

Sangam  
11401182023

**INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN,  
KASHMERE GATE, DELHI 110006**



**ELECTRONIC & COMMUNICATION ENGINEERING  
1<sup>st</sup> SEMESTER  
PROGRAMMING IN C LAB FILE**

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**SUBJECT CODE: BCS110**

**ENROLLMENT NO.: 11401182023**

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**BRANCH: ECE-AI 2**

## INDEX

S. NO.	LAB 1 EXPERIMENTS	PAGE NO.	DATE
1.	Write a C Program to display “This is my first C program”.	6	
2.	Write a C Program that prints the perimeter of a rectangle to take its height and width as input.	7	
3.	Write a C program to calculate area and circumference of a circle.	3,5,6	
4.	Write a C program to perform addition, subtraction, division and multiplication of two numbers.	6,7,8,9	
5.	Write a C program to evaluate each of the following program: a) $v = u + gt$ b) $s = ut + \frac{1}{2}at^2$ c) $v^2 = u^2 + 2as$	10,11,12 ,13,14,1 5	
6.	Write a C program that takes hours and minutes as input and calculates the total number of minutes.	15	
7.	Write a program in C that reads forename, surname and year of birth and displays the names and year one after another sequentially.	16	
8.	Write a C program that converts Centigrade to Fahrenheit.	18,19	
9.	Write a C Program to calculate the value of nCr.	20	
10.	Write a C Program to extract the last two digits from given year.	21,22	

<b>S.NO.</b>	<b>LAB 2 EXPERIMENTS</b>	<b>PAGE NO.</b>	<b>DATE</b>
1.	Write a C program to find the following +, -, *, /, and % between two numbers.	23 to 27	
2.	Write a C program to find the following a++, a--, ++a, and -a.	28	
3.	Write a C program to find the following a+=b, a-=b, a*=b, a/=b, a% =b between two numbers.	29	
4.	Write a program to check whether two numbers are ==, <, >, >=, <=, != .	30	
5.	Write a program to find the following result. a) result= (a==b) && (c>d); b) result= (a==b) && (c<d); c) result= (a==b)   (c<d); d) result= (a! =b)    (c<d); e) result= !(a != b); f) result= !(a== b);	31	
6.	Write a program to find the following &,>>, <<,  , ~, ^, between two numbers.	32	
7.	Write a program to find the size of the following data types int, float, char, string, long int, double, long float.	33,34	

<b>S.NO.</b>	<b>LAB 3 EXPERIMENTS</b>	<b>PAGE NO.</b>	<b>DATE</b>
1.	Write a C program to check whether a given number is even or odd.	35	
2.	Write a C program to find whether a given year is a leap year or not.	36	
3.	Write a C program to read the age of a candidate and determine whether it is eligible for casting his/her own vote.	37	
4.	Write a C program to find the largest of three numbers.	37	
5.	Write a C program to accept a coordinate point in a XY coordinate system and determine in which quadrant the coordinate point lies.	38	
6.	Write a C program to check whether a triangle is Equilateral, Isosceles, Scalene.	39	
7.	Write a C program to check whether an alphabet is a vowel or consonant.	40	
8.	Write a C Program to read roll no, name and marks of three subjects and calculate the total, percentage and division.	41,42,43	

## LAB 1 EXPERIMENTS

### Program:1

Write a C Program to display “This is my first C program”.

### ALGORITHM

Step 1: Start

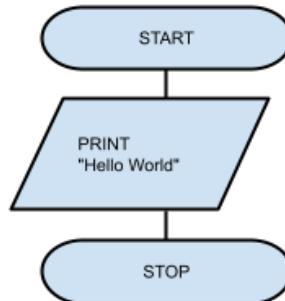
Step 2: Print the statement “This is my first C program”

Step 3: Stop

### INPUT

```
int main() {  
    printf("This is my first C program");  
    return 0;  
}
```

### FLOWCHART



### OUTPUT

Output	Clear
/tmp/RLLHhJas2t.o This is my first C program	

## Program:2

Write a C Program that prints the perimeter of a rectangle to take its height and width as input.

### ALGORITHM

Step 1: Start

Step 2: Take integer variable a and b.

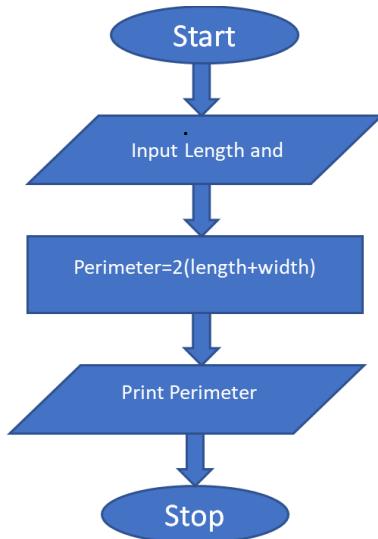
Step 3: Assign the value to the variable a and b.

Step 4: Do operation =  $2*(a+b)$ , were a = length of rectangle and b = breadth of rectangle

Step 5: Print the result of step 3

Step 6: Stop

### FLOWCHART



### INPUT

```
int main() {  
    int a,b;  
    printf("\nType length of rectangle: ");  
    scanf("%d",&a);  
    printf("Type width of rectangle: ");  
    scanf("%d",&b);  
    printf("The perimeter of rectangle is: %d",2*(a+b));
```

Sangam  
11401182023

```
return 0;  
}
```

## OUTPUT

Output	Clear
/tmp/gmL81TKwB2.o This is my first C program Type length of rectangle: 2 Type width of rectangle: 4 The perimeter of rectangle is: 12	

### Program:3

Write a C program to calculate area and circumference of a circle.

