream>

using namespace std;

class Base {

public:

virtual void funct1()
{
    cout << "Base::funct1() is called\n";
}

virtual void funct2(int x)
{
    cout << "Base's Val of x:"
        << x << endl;
}

void funct3()
{
    cout << "Base is the Parent class!"
        << endl;
```

```
}
```

```
};
```

```
class Derived : public Base {
```

```
private:
```

```
void funct1()
```

```
{
```

```
    cout << "Derived::funct1() is called\n";
```

```
}
```

```
void funct2(int x)
```

```
{
```

```
    cout << "Derived Class's Val of x:"
```

```
        << x << endl;
```

```
}
```

```
void funct3()
```

```
{
```

```
    cout << "It's the Derived class's"
```

```
        << " funct3() called!" << endl;
```

```
}
```

```
};
```

```
int main()
```

```
{
```

```
Base* bptr = new Derived();
```

```
bptr->funct1();
```

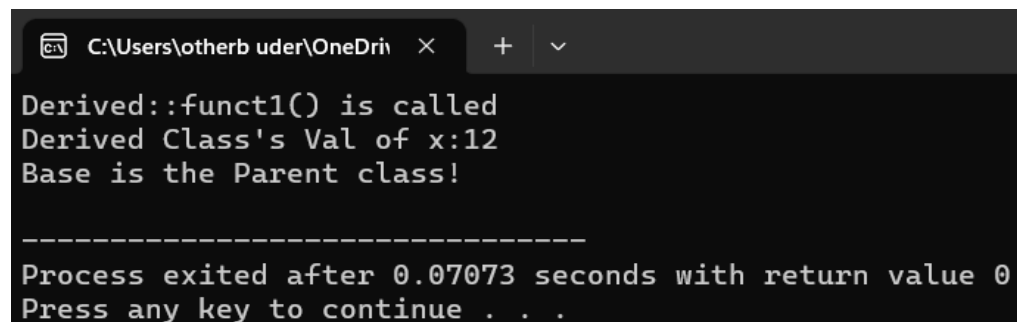
```
bptr->funct2(12);
```

```
bptr->funct3();
```

```
return 0;
```

```
}
```

Output:



```
C:\Users\otherb uder\OneDri  X + v  
Derived::funct1() is called  
Derived Class's Val of x:12  
Base is the Parent class!  
-----  
Process exited after 0.07073 seconds with return value 0  
Press any key to continue . . .
```

HTML, CSS and JS Practicals

Aim : Make a Resume using the HTML tags without CSS ?

Code:

```
<!DOCTYPE html>
<html >
<head>
  <title>RESUME OM</title>
</head>

<body>
  <h1 style="text-align: center;"><u>Resume</u></h1>
  
  <h2>Om Prakash</h2>
  <p>Email:omprakash31181@gmail.com<br />
    Mobile:9006622732<br />
    Address:silver oak university ,ahmedabad<br />

  </p>
  <hr />
  <h2><u>OBJECETIVE</u></h2>
  <p>My goal is to associate myself with a company where i can utilize my
skills and gain further experience while
    enchancing the company's productivity and reputaion.</p>
  <hr />
  <h2><u>EDUCATION</u></h2>
  <ul>
    <li>
      <h4>B. Tech Computer Engineering 2022 - 2026</h4>
      <p>Aditya Silver Oak Institute of Technology Ahmedabad<br />(
Pursuing )
    </p>
    </li>
    <li>
      <h4>12th (State Board) 2020-2022 </h4>
      </li>
      <p>J.K.Y Senior Secondary School - Gaya</p>
      <li>
        <h4>10th (CBSE) 2019-2020</h4>
        </li>
        <p>Gurukul - Sherghati</p>
      </li>
    </ul>
  <hr />
```



