

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

CODE:

```
#include <stdio.h>
int main() {
int num = 42;
int *ptr = &num;
    printf("The address of num is: %p", ptr);
return 0;
}
```

OUTPUT:

The address of num is: 0x7fff71670cbc



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

```
#include <stdio.h>
 int main() {
 double num1, num2, result;
 char op;
 double *ptr1, *ptr2, *ptr_result;
ptr1 = &num1;
ptr2 = &num2;
 ptr_result = &result;
 printf("Enter first number: ");
 scanf("%lf", ptr1);
 printf("Enter operator (+, -, *, /): ");
 scanf(" %c", &op);
 printf("Enter second number: ");
 scanf("%lf", ptr2);
switch(op) {
  case '+':
   *ptr_result = *ptr1 + *ptr2;
   break;
  case '-':
   *ptr result = *ptr1 - *ptr2;
```



```
break;
  case '*':
   *ptr_result = *ptr1 * *ptr2;
   break;
  case '/':
   *ptr_result = *ptr1 / *ptr2;
   break;
  default:
   printf("Invalid operator\n");
return 1;
 }
printf("%.2lf %c %.2lf = %.2lf\n", *ptr1, op, *ptr2, *ptr_result);
 return 0;}
OUTPUT:
Enter first number: 5
Enter operator (+, -, *, /): *
Enter second number: 5
5.00 * 5.00 = 25.00
```



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

```
#include <stdio.h>
// function prototype for call by value
void swapByValue(int x, int y);
// function prototype for call by reference
void swapByReference(int *x, int *y);
int main() {
  int a = 10, b = 20;
// call swapByValue
  printf("Before swapByValue: a = %d, b = %d\n", a, b);
  swapByValue(a, b);
  printf("After swapByValue: a = %d, b = %d n", a, b);
// call swapByReference
  printf("Before swapByReference: a = %d, b = %d n", a, b);
  swapByReference(&a, &b);
  printf("After swapByReference: a = \%d, b = \%d\n", a, b);
  return 0;
// function definition for call by value
```



```
void swapByValue(int x, int y) {
  int temp = x;
  x = y;
  y = temp;
}
// function definition for call by reference
void swapByReference(int *x, int *y) {
  int temp = *x;
  *x = *y;
  *y = temp;
}
OUTPUT:
Before swapByValue: a = 10, b = 20
After swapByValue: a = 10, b = 20
Before swapByReference: a = 10, b = 20
After swapByReference: a = 20, b = 10
```



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.

```
#include <stdio.h>
#include <stdlib.h>
struct personal {
 char name[50];
 int birth_year;
 int birth month;
 int birth_day;
 int age;
};
int main() {
 struct personal people[4];
// Read information for each person
 for (int i = 0; i < 4; i++) {
  printf("Enter name for person %d: ", i+1);
  fgets(people[i].name, 50, stdin);
  printf("Enter birth year for person %d: ", i+1);
  scanf("%d", &people[i].birth_year);
  printf("Enter birth month for person %d: ", i+1);
```



```
scanf("%d", &people[i].birth month);
  printf("Enter birth day for person %d: ", i+1);
  scanf("%d", &people[i].birth day);
 // Calculate age
  int current year = 2023;
  int current_month = 4;
  int current day = 7;
  int age = current_year - people[i].birth_year;
  if (current_month < people[i].birth_month | |
    (current_month == people[i].birth_month && current_day <</pre>
people[i].birth_day)) { age--;}
  people[i].age = age;
// Clear the input buffer
  while ((getchar()) != '\n');
 }
// Display information for each person
 for (int i = 0; i < 4; i++) {
  printf("Person %d:\n", i+1);
  printf("Name: %s", people[i].name);
  printf("Date of birth: %d-%02d-%02d\n", people[i].birth year,
people[i].birth_month, people[i].birth_day);
  printf("Age: %d\n", people[i].age);
 }
return 0;
OUTPUT:
Enter name for person 1: Aman
```



Enter birth year for person 1: 2005

Enter birth month for person 1:06

Enter birth day for person 1: 03

Enter name for person 2: Nikhil

Enter birth year for person 2: 2004

Enter birth month for person 2: 12

Enter birth day for person 2:01

Enter name for person 3: pradip

Enter birth year for person 3: 2005

Enter birth month for person 3: 06

Enter birth day for person 3: 25

Enter name for person 4: RIYAN

Enter birth year for person 4: 2006

Enter birth month for person 4: 09

Enter birth day for person 4: 09

Person 1:

Name: Aman

Date of birth: 2004-06-03

Age: 19

Person 2:

Name: Nikhil



Date of birth: 2004-12-01

Age: 18

Person 3:

Name: pradip

Date of birth: 2005-06-25

Age: 17

Person 4:

Name: RIYAN

Date of birth: 2006-09-09

Age: 16



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

```
#include <stdio.h>
#include <stdlib.h>
int main() {
  int n, *ptr, i, sum = 0;
  printf("Enter the number of elements: ");
  scanf("%d", &n);
// Allocate memory dynamically
  ptr = (int*) malloc(n * sizeof(int));
 if (ptr == NULL) {
    printf("Error! Memory not allocated.");
    exit(0);
  }
 printf("Enter elements: ");
  for (i = 0; i < n; i++) {
    scanf("%d", ptr + i);
    sum += *(ptr + i);
  }
printf("Sum = %d", sum);
// Free the dynamically allocated memory
  free(ptr);
```



return 0;
}
OUTPUT:
Enter the number of elements: 5
Enter elements: 1
2
3
4
5
Sum = 15