### ALGORITHM

Step 1: Start

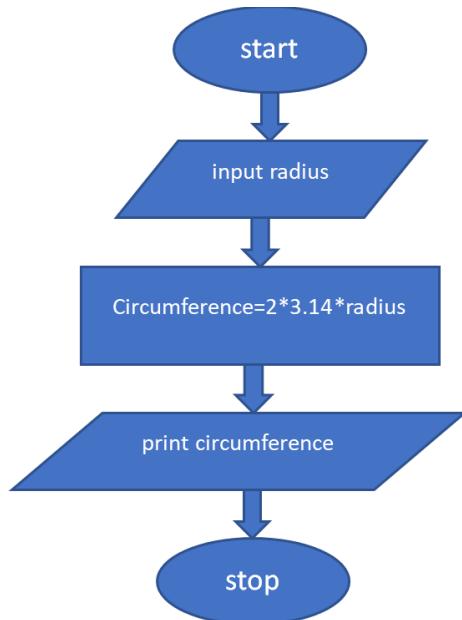
Step 2: input variable radius

Step 3: circumference of circle =  $2 * 3.14 * \text{radius}$

Step 4: print circumference

Step 5: stop

### FLOWCHART



### INPUT

```
int main () {  
    float radius;  
    printf("This is the radius of circle: ");  
    scanf("%f",&radius);  
    printf("The circumference of circle is: %f",2*3.14*radius);  
    return 0;  
}
```

Sangam  
11401182023

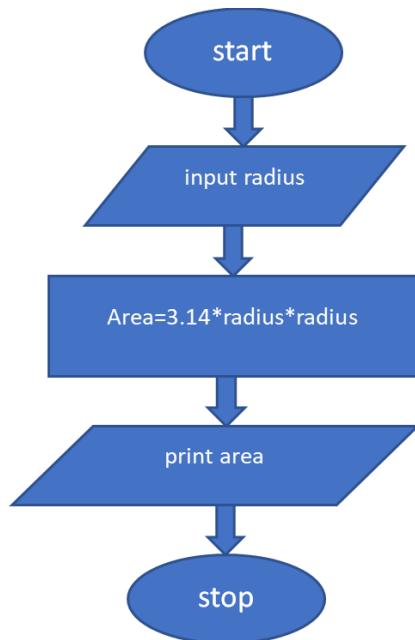
## OUTPUT

```
Output
/tmp/EBEUqpFnEO.o
This is the radius of circle: 2
The circumference of circle is: 12.560000
```

## ALGORITHM

- Step 1: Start
- Step 2: input variable radius
- Step 3: area of circle =  $3.14 * \text{radius} * \text{radius}$
- Step 4: print area
- Step 5: stop

## FLOWCHART



## INPUT

```
int main () {
```

Sangam  
11401182023

```
float radius;  
printf("This is the radius of circle: ");  
scanf("%f",&radius);  
printf("The area of circle is: %f",3.14*radius*radius);  
return 0;  
}
```

## OUTPUT

Output

Clear

```
/tmp/EBEUqpFnE0.o  
This is the radius of circle: 4  
The area of circle is: 50.240000
```

### Program:4

Write a C program to perform addition, subtraction, division and multiplication of two numbers.

### ALGORITHM

Step 1: Start

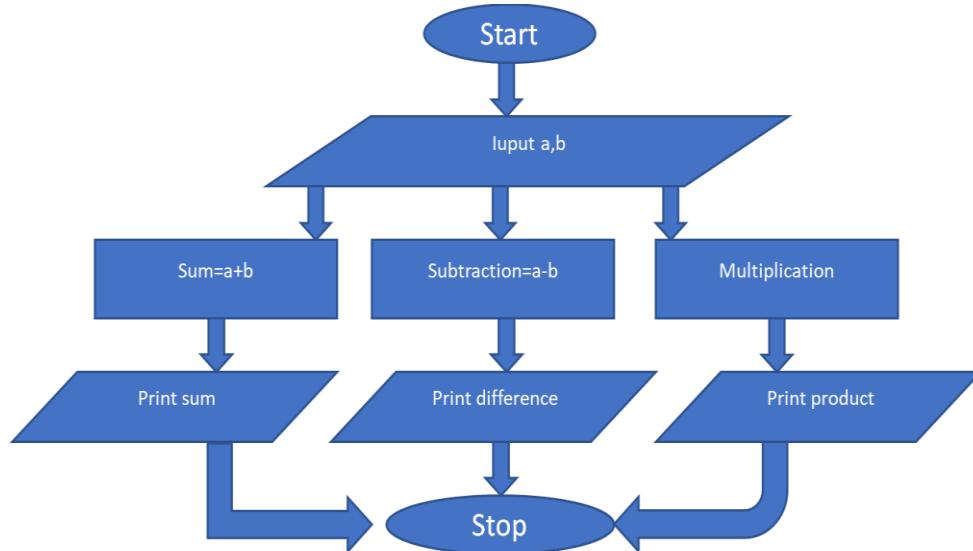
Step 2: read the values of 'a' and 'b'

Step 3: compute the sum, subtraction, multiplication of entered numbers 'a', 'b' as  $a+b$ ,  $a-b$ ,  $a*b$  respectively