```

<h2><u>SKILLS</u></h2>
<p> Soft Skills :<br />
    • Communication<br />
    • Flexible and Adaptable<br />
    Teamwork<br />
    • Problem-Solving<br />
    • Critical Thinking<br /><br />
    Technical Skills :<br />
    HTML<br /> css<br />
    BOOTSTRAP <br />JAVASCRIPT<br />
</p>

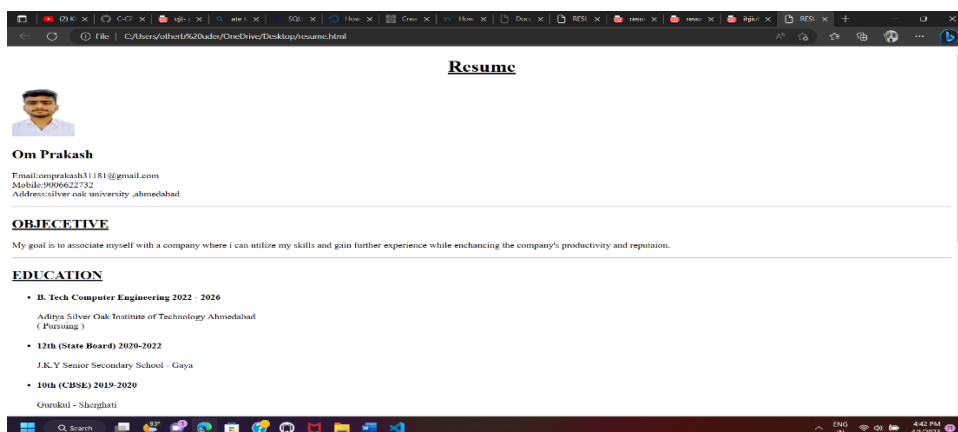
<h2></h2>

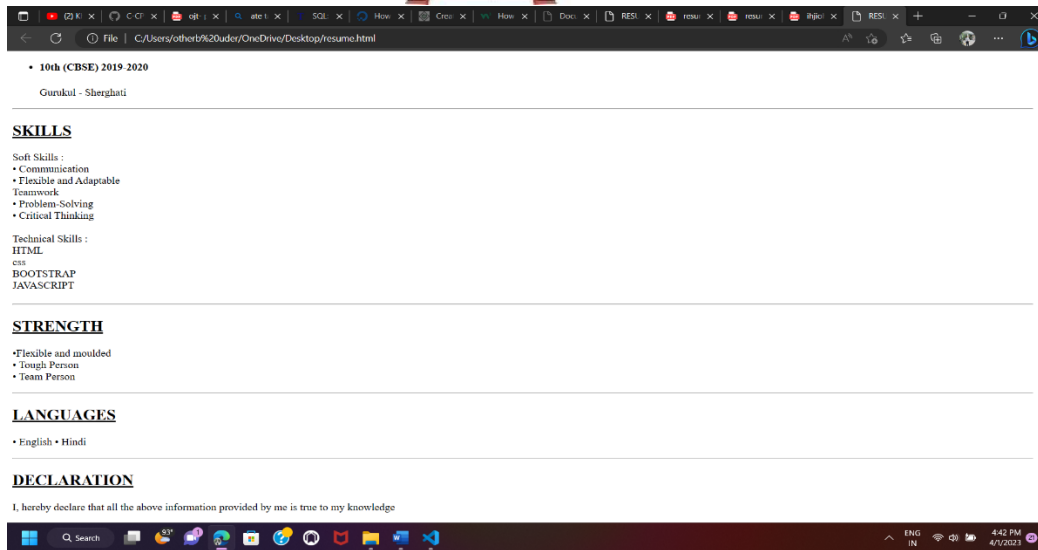
<hr />
<h2><u>STRENGTH</u></h2>
<p> •Flexible and moulded <br />
    • Tough Person<br />
    • Team Person<br />
</p>
<hr />
<h2><u>LANGUAGES</u></h2>
<p> • English
    • Hindi
</p>
<hr />
<h2><u>DECLARATION</u></h2>
<p>I, hereby declare that all the above information provided by me is true
to my knowledge</p>
</body>