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.

```
#include <stdio.h>
int main() {
  FILE *fp, *even_fp, *odd_fp;
  int num;
fp = fopen("New.txt", "r");
  if (fp == NULL) {
    printf("Error opening file.");
    return 1;
  }
 even_fp = fopen("even.txt", "w");
  if (even fp == NULL) {
    printf("Error opening file.");
    return 1;
 odd_fp = fopen("odd.txt", "w");
  if (odd fp == NULL) {
    printf("Error opening file.");
    return 1;
  }
```



```
while (fscanf(fp, "%d", &num) != EOF) {
    if (num % 2 == 0) {
      fprintf(even_fp, "%d\n", num);
    } else {
      fprintf(odd_fp, "%d\n", num);
    }
  }
  fclose(fp);
  fclose(even_fp);
  fclose(odd_fp);
     printf("Values in even file:\n");
  even fp = fopen("even.txt", "r");
  while (fscanf(even_fp, "%d", &num) != EOF) {
    printf("%d\n", num);
  }
  fclose(even_fp);
 printf("Values in odd file:\n");
  odd_fp = fopen("odd.txt", "r");
  while (fscanf(odd_fp, "%d", &num) != EOF) {
    printf("%d\n", num);
  }
  fclose(odd_fp);
return 0;
}
```

OUTPUT:

Error opening file.



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

```
#include <iostream>
#include <cmath>
using namespace std;
bool isPrime(int n) {
  if (n <= 1) {
     return false;
}
  for (int i = 2; i \le sqrt(n); i++) {
    if (n \% i == 0) {
       return false;
     }
  }
  return true;
}
int main() {
  int n;
  cout << "Enter a positive integer: ";</pre>
  cin >> n;
  if (isPrime(n)) {
     cout << n << " is a prime number" << endl;</pre>
```



```
} else {
    cout << n << " is not a prime number" << endl;
}
return 0;
}</pre>
```

OUTPUT:

Enter a positive integer: 5

5 is a prime number



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;
  cout << "Enter a Character:";</pre>
  cin >> c;
  /* Check if input alphabet is member of set{A,E,I,O,U,a,e,i,o,u} */
  if(c == 'a' || c == 'e' || c =='i' || c=='o' || c=='u' || c=='A'
      || c=='E' || c=='I' || c=='O' || c=='U'){
    cout << c << " is VOWEL";
  } else {
    cout << c <<" is CONSONANT";
  }
  return 0;
}
```

OUTPUT:

Enter a Character: A

A is VOWEL



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

```
CODE:
#include <iostream>
class MyClass {
public:
 // Constructor
 MyClass() {
  std::cout << "Constructor called" << std::endl;</pre>
 // Destructor
 ~MyClass() {
  std::cout << "Destructor called" << std::endl;</pre>
 }
};
int main() {
 // Create an object of MyClass
 MyClass obj;
// The object is automatically destroyed when it goes out of scope
 return 0;
```

OUTPUT:



Constructor called

Destructor called

PRACTICAL-10

AIM: Write a C++ program to implement Multilevel Inheritance.

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

Enter value of a: 12

Enter value of b: 2

Enter value of c: 2

sum:16



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

```
#include <iostream>
using namespace std;
class Complex {
 private:
  float real;
  float imag;
public:
  // Constructor to initialize real and imag to 0
  Complex() : real(0), imag(0) {}
    void input() {
    cout << "Enter real and imaginary parts respectively: ";
    cin >> real;
    cin >> imag;
  }
  // Overload the + operator
  Complex operator + (const Complex& obj) {
    Complex temp;
    temp.real = real + obj.real;
    temp.imag = imag + obj.imag;
    return temp;
```



```
}
 void output() {
    if (imag < 0)
      cout << "Output Complex number: " << real << imag << "i";</pre>
    else
      cout << "Output Complex number: " << real << "+" << imag << "i";
  }
};
int main() {
  Complex complex1, complex2, result;
  cout << "Enter first complex number:\n";</pre>
  complex1.input();
  cout << "Enter second complex number:\n";</pre>
  complex2.input();
     // complex1 calls the operator function
    // complex2 is passed as an argument to the function
         result = complex1 + complex2;
         result.output();
  return 0;
}
OUTPUT:
Enter first complex number:
Enter real and imaginary parts respectively: 3
5
Enter second complex number:
Enter real and imaginary parts respectively: 5
```



7

Output Complex number: 8+12i

PRACTICAL-12

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

```
#include <iostream>
using namespace std;
class base {
public:
      virtual void print()
      {
             cout << "print base class" <<
                          endl;
      }
     void show()
      cout << "show base class" <<
                   endl;
      }
};
class derived : public base {
public:
      void print()
      {
```



cout << "print derived class" <<

```
endl;
      }
      void show()
      cout << "show derived class" <<</pre>
                   endl;
      }
};
int main()
{
      base* bptr;
      derived d;
      bptr = &d;
      bptr->print();
      bptr->show();
      return 0;
}
OUTPUT:
print derived class
```

show base class



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

```
<!DOCTYPE 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"</pre>
/> <title>Document</title>
  <style type="text/css">
   * {
    font-size: 22px;
    font-weight: bold;
   }
   #r1 {
    background-color: gray;
    height: 50px;
                     padding-top: 20px;
                                           width: 98%;
                                                            padding-left:
2%;
    margin-bottom: 10px;
   }
   #r2,
   #r5 {
    background-color: gray;
```