Step 4: print sum, subtraction, multiplication

Step 5: stop

### FLOWCHART



### INPUT

```
int main () {  
    int a,b;  
    printf("\nType first number: ");  
    scanf("%d",&a);  
    printf("Type second number: ");  
    scanf("%d",&b);  
    printf("The sum of numbers is: %d",a+b);
```

Sangam  
11401182023

```
printf("\nThe difference of numbers is: %d",a-b);
printf("\nThe product of numbers is: %d",a*b);
return 0;
}
```

## OUTPUT

Output

Clear

```
/tmp/HekXhM6FVS.o
Type first number: 3
Type second number: 6
The sum of numbers is: 9
The difference of numbers is: -3
The product of numbers is: 18
```

## ALGORITHM

Step 1: Start

Step 2: read the values of ‘a’ and ‘b’

Step 3: if num2! =0 do

compute the division of entered numbers ‘a’, ‘b’ as a/b

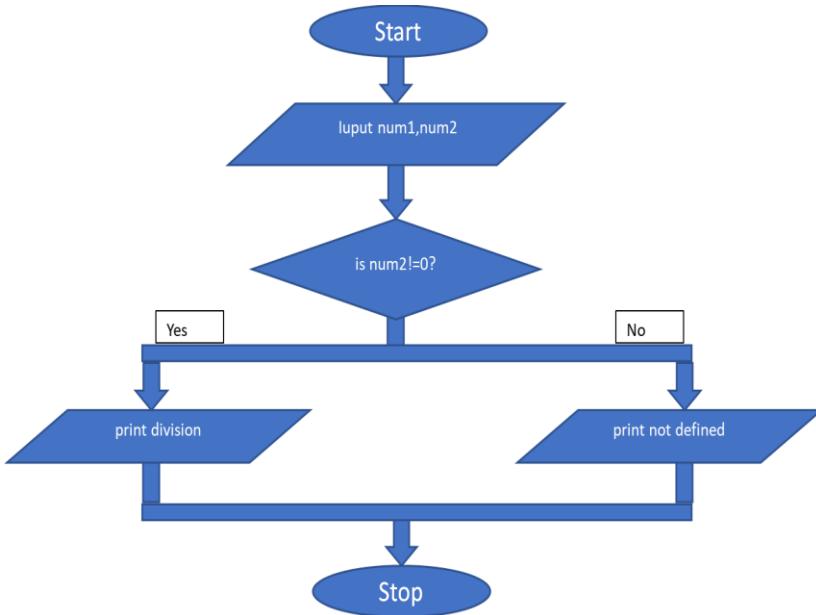
print division

Else

Print not defined

Step 5: stop

## FLOWCHART



## INPUT

```
int main () {  
    float div, num1, num2;  
    printf("Enter First Number: ");  
    scanf("%f", &num1);  
    printf("\nEnter Second Number: ");  
    scanf("%f", &num2);  
    if (num2!=0)  
    {div=num1/num2;  
    printf("\nDivision of %f & %f is = %f", num1, num2, div);} else {printf("this is not defined");}  
    return 0;  
}
```

## OUTPUT

Sangam  
11401182023

Certifications

Output	Clear
<pre>/tmp/OlcKvLVJKI.o Enter First Number : 2 Enter Second Number : 4 Division of 2.000000 &amp; 4.000000 is = 0.500000</pre>	

### Program:5

Write a C program to evaluate each of the following program:

- b)  $v=u+gt$       b)  $s=ut+1/2at^2$   
c)  $v^2 = u^2+2as$

A)

### ALGORITHM

Step 1: Start

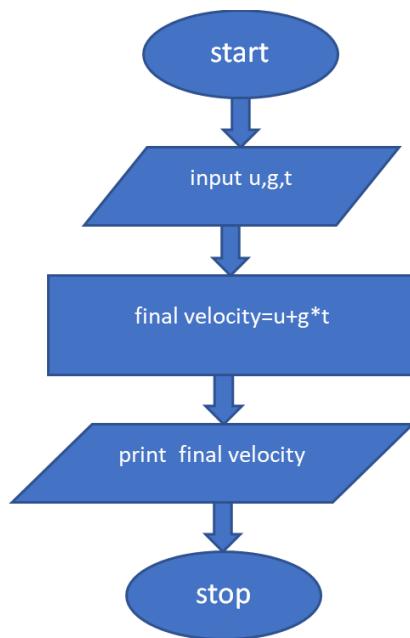
Step 2: read the values of 'u', 'g' and 't'

Step 3: compute the final velocity of object as  $v=u+gt$

Step 4: print final velocity v

Step 5: stop

### FLOWCHART



### INPUT

```
int main () {  
    int u,g,t;  
    printf("This is the initial velocity of the object: ");
```

Sangam  
11401182023

```
scanf("%d",&u);
printf("\nThis is the acceleration of gravity: ");
scanf("%d",&g);
printf("\nThe time taken: ");
scanf("%d",&t);
printf("\nThe final velocity of the object v is: %d",u+g*t);
return 0;
}
```

## OUTPUT

Output	Clear
/tmp/HekXhM6FVS.o This is the initial velocity of the object: 2 This is the acceleration of gravity: 10 The time taken: 4 The final velocity of the object v is: 42	

## ALGORITHM

B)