</html>

```

Output:





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: yash

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

Age: 18

Enter details for person 2:

Name: rutu

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

Age: 24

Enter details for person 3:

Name: Guddu

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

Age: 18

Enter details for person 4:

Name: Aditya

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<iostream>
#include<string> 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:
MyClass
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
{
public:
void draw()
{
    cout<<"Drawing a circle"<<endl;
}
};

class Rectangle:public Shape
{
public:
void draw()
{
    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'),

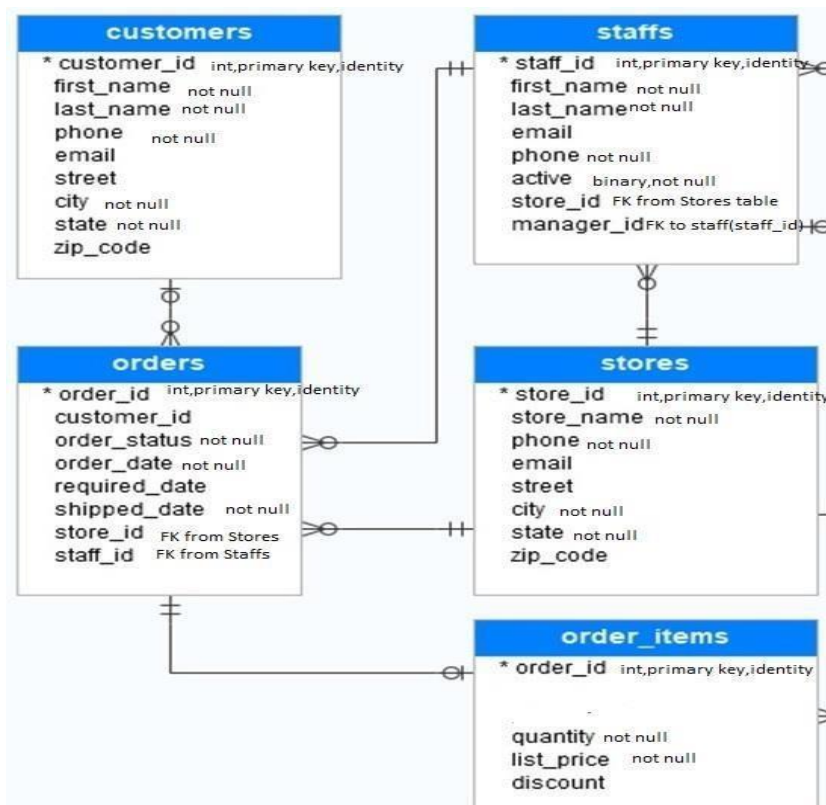
('vijay', 'andheri', 8000.00, '2006-09-17'),

('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 constraints 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 increased 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 :- <!DOCTYPE

E html>

<html>

<head>

<title>My Resume</title>

</head>

<body>

<h1>Bitttu Kumar</h1>

<div>Website designer</div>

<div>bittukumar1668616@gmail.com</div>

<div>8002704205</div>

<div>Ahmedabad, Gujarat</div>

<h3>Objective</h3>

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

<h3>Education</h3>

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

12th Gurukul Mission Sr.sec. School UP 2020-2021

10th Smart Move Academy , 2018-2029

<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>

Bitttu Kumar

Website designer
bittukumar1668616@gmail.com
8002704205
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 Gurukul Mission Sr.sec. School UP 2020-2021
- 10th Smart Move Academy , 2018-2029

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
-

Practical – 19

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

CODE :- <!DOCTYPE

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>
```

<table> <tr> <td>Pratyasha Jain</td></tr> <tr> <td>Impact of Social Media on Adolescents</td></tr> <tr> <td>March 1, 2023</td></tr> </table>	Pratyasha Jain	Impact of Social Media on Adolescents	March 1, 2023
Pratyasha Jain			
Impact of Social Media on Adolescents			
March 1, 2023			
<table> <tr> <td>K. Vijayaraghavan</td></tr> <tr> <td>The Role of Nutrition in Aging</td></tr> <tr> <td>Sep 22, 2008</td></tr> </table>	K. Vijayaraghavan	The Role of Nutrition in Aging	Sep 22, 2008
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.
Pratyasha Jain	Social media use may contribute to increased rates of anxiety and depression among adolescents.