```
/* width: 100%; */ padding-
    height: 33px;
                    padding-top: 7px;
         text-align: center;
left: 2%;
    margin-bottom: 10px;
   }
   #r3 {
    background-color: gray;
    height: 90px;
                   width: 100%;
                                     padding-top: 60px; text-align:
center;
    margin-bottom: 10px;
       #r4 {
    height: 600px; width: 100%;
    margin-bottom: 10px;
   }
   #r4c1 {
    width: 28%;
                     margin-right: 2%;
   }
          width: 70%;
   #r4c2 {
   }
   #r4 div {
    float: left;
                 height: 320px; padding-top: 280px; text-align:
          background-color: gray;
center;
  }
  </style>
 </head>
 <body>
```



```
<div>
   <div id="r1">Logo</div>
   <div id="r2">Navigation</div>
   <div id="r3">Header/Banner</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>
<!DOCTYPE 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>Document</title>
  <style type="text/css">
    *{
            font-size: 22px;
      font-weight: bold;
    }
    #r1{
      background-color: gray;
      height: 50px;
```



```
height: 50px;
                              width: 98%;
                                                  padding-left: 2%;
      padding-top: 20px;
      margin-bottom: 10px;
    }
    #r2,#r5{
      background-color: gray;
      height: 33px; padding-top: 7px; /* width: 100%; */ padding-left: 2%;
text-align: center;
      margin-bottom: 10px;
    }
    #r3{
      background-color: gray;
      height: 90px; width: 100%; padding-top: 60px; text-align: center;
      margin-bottom: 10px;
    }
    #r4{ height: 600px; width: 100%; margin-bottom: 10px;
    }
    #r4c1{ width: 32%; margin-right: 2%;
    }
    #r4c2{ width: 32%; margin-right: 2%;
    }
    #r4c3{
      width: 32%;
    }
    #r4 div{ float: left; height: 320px; padding-top: 280px; text-align: center;
background-color: gray;
```



```
}
  </style>
</head>
<body>
  <div>
    <div id="r1">
        Logo
    </div>
    <div id="r2">
        Navigation
    </div>
    <div id="r3">
      Header/Banner
    </div>
    <div id="r4">
      <div id="r4c1">
        box-1
      </div>
      <div id="r4c2">
        box-2
      </div>
      <div id="r4c3">
                  </div>
      box-3
    </div>
    <div id="r5">
      Footer
```



```
</div>
  </div>
</body>
</html>
<html> <head>
  <title>Demo Layout 3</title>
  <style type="text/css">
             font-size: 22px;
    * {
      font-weight: bold;
                    background-color: gray;
                                                  height: 50px;
        #R1 {
padding-top: 20px;
                         width: 98%;
                                           padding-left: 2%;
      margin-bottom: 10px;
    }
#R5 {
      background-color: gray;
      height: 33px; width: 100%; padding-top: 7px; text-align: center;
margin-bottom: 10px;
      margin-top: 1%;
    }
table {
      width: 100%;
    }
    .s {
      height: 600px;
      width: 28%;
```



```
}
   .b {
     background-color: gray;
     height: 100px; text-align: center;
   }
 .bl {
     height: 10px;
   }
  .ba {
     background-color: gray; height: 490px; text-align: center;
   }
 </style>
</head>
<body>
 <div>
   <div id="R1">
     Logo
   </div>
   Side Bar Navigation
      Header/Banner
```



```
<div class="bl"></div>
      Body Area
      <div id="R5">
    Footer
   </div>
 </div>
</body>
</html>
<html>
<head>
    <title>Demo Layout 4</title>
    <style type="text/css">
         * {
             font-size: 22px;
             font-weight: bold;
        }
```



```
#R1 {
            background-color: gray; height: 50px; padding-top: 20px;
            width: 98%;
            padding-left: 2%;
            margin-bottom: 10px;
      }
#R2 { width: 100%;
            margin-bottom: 10px;
            height: 620px;
            }
#R2 div { float: left;
                  margin-bottom: 1%; margin-bottom: 1%;
      }
#R5 {
            background-color: gray; height: 33px;
width: 100%; padding-top: 7px; text-align: center;
            margin-bottom: 10px;
      }
       #R3 {
            background-color: gray; height: 90px;
width: 100%;
                               padding-top: 60px;
            text-align: center;
}
       .B1,.B2,.B3,.B5,.B6,.B7,.B9,.B10,.B11,.B13,.B14,.B15 {
            background-color: grey; height: 150px;
width: calc(25% - 1%);
            margin-right: 1%;
```



}

```
.B4,.B8,.B12,.B16 { background-color: grey;
height: 150px;
            width: 25%;
      }
       #R3 {
            width: 100%;
            background-color: white;
            height: 222px;
            padding-top: 0px;
            margin-top: 2%;
      }
      #R3 div { float: left;
            margin-bottom: 0%;
      }
      #c1 {
      #c1 {
            background-color: grey; height: 220px; width: 32%;
            margin-right: 1%; }
      #c2 {
            background-color: grey; height: 220px;
width: 34%;
                              margin-right: 1%;
      }
      #c3 { background-color: grey; height: 220px;
```



width: 32%; }