Step 1: Start

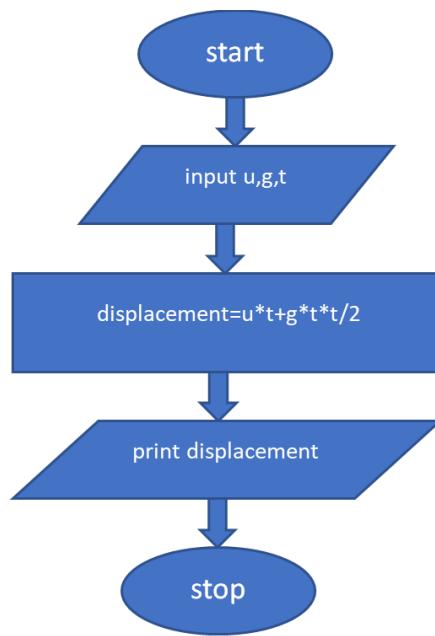
Step 2: read the values of 'u', 'g' and 't'

Step 3: compute the displacement of object as  $s=ut+1/2gt^2$

Step 4: print displacement

Step 5: stop

## FLOWCHART



## INPUT

```
int main () {  
    int u,g,t;  
    printf("This is the initial velocity of the object: ");  
    scanf("%d",&u);  
    printf("\nThis is the acceleration of object: ");  
    scanf("%d",&g);  
    printf("\nThe time taken: ");  
    scanf("%d",&t);  
    printf("\nThe displacement of the object s is: %d",u*t+g*t*t/2);  
    return 0;  
}
```

## OUTPUT

<p>Output</p> <pre>/tmp/HekXhM6FVS.o This is the initial velocity of the object: 2 This is the acceleration of object: 4 The time taken: 5 The displacement of the object s is: 60</pre>	Clear
--	-------

## ALGORITHM

Sangam  
11401182023

Step 1: Start

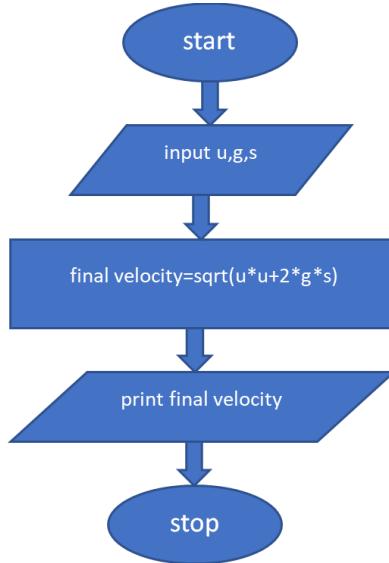
Step 2: read the values of 'u', 'g' and 's'

Step 3: compute the final velocity of object as  $v=\sqrt{u^2+2gs}$

Step 4: print final velocity v

Step 5: stop

## FLOWCHART



## INPUT

```
int main () {  
    float u,g,s;  
    printf("This is the initial velocity of the object: ");  
    scanf("%f",&u);  
    printf("\nThis is the acceleration of object: ");  
    scanf("%f",&g);  
    printf("\nThe displacement of object is: ");  
    scanf("%f",&s);  
    printf("\nThe final velocity of the object v is: %f",sqrt(u*u+2*g*s));  
    return 0;  
}
```

## OUTPUT

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11401182023

Output

```
/tmp/QGqsJJXdGb.o
This is the initial velocity of the object: 2
This is the acceleration of object: 4
The displacement of object is: 4
The final velocity of the object v is: 6.000000
```



### Program:6

Write a C program that takes hours and minutes as input and calculates the total number of minutes.

### ALGORITHM

Step 1: Start

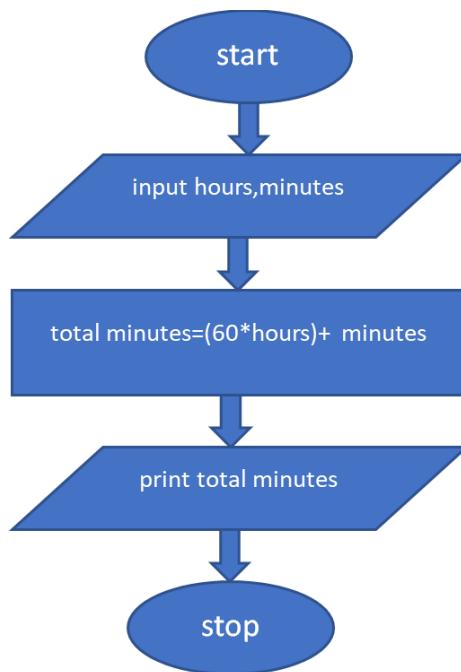
Step 2: read the values of hours and minutes

Step 3: compute the total minutes as  $60 * \text{hours} + \text{minutes}$

Step 4: print total minutes

Step 5: stop

### FLOWCHART



### INPUT

```
int main () {  
    int hours,minutes;  
    printf("Total hours: ");  
    scanf("%d",&hours);  
    printf("\nTotal minutes: ");  
    scanf("%d",&minutes);
```

Sangam  
11401182023

```
printf("\nTotal number of minutes: %d ",(60*hours) +minutes);  
return 0;  
}
```

## OUTPUT

Output	Clear
<pre>/tmp/HekXhM6FVS.o Total hours: 2 Total minutes: 30 Total number of minutes: 150  </pre>	

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11401182023

### Program:7

Write a program in C that reads forename, surname and year of birth and displays the names and year one after another sequentially.