<td>K. Vijayaraghavan</td>

<td class="highlight">Proper nutrition can help slow the aging process and prevent age-related 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
Pratyasha 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.
Pratyasha 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 { 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;  
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"] {  
  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;  
  fontsize:  
  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> Bittu Kumar</td>
<td>bittu@example.com</td>
<td>8002704205</td>
</tr>
<tr>
<td>Rana Jee</td>
<td>ranajee@example.com</td> <td>7070603571</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 :-

Table and Form

Name	Email	Phone
Bittu Kumar	bittu@example.com	8002704205
Rana Jee	ranajee@example.com	7070603571

Contact Form

Name

Please enter your name

Email

Please enter a valid email address

Message

Please enter a message

Send

Practical – 21

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

CODE :- <!DOCTYPE

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 :-

Registration Form

Username:

Password:

Email:

Phone:

Age:

Submit

Practical – 23

AIM : Make a Resume using the HTML tags with CSS.

CODE :- <!DOCTYPE

E html>

<html>

<head>

<title>Resume</title>

<style

> body

{



```
font-family: Arial,
sans-serif;
font-size: 16px;
line-height: 1.6;
color: #333;

}

h1, h2, h3 {    margin-top:
0;

}

h1 {
font-size:
36px;
color:
#0077b5;

}

h2 {
font-size:
28px;
color:
#222;

}

h3 {
font-size:
24px;
color:
#555;

}    p
{
margin:
0;
}

.container {    max-width:
800px;    margin:
0 auto;
padding: 20px;

}
```



```
.header {    text-align: center;
margin-bottom: 30px;
}
```

```
.header h1 {
margin-bottom: 10px;
}
```

```
.contact-info {    margin-bottom: 30px;
}
```

```
.contact-info p {
margin-bottom: 10px;
}
```

```
.section {
margin-bottom: 30px;
}
```

```
.section h2 {
    margin-bottom: 20px;
}
```

```
.section ul {
list-style: none;    margin: 0;
    padding: 0;
}
```

```
.section li {
    margin-bottom: 10px;
}
```

```
.section li span {
display: inline-
```

```
block;    width:
150px;
```

```
    font-weight: bold;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div class="container">
```

```
<div class="header">
```

```
<h1>Bittu Kumar </h1>
```

```
<p>Web Developer</p>
```

```
</div>
```

```
<div class="contact-info">
```

```
<p><strong>Email:</strong> bittukumar1668616@example.com</p>
```

```
<p><strong>Phone:</strong> 8002704205</p>
```

```
<p><strong>Website:</strong> crazycodes.com</p>
```

```
</div>
```

```
<div class="section">
```

```
<h2>Summary</h2>
```

```
<p>Software developer with 5 years of experience creating dynamic web applications.
Skilled in HTML, CSS, JavaScript, and various web frameworks. Passionate about developing
clean, efficient code and delivering engaging user experiences.</p>
```

```
</div>
```

```
<div class="section">
```

```
<h2>Skills</h2>
```

```
<ul>
```

```
<li><span>HTML:</span> Advanced</li>
```

```
<li><span>CSS:</span> Advanced</li>
```

```
<li><span>JavaScript:</span> Advanced</li>
```

```

<li><span>React:</span> Intermediate</li>
<li><span>Angular:</span> Intermediate</li>
<li><span>Vue:</span> Beginner</li>
</ul>
</div>

<div class="section">
<h2>Experience</h2>
<ul>
<li>
<span>Web Developer</span>
<p>Google corp</p>
<p>January 2023 - Present</p>
<ul>
<li>Develop and maintain company website using HTML, CSS, and JavaScript</li>
<li>Create and manage databases using MySQL
</li>
</ul>
</li>
</ul>
</div>
</html>