```
.r4 {
            height: 50px; background-color: grey; margin-top: 1%;
            text-align: center;
                  padding-top: 20px; }
      </style>
</head>
<body>
      <div>
            <div id="R1">
                  Logo
            </div>
            <div id="R2">
                  <div class="B1"></div>
                  <div class="B2"></div>
                  <div class="B3"></div>
                  <div class="B4"></div>
                  <div class="B5"></div>
                  <div class="B6"></div>
                  <div class="B7"></div>
                  <div class="B8"></div>
                  <div class="B9"></div>
      <div class="B10"></div>
      <div class="B11"></div>
      <div class="B12"></div>
      <div class="B13"></div>
```



<div class="B14"></div>

<div class="B15"></div>

<div class="B16"></div>

</div>

<div id="R3">

<div id="c1">Box-1</div>

<div id="c2">Box-2</div>

<div id="c3">Box-3</div>

</div>

<div class="r4">

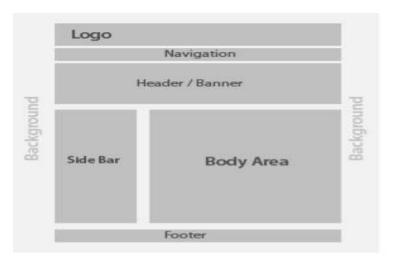
Footer

</div>

</body>

</html>

OUTPUT:





Logo		
	Navigation	
	Header/Banner	
box-1	box-2	box-3
	Footer	



Logo	
	Header/Banner
Side Bar Navigation	Body Area
	Footer



Logo			
Box-1	Во	ox-2	Box-3
	Fo	oter	



PRACTICAL-14

AIM: Demonstrate JavaScript Form Validation with proper examples.

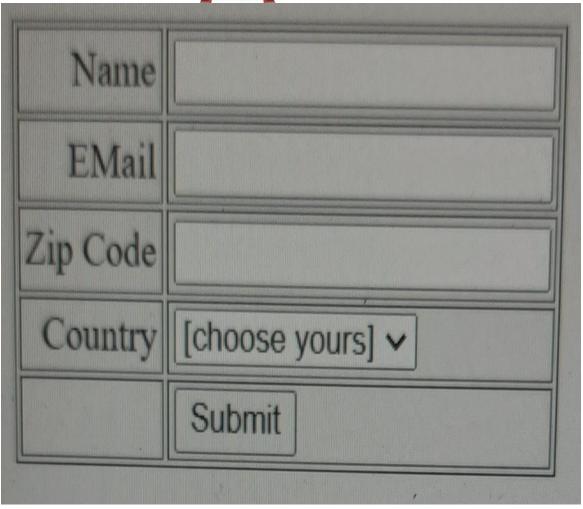
CODE:

```
<html>
 <head>
  <title>Form Validation</title>
  <script type = "text/javascript">
   <!--
    // Form validation code will come here.
   //-->
  </script>
 </head>
 <body>
  <form action = "/cgi-bin/test.cgi" name = "myForm" onsubmit =
"return(validate());">
   Name
     <input type = "text" name = "Name" />
    EMail
     <input type = "text" name = "EMail" />
```



```
Zip Code
     <input type = "text" name = "Zip" />
    Country
     <select name = "Country">
       <option value = "-1" selected>[choose yours]
       <option value = "1">USA</option>
       <option value = "2">UK</option>
       <option value = "3">INDIA</option>
      </select>
     <input type = "submit" value = "Submit" />
    </form>
 </body>
</html>
OUTPUT:
```







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

CODE:

```
const number = prompt("Enter a number: ");
if(number % 2 == 0) {
   console.log("The number is even.");
}
else {
   console.log("The number is odd.");
}
```

OUTPUT:

Enter a number: 15

The number is odd.



AIM: Create a page and access the LocationAPI.

```
CODE:
<!DOCTYPE html>
<html>
<body>
 Click the button to get your coordinates.
   <button onclick="getLocation()">Try It</button>
 <script>
var x = document.getElementById("demo");
function getLocation() {
 if (navigator.geolocation) {
  navigator.geolocation.getCurrentPosition(showPosition);
 } else {
  x.innerHTML = "Geolocation is not supported by this browser.";
 }
}
function showPosition(position) {
 x.innerHTML = "Latitude: " + position.coords.latitude +
 "<br/>br>Longitude: " + position.coords.longitude;
}
</script>
</body>
</html>
```



Click the button to get your coordinates.

Try It

Latitude: 23.0926305 Longitude: 72.5323024



AIM: Make a resume using the HTML tags without CSS CODE: <!DOCTYPE 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>DAY-1</title> </head> <body> <h2>DENISA RABADIYA</h2> <h3><u>CONTACT</u></h3> MOBILE : 9663456271 EMAIL : denisarabadiya@gmail.com <h3><u>OBJECTIVE</u></h3> ul> Strong in design and integration with intuitive problem-solving Proficient in CSS, C, C++, and HTML. Passionate about skills. implementing and launching new projects. Ability to translate business requirements into technical solutions. Looking to start the career as an entry-level software engineer with a reputed firm driven by technology.

<h3><u>EDUCATION</u></h3>



COURSE

```
BOARD
 YEAR
 MARKS
SSC
 GSEB
 2020
 88%
HSC
 GSEB
 2022
 71%
<h3><u>$KILL$</u></h3>
<h3>Technical Skills</h3>
ul>
```

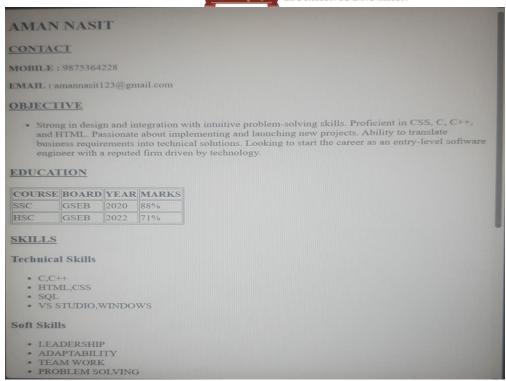


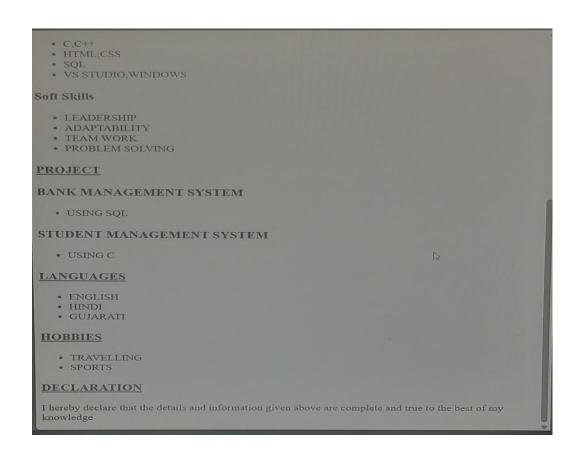
C,C++