### ALGORITHM

Step 1: Start

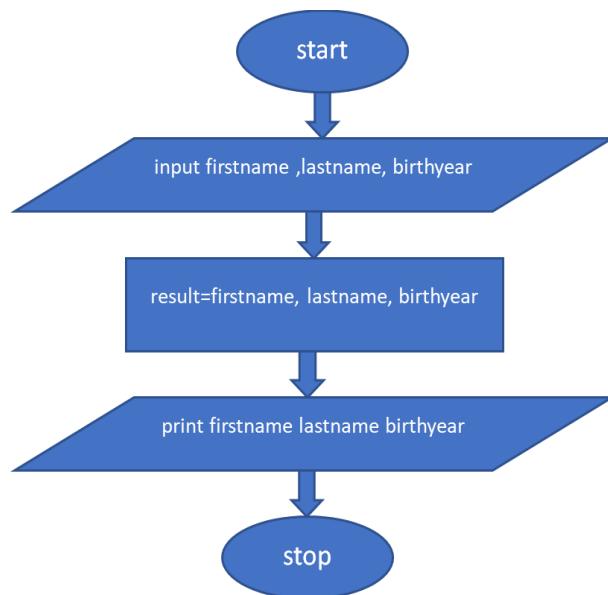
Step 2: read the values of firstname ,lastname and birthyear

Step 3: writes the firstname ,lastname and birthyear as firstname ,lastname, birthyear resp.

Step 4: print firstname lastname birthyear

Step 5: stop

### FLOWCHART



### INPUT

```
int main () {  
    char firstname[20], lastname[20];  
    int birthyear;  
    printf("\nWrite your firstname: ");  
    scanf("%s", firstname);  
    printf("Write your lastname: ");
```

Sangam  
11401182023

```
scanf("%s", lastname);
printf("Type your year of birth: ");
scanf("%d", &birthyear);
printf("%s %s %d\n", firstname, lastname, birthyear);
return 0;
}
```

## OUTPUT

Output	Clear
/tmp/gmL81TKwB2.o Hello world Write your firstname: Sangam Write your lastname: Attri Type your year of birth: 2004 Sangam Attri 2004	

### Program:8

Write a C program that converts Centigrade to Fahrenheit.

### ALGORITHM

Step 1: Start

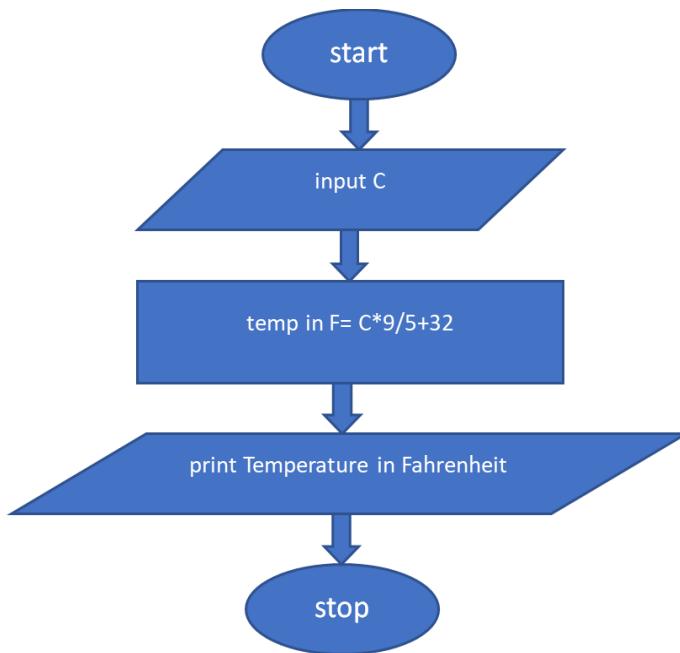
Step 2: read the value of c

Step 3: compute the value of Fahrenheit=  $C*9/5+32$

Step 4: print temperature in Fahrenheit

Step 5: stop

### FLOWCHART



### INPUT

```
int main () {  
    float c;  
    printf("Type temperature in Celsius: ");  
    scanf("%f",&c);  
    printf("\nTemperature in Fahrenheit: %f", c*9/5+32);
```

Sangam  
11401182023

```
return 0;  
}
```

## OUTPUT

Output	Clear
/tmp/HekXhm6FVS.o Type temprature in Celsius: 32 Temperature in Fahrenheit:89.599998	

### Program:9

Write a C Program to calculate the value of nCr.

#### INPUT

```
int main () {  
    int n, r, ncr_var;  
    printf("Enter the value of n:");  
    scanf("%d", &n);  
    printf("\nEnter the value of r:");  
    scanf("%d", &r);  
    ncr_var = fact(n) / (fact(r) * fact (n- r));  
    printf("\nThe value of C(%d,%d) is: %d",n,r,ncr_var);  
}
```

```
int fact (int num)  
{  
    int k = 1, i;  
    if (num == 0)  
    {  
        return(k);  
    }  
    else  
    {  
        for (i = 1; i <= num; i++)  
        {  
            k = k * i;  
        }  
        return(k);  
    }  
}
```

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## OUTPUT

Run	Output
	/tmp/noy010mit0.o Enter the value of n:4 Enter the value of r:2 The value of C(4,2) is: 6

### Program:10

Write a C Program to extract the last two digits from given year.