```

OUTPUT:-



Guddu giri

web Developer

Email: guddugiri216@example.com

Phone: 7985248023

Website: crazycodes.com

Summary

Software developer with 5 years of experience creating dynamic web applications. Skilled in HTML, CSS, JavaScript, and various web frameworks. Passionate about developing clean, efficient code and delivering engaging user experiences.

Skills

HTML:	Advanced
CSS:	Advanced
JavaScript:	Advanced
React:	Intermediate
Angular:	Intermediate
Vue:	Beginner

Experience

Web Developer

Google corp

January 2023 - Present

Develop and maintain company website using HTML, CSS, and JavaScript

Create and manage databases using MySQL

Practical – 24

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

CODE :- <!DOCTYPE

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;padding-left:
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; text-align:
center;}

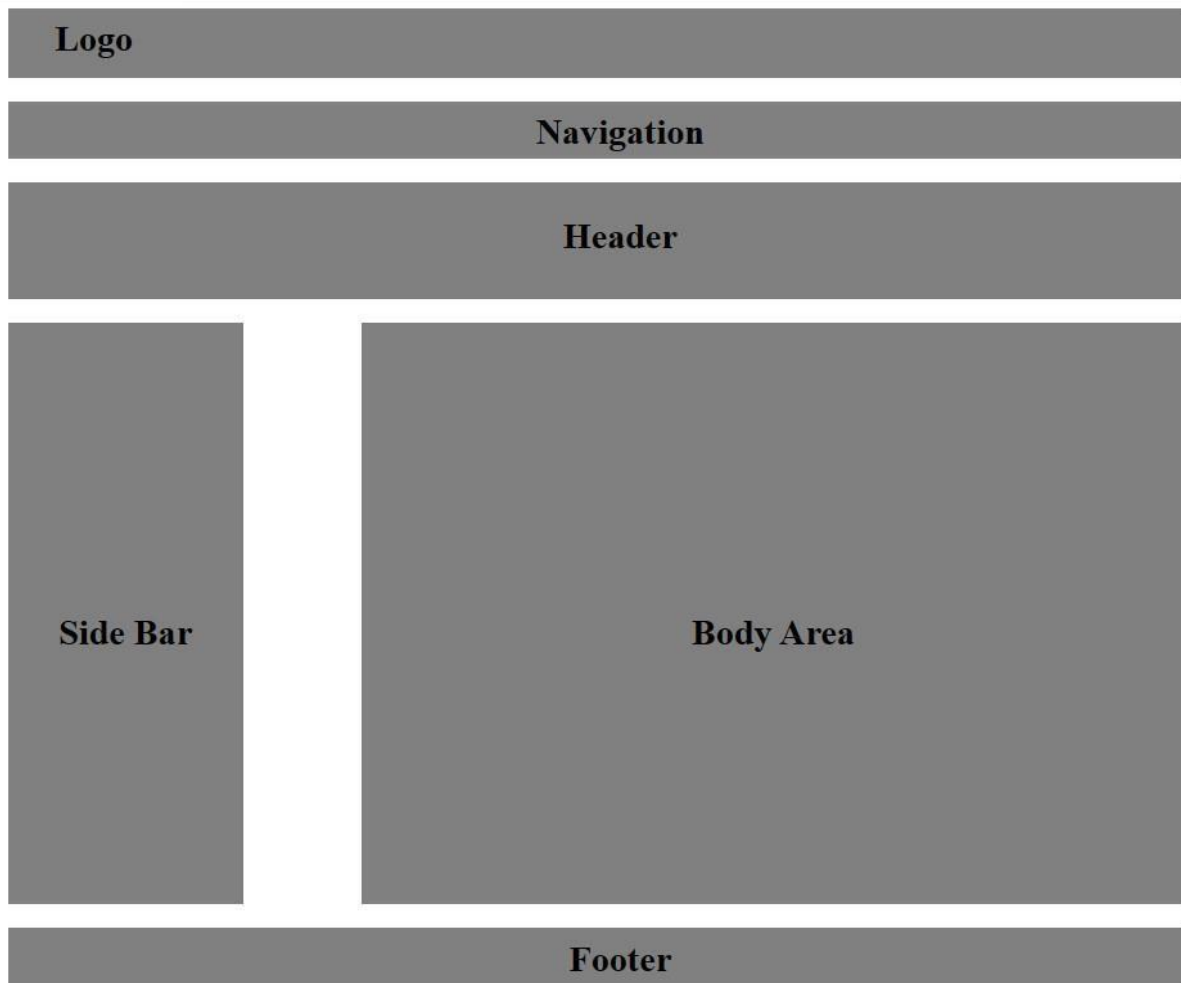
    #r4c1{width: 10%; margin-right: 5%; }