```
HTML,CSS,JAVASCRIPT
SQL
VS STUDIO, WINDOWS
<h3>Soft Skills</h3>
ul>
LEADERSHIP
ADAPTABILITY
TEAM WORK
PROBLEM SOLVING
<h3><u>PROJECT</u></h3>
<h3>BANK MANAGEMENT SYSTEM</h3>
ul>
USING SQL
<h3>STUDENT MANAGEMENT SYSTEM</h3>
ul>
USING C
```











PRACTICAL-18

AIM: Create an HTML page table and form. CODE: <!DOCTYPE html> <html> <body> <h2>Form</h2> <form> <label for="name"> Name </label> <input type="text" id="name" /> <label for="email"> **Email** </label> <input type="email" id="email" />



```
>
  <label for="city">
                        City
  </label>
 <input type="text" id="city" />
 <label for="telnum">
                            Tel No.
   </label>
 <input type="telnum" id="telnum" />
 <label for="Roll No.">
                             Roll No.
```



</label> <input type="number" id="rollno" /> <input type="submit" value="Submit"> > <input type="reset" value="Reset"> </form> </body>

OUTPUT:

</html>



Form		
Name		
Email		
City		
Tel No.		
Roll No.		
Submit	Reset	



AIM: Create Registration form and do proper validation with HTML 5 inbuilt functionality.

```
CODE:
<!DOCTYPE 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>Practical 5</title> </head>
<body bgcolor="powderblue">
   <form action="" method="post">
   <h1 align="center">Registration Form</h1>
   <hr>
   <b>First Name :</b>
       <input type="text" required placeholder="Enter First Name"
    title="Fill the correct data" maxlength="20" >
```



```
 <b>Last Name : </b>
       <input type="text" required placeholder="Enter Last Name"
maxlength="20">
      <b>Contact no. :</b>
       <input type="text" placeholder="Enter Your Contact No."
pattern="\d{10}" minlength="10" maxlength="10" required 
      <b>Landline no : (079-123456)</b>
       <input type="text" pattern="[^0-9]{3}-\d{6}" maxlength="10"
required
placeholder="Enter Your Landline No.">
     <b>Email :</b>
       <input type="email" required placeholder="Enter Your Email
ID" pattern="[^{0}t\r\rangle_{0}=".[^{0}t\r\rangle_{0}=".[^{0}t\r\rangle_{0}">
```



Password

```
<input type="password" required placeholder="Enter a
Password" pattern="(?=.*\d)(?=.*[a-z])(?=.*[A-Z]).{8}">
     <b>Date of Birth</b>
      <input type="date" required>
    Age
      <input type="Number" min="18" max="40" width="600%"
placeholder="Enter
Age Between 18 to 40" required>
     <b>Gender</b>
    </body>
</html>
```

OUTPUT:



Registration Form

First Name :	Enter First Name	
Last Name :	Enter Last Name	
Contact no.:	: Enter Your Contact No.	
Landline no : (079- 123456)	Enter Your Landline No.	
Email:	Enter Your Email ID	
Password	Enter a Password	
Date of Birth	dd-mm-yyyy 🗊	
Age	Enter /	
City:	AHMEDABAD~	
Submit	Reset	



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

CODE: <!DOCTYPE html> <html> <body> <div id="demo"> <h2>Let AJAX change this text</h2> </div> <button type="button" onclick="loadDoc()">Change Content</button> <script> function loadDoc() {var xhttp = new XMLHttpRequest();xhttp.onreadystatechange = function () { if (xhttp.readyState == 4 && xhttp.status == 200) { document.getElementById("demo").innerHTML = xhttp.responseText; } **}**; xhttp.open("GET", "ajax_info.txt", true);xhttp.send(); } </script>



OUTPUT:	

The XMLHttpRequest Object

Change Content

AJAX

AJAX is not a programming language.

AJAX is a technique for accessing web servers from a web page.

AJAX stands for Asynchronous JavaScript And XML.



Aim: To study DDL-create and DML-insert commands. Create following Tables.

Code:

```
CREATE DATABASE Practical 13db;
```

Output:

```
Practical13db

13.1 Job (job_id, job_title, min_sal, max_sal) Code:

CREATE TABLE Job ( job_id VARCHAR(15), job_title VARCHAR(30), min_sal INT, max_sal INT
```

Output:

13.2 Employee (emp_no, emp_name, emp_sal, emp_comm,

dept_no) Code:

```
CREATE TABLE Employee ( emp_no INT, emp_name VARCHAR(30), emp_sal DECIMAL(8,2), emp_comm DECIMAL(6,1), dept_no INT);
```



Output:

13.3

Deposit(a_no,cname,bname,amount,a_date)

Code:

```
CREATE TABLE Deposit( a_no INT IDENTITY (1,1), cname VARCHAR(50), bname VARCHAR(30), amount DECIMAL(4,2), a_date Date
);
```

Output:

```
    ■ dbo.Deposit
    □ Columns
    □ a_no (int, not null)
    □ cname (varchar(50), null)
    □ bname (varchar(30), null)
    □ amount (decimal(4,2), null)
    □ a_date (date, null)
```

13.4 Borrow(loanno,cname,bname,amount)

Code:

```
CREATE TABLE Borrow(

loanno INT,

cname VARCHAR(25),

bname VARCHAR(20),

amount DECIMAL(6,2)
```



);

Output:



Aim: Create tables and insert sample data in tables. Write SQL queries to insert following data into tables.

14.1 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:

insert into Employee values(101,'Smith',800,Null,20); insert into Employee values(102,'Snehal',1600,300,25); insert into Employee values(103,'Adama',1100,0,20); insert into Employee values(104,'Aman',3000,Null,15); insert into Employee values(105,'Anita',5000,50000,10); insert into Employee values(106,'Sneha',2450,24500,10);

insert into Employee values(107, 'Anamika', 2975, Null, 30);

select * from Employee;

Output:

	emp_no	emp_name	emp_sal	emp_comm	dept_no
1	101	Smith	800.00	NULL	20
2	102	Snehal	1600.00	300.0	25
3	103	Adama	1100.00	0.0	20
4	104	Aman	3000.00	NULL	15
5	105	Anita	5000.00	50000.0	10
6	106	Sneha	2450.00	24500.0	10
7	107	Anamika	2975.00	NULL	30

14.2 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:

```
insert into Job values('IT_PROG','Programmer',4000,10000);
insert into Job values('MK_MGR','Marketing manager',9000,15000);
insert into Job values('FI_MGR','Finance
manager',8200,12000); insert into Job
values('FI_ACC','Account',4200,9000); insert into Job
values('LEC','Lecturer',6000,17000);
insert into Job values('COMP_OP','Computer Operator',1500,3000);
select * from Job;
```

Output:

	job_id	job_title	min_sal	max_sal
1	IT_PROG	Programmer	4000	10000
2	MK_MGR	Marketing manager	9000	15000
3	FI_MGR	Finance manager	8200	12000
4	FI_ACC	Account	4200	9000
5	LEC	Lecturer	6000	17000
6	COMP OP	Computer Operator	1500	3000

14.3 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:

insert into Deposit values(101,'Anil','andheri',7000,'01-jan-06'); insert into Deposit values(102,'sunil','virar',5000,'15-jul-06'); insert into Deposit values(103,'jay','villeparle',6500,'12-mar-06'); insert into Deposit values(104,'vijay','andheri',8000,'17-sep-06'); insert into Deposit values(105,'keyur','dadar',7500,'19-nov-06'); insert into Deposit values(106,'mayur','borivali',5500,'21-dec-06'); select * from Deposit;

Output:

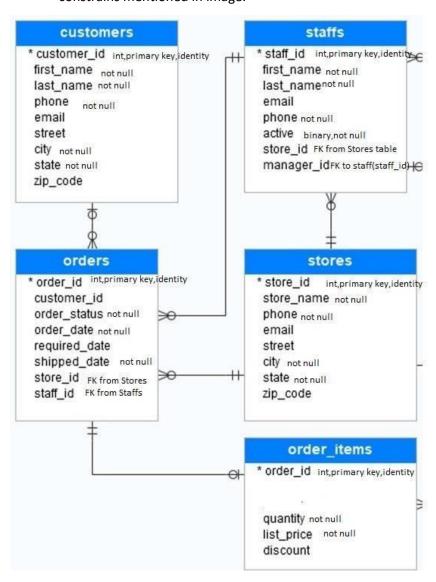
	a_no	cname	bname	amount	a_date
1	101	Anil	andheri	7000.00	2006-01-01
2	102	sunil	virar	5000.00	2006-07-15
3	103	jay	villeparle	6500.00	2006-03-12
4	104	vijay	andheri	8000.00	2006-09-17
5	105	keyur	dadar	7500.00	2006-11-19
6	106	mayur	borivali	5500.00	2006-12-21



PRACTICAL-23

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 not null primary key identity (1,1),
first_name varchar(50) not null, last_name varchar(50)
not null, phone int not null, email varchar(20), street
varchar(20), city varchar(20) not null,
  state varchar(20) not null,
  zip_code int
 );
  create table stores(
 store_id int not null primary key identity (1,1),
store_name varchar(50) not null, phone int not
null, email varchar(20), street varchar(20), city
varchar(20) not null,
  state varchar(20) not null,
  zip_code int
 );
```



```
create table staffs(
 staff_id int not null primary key identity (1,1), first_name
varchar(50) not null, last_name varchar(50) not null, email
varchar(20), phone int not null, active binary not null, store_id
int foreign key references stores(store_id) not null,
  manager_id int foreign key references staffs(staff_id) not null
);
 create table orders(
 order_id int primary key identity (1,1) not null,
 customer_id int foreign key references customers(customer_id),
order_status varchar(20) not null, order_date Date not null,
required_date Date, shipped_date Date not null,
 store_id int foreign key references stores(store_id), staff_id int
 foreign key references staffs(staff_id)
);
 create table order_item(
  oreder_id int foreign key references orders(order_id) not null,
 quantity int not null, list_price
int not null, discount int
);
```

Output:



- customer_id (PK, int, not null)
- first_name (varchar(50), not null)
- last_name (varchar(50), not null)
- phone (int, not null)
- email (varchar(20), null)
- street (varchar(20), null)
- city (varchar(20), not null)
- state (varchar(20), not null)
- ≡ zip_code (int, null)