### ALGORITHM

Step 1: Start

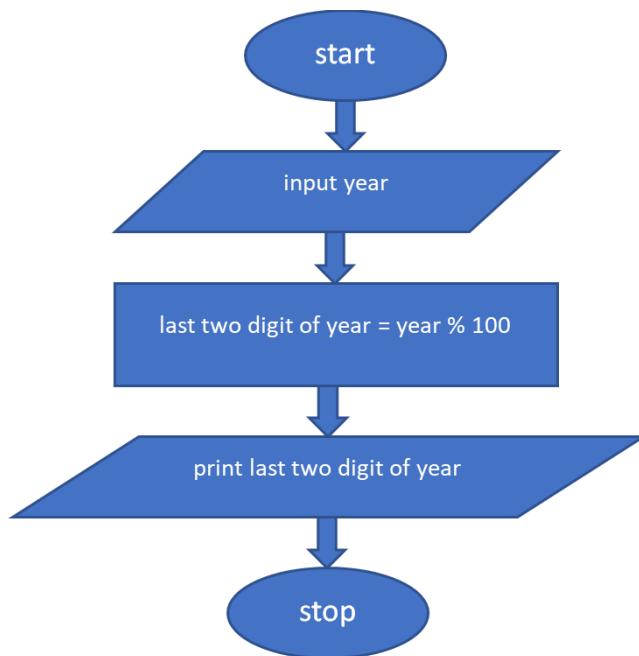
Step 2: read the value of year

Step 3: compute the last two digit of year = year % 100

Step 4: print the last two digit of year

Step 5: stop

### FLOWCHART



### INPUT

```
int main () {  
    int year;  
    printf("Enter the year: ");  
    scanf("%d", &year);  
    printf("Last two digits of year is: %02d", year % 100);
```

Sangam  
11401182023

```
return 0;
```

```
}
```

## OUTPUT

### Output

```
/tmp/HekXhM6FVS.o
Enter the year: 2023
Last two digits of year is: 23
```

## LAB 2 EXPERIMENTS

### Program:1

Write a C program to find the following +, -, \*, /, and % between two numbers.

#### INPUT

```
int main () {  
    int a,b;  
    printf("\nType first number: ");  
    scanf("%d",&a);  
    printf("Type second number: ");  
    scanf("%d",&b);  
    printf("The sum of numbers is: %d",a+b);  
    printf("\nThe difference of numbers is: %d",a-b);  
    printf("\nThe product of numbers is: %d",a*b);  
    printf("\nThe remainder of numbers is: %d",a%b);  
    return 0;  
}
```

#### OUTPUT

	Output
	/tmp/quFrCXTecR.o Type first number: 7 Type second number: 3 The sum of numbers is: 10 The difference of numbers is: 4 The product of numbers is: 21 The remainder of numbers is: 1

#### INPUT

Sangam  
11401182023

```
int main () {  
    float div, num1, num2;  
    printf("Enter First Number: ");  
    scanf("%f", &num1);  
    printf("\nEnter Second Number: ");  
    scanf("%f", &num2);  
    if (num2!=0)  
    {div=num1/num2;  
    printf("\nDivision of %f & %f is = %f", num1, num2, div);}  
    else {printf("this is not defined");}  
    return 0;  
}
```

## OUTPUT

	Output
	/tmp/OlcKvLVJKI.o Enter First Number : 2 Enter Second Number : 4 Division of 2.000000 & 4.000000 is = 0.500000

## Program:2

Write a C program to find the following a++, a--, ++a, and –a.

### INPUT

```
int main () {  
    int a,b,c,d;  
    printf("\nType number: ");  
    scanf("%d",&a);  
    printf("\nType number: ");  
    scanf("%d",&b);  
    printf("\nType number: ");  
    scanf("%d",&c);  
    printf("\nType number: ");  
    scanf("%d",&d);  
    printf("\nThe result is: %d",a++);  
    printf("\nThe result is: %d",b--);  
    printf("\nThe result is: %d",++c);  
    printf("\nThe result is: %d", --d);  
    return 0;  
}
```

### OUTPUT

Output
/tmp/quFrCXTeR.o Type number: 2 Type number: 3 Type number: 4 Type number: 5 The result is: 2 The result is: 3 The result is: 5 The result is: 4

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11401182023

### Program:3

Write a C program to find the following  $a+=b$ ,  $a-=b$ ,  $a*=b$ ,  $a/=b$ ,  $a\% =b$  between two numbers.

#### INPUT

```
int main () {  
    int a,b;  
    printf("Enter number a: ");  
    scanf("%d",&a);  
    printf("Enter number b: ");  
    scanf("%d",&b);  
    printf("\nResult=%d", (a+=b));  
    printf("\nResult=%d", (a-=b));  
    printf("\nResult=%d", (a*=b));  
    printf("\nResult=%d", (a/=b));  
    printf("\nResult=%d", (a\% =b));  
    return 0;  
}
```

#### OUTPUT

	Output
	/tmp/oweRyeFRNf.o Enter number a: 4 Enter number b: 2 Result=6 Result=4 Result=8 Result=4 Result=0

### Program:4

Write a program to check whether two numbers are ==, <, >, >=, <=, != .

#### INPUT

```
int main () {  
    int a,b;  
    printf("\nResult=%d", (a==b));  
    printf("\nResult=%d", (a<b));  
    printf("\nResult=%d", (a>b));  
    printf("\nResult=%d", (a>=b));  
    printf("\nResult=%d", (a<=b));  
    printf("\nResult=%d", (a!=b));  
    return 0;  
}
```

#### OUTPUT

Output
/tmp/YfAKEELeuZ.o Result=1 Result=0 Result=0 Result=1 Result=1 Result=0

### **Program:5**

Write a program to find the following result.