    #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 :- <!DOCTYPE

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; background-color: 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>
```

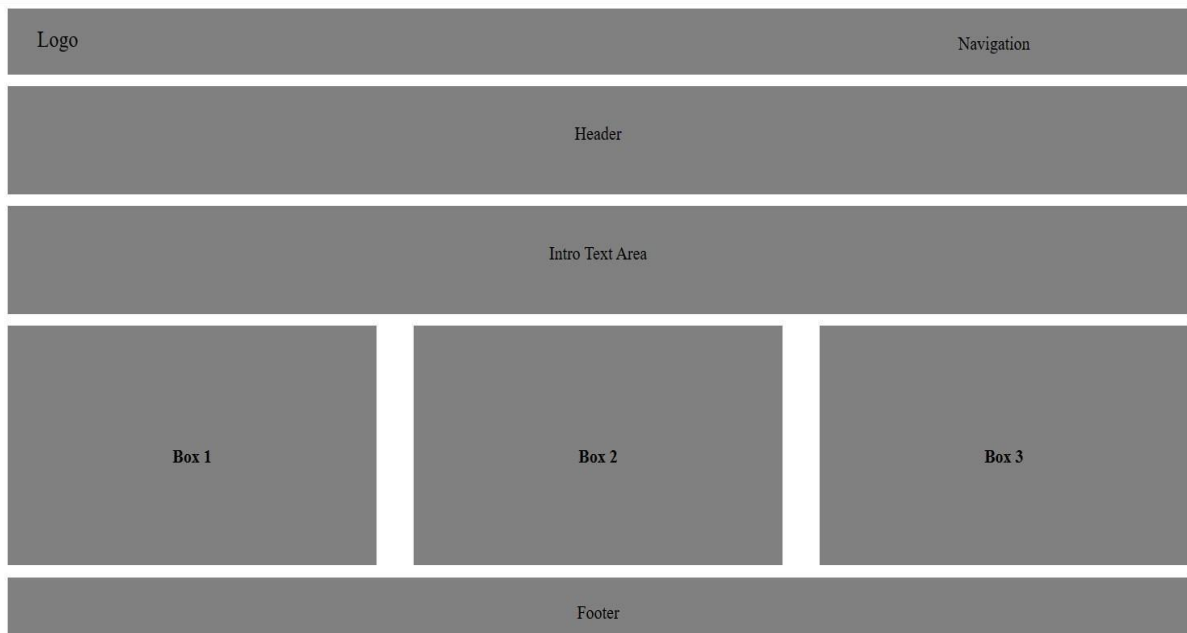
```
</div>
```

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