□ Columns

- c= oreder_id (FK, int, not null)
- quantity (int, not null)
- 目 list_price (int, not null)
- discount (int, null)

Columns

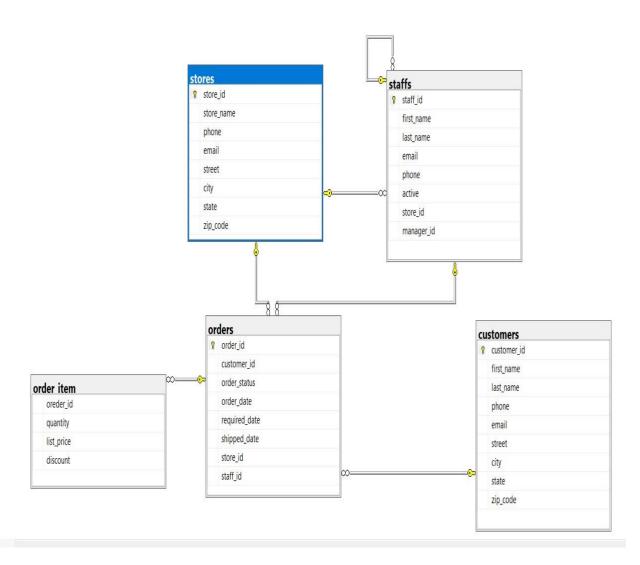
- store_id (PK, int, not null)
- store_name (varchar(50), not null)
- phone (int, not null)
- email (varchar(20), null)
- street (varchar(20), null)
- dity (varchar(20), not null)
- state (varchar(20), not null)

☐ ■ Columns

- staff_id (PK, int, not null)
- first_name (varchar(50), not null)
- last_name (varchar(50), not null)
- email (varchar(20), null)
- phone (int, not null)
- active (binary(1), not null)
- = store_id (FK, int, not null)
- manager_id (FK, int, not null)

- → order_id (PK, int, not null)
- customer_id (FK, int, null)
- order_status (varchar(20), not null)
- 目 order_date (date, not null)
- □ required_date (date, null)
- shipped_date (date, not null)
- store_id (FK, int, null)
- staff_id (FK, int, null)







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

- 1. List total deposit from deposit.
- 2. List total amount from andheri branch
- 3. Count total number of customers
- 4. Count total number of customer's cities.
- 5. Update the value dept_no to 10 where second character of emp. name is 'm'.
- 6. Update the value of employee name whose employee number is 103.
- 7. Write a query to display the current date. Label the column 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
- 9. Modify your previous query to add a column that subtracts the old salary from the new salary. Label the column Increment.

Code:

```
select *from deposit;

select sum(amount) from deposit;

select amount from deposit where bname='andheri';

select count(cname) from deposit;

select bname,count(cname) from deposit group by bname;

select *from Employee;
```



update Employee set dept_no=10 where emp_name like '_m%';

update Employee set emp_name='panda' where emp_no=105;

```
select emp_no,emp_name,emp_sal,emp_sal+(emp_sal*15/100) as new_sal from Employee; select emp_no,emp_name,emp_sal,((emp_sal+(emp_sal*15/100))-emp_sal) as sub_sal from Employee; alter table Employee drop column new_salary; select *from deposit; select sum(amount) from deposit; select amount from deposit where bname='andheri'; select count(cname) from deposit; select bname,count(cname) from deposit group by bname; SELECT CAST( GETDATE() AS Date );
```

Output:



a_no	cname	bname	amount	a_date
101	Anil	Andhori	7000	01-june-06
102	Sunil	virar	5000	15-july-06
103	Jay	villoparle	6500	12-march-06
104	Vijay	andheri	8000	17-sept-06
105	Keyur	dadar	7500	19-nov-06
106	Mayur	borivali	5500	21-dec-06
sum(amount)	Mayur	DORNOR	5600	21-000-06
39500				
amount				
8000				

count(cname)		
6		
bname	count(cname)	
Andheri	1	
andhori	1	
boriyali	1	
dadar	T	
villeparle	1	
virar	1	

omp_no	emp_name	emp_sal	emp_comm	dept_no
101	Smith	800		10
102	Snehal	1600	300	25
103	Adama	1100		20
104	Amon	3000		10
105	panda	5000	50000	10
106	Snoha	2450	24500	10
107	Anamika	2975		30

amp_no	emp_name	emp_sal	new_sal
101	Smith	800	920
102	Snehal	1600	1840
103	Adama	1100	1265
104	Aman	3000	3450
105	panda	5000	5750
106	Sneha	2450	2817
107	Anamika	2975	3421

omp_no	emp_name	emp_sal	sub_sol
101	Smith	800	120
102	Snehal	1600	240
103	Adama	1100	165
104	Amon	3000	450
105	panda	5000	750
106	Sneha	2450	367
107	Anamika	2975	445



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

- 1. Retrieve all data from employee, jobs and deposit.
- 2. Give details of account no. and deposited rupees of customers having account opened between dates 01-01-06 and 25-07-06.
- 3. Display all jobs with minimum salary is greater than 4000.
- 4. Display name and salary of employee whose department no is 20. Give alias name to name of employee.
- 5. Display employee no,name and department details of those employee whose department lies in(10,20)
- 6. Display all employee whose name start with 'A' and third character is 'a'. 7. Display name, number and salary of those employees whose name is 5 characters long and first three characters are 'Ani'.
- 8. Display the non-null values of employees and also employee name second charactershould be 'n' and string should be 5 character long.
- 9. Display the null values of employee and also employee name's third character should be 'a'.