- g) `result= (a==b) && (c>d);`
- h) `result= (a==b) && (c<d);`
- i) `result= (a==b) ||(c<d);`
- j) `result= (a!=b) || (c<d);`
- k) `result= !(a != b);`
- l) `result= !(a== b);`

### **INPUT**

```
int main () {  
    int a=5, b=5, c=10;  
  
    printf("\nResult=%d", (a==b) &&(c>b));  
    printf("\nResult=%d", (a==b) &&(c<b));  
    printf("\nResult=%d", (a==b) ||(c<b));  
    printf("\nResult=%d", (a!=b) ||(c<b));  
    printf("\nResult=%d", !(a!=b));  
    printf("\nResult=%d", ! (a==b));  
  
    return 0;  
}
```

### **OUTPUT**

Sangam  
11401182023

	<b>Output</b>
	<pre>/tmp/YfAKELeuZ.o Result=1 Result=0 Result=1 Result=0 Result=1 Result=0</pre>

### Program:6

Write a program to find the following &,>>, <<, |, ~, ^, between two numbers.

#### INPUT

```
int main () {  
    int a, b;  
    printf("type first number: ");  
    scanf("%d",&a);  
    printf("type second number: ");  
    scanf("%d",&b);  
    printf("\nthe result of a&b is:%d ",a&b);  
    printf("\nthe result of a>>b is:%d ",a>>b);  
    printf("\nthe result of a<<b is:%d ",a<<b);  
    printf("\nthe result of a|b is:%d ",a|b);  
    printf("\nthe result of a~b is:%d ",~b);  
    printf("\nthe result of a^b is:%d ",a^b);  
    return 0;  
}
```

#### OUTPUT

	Output
	<pre>/tmp/5ywDZE9gYy.o type first number: 2 type second number: 3 the result of a&amp;b is:2 the result of a&gt;&gt;b is:0 the result of a&lt;&lt;b is:16 the result of a b is:3 the result of a~b is:-4 the result of a^b is:1</pre>

### Program: 7

Write a program to find the size of the following data types int, float, char, string, long int, double, long float.

#### INPUT

```
int main () {  
    int intType;  
    float floatType;  
    double doubleType;  
    char charType;  
  
    // sizeof evaluates the size of a variable  
    printf("Size of int: %zu bytes\n", sizeof(intType));  
    printf("Size of float: %zu bytes\n", sizeof(floatType));  
    printf("Size of double: %zu bytes\n", sizeof(doubleType));  
    printf("Size of char: %zu byte\n", sizeof(charType));  
    return 0;  
}
```

#### OUTPUT

Output
/tmp/quFrCXTecR.o Size of int: 4 bytes Size of float: 4 bytes Size of double: 8 bytes Size of char: 1 byte

## LAB 3 EXPERIMENTS

### Program:1

Write a C Program to check whether a given number is even or odd.

#### INPUT

```
int main () {  
    int a;  
    printf("Type number: ");  
    scanf("%d",&a);  
    if (a%2==0) {  
        printf("This number is even",&a);  
    }  
    else {  
        printf("This number is odd",&a);  
    }  
    return 0;  
}
```

#### OUTPUT

	Output
	/tmp/jfbbEMt6H7.o Type number: 5 This number is odd

## Program:2

Write a C program to find whether a given year is a leap year or not.

### INPUT

```
int main () {  
    int a;  
    printf("Type year: ");  
    scanf("%d",&a);  
    if (a%4==0) {  
        printf("This year is a leap year. ", &a);  
    }  
    else {  
        printf("This year is not a leap year.",&a);  
    }  
    return 0;  
}
```

### OUTPUT

Output
/tmp/myG6QGha3r.o Type year: 2004 This year is a leap year.

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### Program:3

Write a C Program to read the age of a candidate and determine whether it is eligible for casting his/her own vote.

#### INPUT

```
int main () {  
    int a;  
    printf("Type age: ");  
    scanf("%d",&a);  
    if (a>=18) {  
        printf("He/She is eligible for casting his/her own vote. ", &a);  
    }  
    else {  
        printf("He/She is not eligible for casting his/her own vote.",&a);  
    }  
    return 0;  
}
```

#### OUTPUT

Output
/tmp/myG6QGha3r.o Type age: 18 He/She is eligible for casting his/her own vote.

### **Program:4**

Write a C Program to find largest of three numbers.

#### **INPUT**

```
int main () {  
    int a,b,c;  
    printf("Type three numbers: ");  
    scanf("%d %d %d",&a,&b,&c);  
    if (a>b) {  
        if(a>c) {  
            printf("This is the largest number is: %d",a);}  
        else {  
            printf("This is the largest number is: %d",c);}  
    }  
    else {  
        if(b>c) {  
            printf("This is the largest number is: %d",b);}  
        else {  
            printf("This is the largest number is: %d",c);}  
    }  
    return 0;  
}
```

#### **OUTPUT**

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	Output
/tmp/3tMHIRcIPW.o	Type three numbers: 1
2	
3	This is the largest number is: 3

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### Program:5

Write a C Program to accept a coordinate point in a XY coordinate system and determine in which quadrant the coordinate point lies.