```
</body>
```

```
</html>
```

OUTPUT :-



CODE :- <!DOCTYPE

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%;padding-left: 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;}

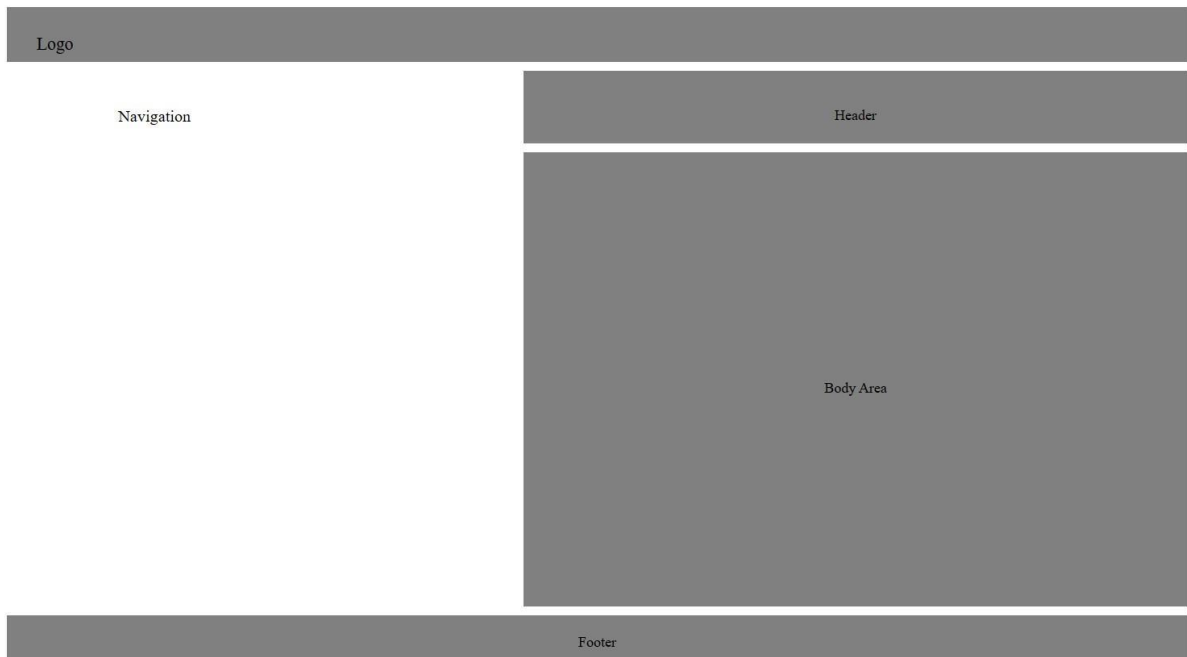
#r3{margin-bottom: 10px; margin-left: 45%;width: 45%; height: 250px;padding-top: 250px;text-align: center;background-color: gray;margin-top: 100px;}

#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 :- <!DOCTYPE
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:-

Logo			Navigation
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
Box 1		Box 2	Box 3
Footer			

Practical – 25

AIM :- Demonstrate JavaScript Form Validation with proper examples

CODE :- <!DOCTYPE

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 :-

Name:

Email:

Password:

This page says

Please fill out all fields

Practical – 26

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

CODE :- <!DOCTYPE

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 :-

Enter a number:

3 is odd

Enter a number:

2 is even

PRACTICAL – 27

AIM :- Create a page and access the LocationAPI

CODE :- <!DOCTYPE

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 :-

Location API Example

Get Location

Latitude: 21.535707

Longitude: 70.450813

Accuracy: 22 meters

Timestamp: Wed Mar 22 2023 10:14:58 GMT+0530 (India Standard Time)

PRACTICAL – 28

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

CODE :- <!DOCTYPE

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;
}
else
{
    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 :-

XMLHttpRequest Example

Load Data

Error: 0