Code:



```
select *from employee; select
*from job;
select *from deposit;

select a_no,amount from deposit where a_date between '06-01-01'and'06-07-25';

select *from job where min_sal > 4000;

select emp_name from employee as name_of_employee where dept_no = 20;

select emp_no,emp_name from employee where dept_no in (10,20);

select *from employee where emp_name like '__a%';
```

```
select emp_no,emp_name,emp_sal from employee where emp_name like 'Ani%' and length(emp_name)=5;

select emp_no,emp_name,emp_sal from employee where emp_name like '_n___' and emp_comm is not null;

select emp_no,emp_name,emp_sal from employee where emp_name like '__a%' and emp_comm is not null;
```

Output:



emp_no	emp_name	emp_sal	emp_comm	dept_no
101	Smith	800		10
102	Snehal	1600	300	25
V03	Adama	1100		20
104	Aman	3000		10
105	panda	5000	50000	10
106	Sneha	2450	24500	10
107	Anamika	2975		30

ob_id	job_titlo	min_sal	max_sal
IT PROG	Programmer	4000	10000
MKMGR	Marketing Manager	9000	15000
FI_MGR	Finance Manager	8200	12000
FLACC	Account	4200	9000
LEC	Locturer	6000	17000
COMP_OP	Computer Operator	1500	3000

a_no	cname	bname	amount	a_date
101	Anil	Andhori	7000	01-june-06
102	Sunil	virar	5000	15-july-06
103	Jay	villeparle	6500	12-march-06
104	Vijay	andheri	8000	17-sept-06
105	Keyur	dadar	7500	19-nov-06-
106	Mayur	borivali	5500	21-dec-06

job_id	job_title	min_sal	max_sal
MK MGR	Marketing Manager	9000	15000
FI_MGR	Finance Manager	8200	12000
FIACC	Account	4200	9000
LEC	Lecturer	6000	17000

emp_no			emp_name			
101			Smith			
103			Adama			
104			Aman			
105			panda			
106			Sneha			
emp_no	emp_name		mp_sal	emp_comm	dept_no	
103	Adama	1	100		20	
104	Amon		000		10	
107	Anamika	2	975		30	
emp_no		emp_name		om	p_sal	
32 Snehal			160	0		



AIM:

```
CODE: <!DOCTYPE html>
<html>
<head>
 <style>
  table {
   width: 100%;
   border-collapse: collapse;
  }
  th, td {
   padding: 8px;
   text-align: left;
   border-bottom: 1px solid #ddd;
  }
  th {
   background-color: #f2f2f2;
  }
  caption {
   font-size: 24px;
   font-weight: bold;
   margin-bottom: 10px;
```



```
}
 .highlight {
  background-color: yellow;
 }
 .center {
  text-align: center;
 }
</style>
</head>
<body>
<caption>Poster Presentation</caption>
 <thead>
  Topic
   Author
   Time
  </thead>
 Introduction to HTML
   John Doe
```



```
9:00 AM
Jane Smith
10:00 AM
Break
JavaScript Fundamentals
Michael Johnson
11:00 AM
CSS Styling Techniques
Emily Davis
1:00 PM
Robert Wilson
2:00 PM
Lisa Thompson
```



3:00 PM

</body>

</html>

OUTPUT:

	Poster Presentation	
Горіс	Author	Time
Introduction to HTML	John Doe	9:00 AM
	Jane Smith	10:00 AM
	Break	
JavaScript Fundamentals	Michael Johnson	11:00 AM
	Emily Davis	1:00 PM
CSS Styling Techniques	Robert Wilson	2:00 PM
	Lisa Thompson	3:00 PM



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

```
CODE:
<!DOCTYPE html>
<html>
<head>
 <title>Intern Resume</title>
 <style>
  body {
   font-family: Arial, sans-serif;
   margin: 0;
   padding: 20px;
  }
  h1 {
   color: #333;
  }
  .section {
   margin-bottom: 20px;
  }
  .section h2 {
   color: #777;
   font-size: 18px;
```



```
margin-bottom: 10px;
  }
  .section p {
   margin: 0;
  }
  .section ul {
   margin: 0;
   padding: 0;
   list-style-type: none;
  }
  .section li \{
   margin-bottom: 5px;
  }
 </style>
</head>
<body>
 <h1>Intern Resume</h1>
 <div class="section">
  <h2>Contact Information</h2>
  Name: AMAN NASIT
  Email: amannasit123@gmail.com
```



```
Phone:+919423541673
 </div>
 <div class="section">
 <h2>Education</h2>
 ul>
  Bachelor of Technology in information Technology, Silver
Oak University
  Expected Graduation: May 2026
 </div>
 <div class="section">
 <h2>Skills</h2>
 ul>
  Programming: HTML, CSS, JavaScript
  Database: SQL
  Version Control: Git
 </div>
 <div class="section">
 <h2>Experience</h2>
 Intern at ABC Company, June 2022 - August 2022
```



Assisted with front-end web development tasks

Collaborated with team members on project
deliverables

Tested and debugged website issues

</div>

</body>

</html>

OUTPUT:

Intern Resume

Contact Information

Name: AMAN NASIT

Email: amannasit123@gmail.com

Phone:+919423541673

Education

Bachelor of Technology in information Technology, Silver Oak University

Expected Graduation: May 2026

Skills

Programming: HTML, CSS, JavaScript

Database: SQL Version Control: Git

Experience

Intern at ABC Company, June 2022 - August 2022 Assisted with front-end web development tasks

Collaborated with team members on project deliverables

Tested and debugged website issues