#### INPUT

```
int main() {  
    int x,y;  
    printf("Input the coordinate point of x and y axis\n");  
    scanf("%d%d",&x,&y);  
    if(x>0 && y>0)  
        printf("The Coordinates (%d,%d) lies in the First quadrant\n",x,y);  
    else if(x<0 && y>0)  
        printf("The Coordinates (%d,%d) lies in the second quadrant\n",x,y);  
    else if(x<0 && y<0)  
        printf("The Coordinates (%d,%d) lies in the third quadrant\n",x,y);  
    else if(x>0 && y<0)  
        printf("The Coordinate (%d,%d) lies in the fourth quadrant\n",x,y);  
    else if(x==0 && y==0)  
        printf("The Coordinates (%d,%d) lies on the origin\n",x,y);  
  
    return 0;  
}
```

#### OUTPUT

Output

```
/tmp/HJCTBgxIOX.o  
Input the coordinate point of x and y axis  
1  
4  
The Coordinates (1,4) lies in the First quadrant
```

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### Program:6

Write a C Program to check whether a triangle is Equilateral, Isosceles or Scalene.

#### INPUT

```
int main() {  
    int x,y,z;  
    printf("Input the sides of a triangle\n");  
    scanf("%d%d%d",&x,&y,&z);  
    if(x==y && y==z)  
        printf("print equilateral\n");  
    else if(x==y|| y==z)  
        printf("print isosceles\n");  
    else {  
        printf("print scalar\n");  
    }  
    return 0;  
}
```

#### OUTPUT

Output
/tmp/HJCTBgxI0X.o Input the sides of a triangle 4 4 5 print isosceles

### **Program:7**

Write a C Program to check whether an alphabet is a vowel or consonant.

#### **INPUT**

```
int main () {  
    char c;  
  
    int lowercase_vowel, uppercase_vowel;  
    printf("Enter an alphabet: ");  
    scanf("%c", &c);  
  
    // evaluates to 1 if variable c is a lowercase vowel  
    lowercase_vowel = (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u');  
  
    // evaluates to 1 if variable c is a uppercase vowel  
    uppercase_vowel = (c == 'A' || c == 'E' || c == 'T' || c == 'O' || c == 'U');  
  
    // evaluates to 1 (true) if c is a vowel  
    if (lowercase_vowel || uppercase_vowel)  
        printf("%c is a vowel.", c);  
    else  
        printf("%c is a consonant.", c);  
  
    return 0;  
}
```

#### **OUTPUT**

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Output
/tmp/tVBG21WlYE.o Enter an alphabet: c c is a consonant.

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### Program:8

Write a C Program to read roll no, name and marks of three subjects and calculate the total, percentage and division.

#### INPUT

```
int main() {  
    char name;  
    int roll,a,b,c,sum;  
    printf("Write your name: ");  
    scanf("%lc",&name);  
    printf("Write your Roll No.: ");  
    scanf("%d",&roll);  
    printf("Write your marks in three subjects out of 100: ");  
    scanf("%d%d%d",&a,&b,&c);  
    sum=a+b+c;  
    printf("Total marks obtained:%d",a+b+c);  
    printf("\nTotal Percentage:%d", (a+b+c)/3);  
    if(sum>=250&&sum<=300){  
        printf("\nDivision:A+");  
    }  
    else if(sum>=200&&sum<250){  
        printf("\nDivision:A");  
  
    }  
    else if(sum>=150&&sum<200){  
        printf("\nDivision:B");  
  
    }  
    else if(sum>=100&&sum<=150){  
        printf("\nDivision:C");  
    }  
}
```

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```
}
```

```
else if(sum<=100){
```

```
    printf("\nFAIL");
```

```
}
```

```
return 0;
```

```
}
```

## OUTPUT

<p>Output</p>	Clear
<pre>/tmp/R61qNXpWRz.o Write your name: S Write your Roll No.: 114 Write your marks in three subjects out of 100: 98 100 97 Total marks obtained:295 Total Percentage:98 Division:A+</pre>	

## LAB 4 EXPERIMENTS

### Program:1

Write a program in C to display first ten natural numbers.

#### INPUT

```
int main () {  
    int i;  
    for (i=1; i<=10; i++) {  
        printf("%d \n",i);  
    }  
    return 0;  
}
```

#### OUTPUT

Output	Clear
/tmp/wxysJFi3NQ.o 1 2 3 4 5 6 7 8 9 10	

## Program:2

Write a program in C to display the cubes of number up to given integer.

### INPUT

```
int main () {  
    int i;  
    for (i=1; i<=4; i++) {  
        printf("The number is: %d and cube of number is: %d \n",i,i*i*i);  
    }  
    return 0;  
}
```

### OUTPUT

Output
/tmp/wxysJFi3NQ.o The number is:1 and cube of number is:1 The number is:2 and cube of number is:8 The number is:3 and cube of number is:27 The number is:4 and cube of number is:64

### Program:3

Write a program in C to display the n terms of odd natural numbers and their sum.

#### INPUT

```
int main() {  
    int i,n,sum;  
  
    printf("Input number of terms : ");  
    scanf("%d",&n);  
    printf("\nThe odd numbers are :");  
    for(i=1;i<=n;i++)  
    {  
        printf("%d ",2*i-1);  
        sum+=2*i-1;  
    }  
    printf("\nThe Sum of odd Natural Number upto %d terms : %d \n",n,sum);  
  
    return 0;  
}
```

#### OUTPUT

Output
/tmp/AZxja6971Z.o Input number of terms : 10 The odd numbers are :1 3 5 7 9 11 13 15 17 19 The Sum of odd Natural Number upto 10 terms : 100

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**Program:4** Write a program in C to display the pattern like right angle triangle with a number.

**INPUT**

**OUTPUT**

**Program:5** Write a program in C to make such a pattern like right angle triangle with a number which will repeat a number in a row.

**INPUT**

**OUTPUT**

**Program:6** Write a program in C to make such a pattern like right angle triangle with number increased by 1.

**INPUT**

**OUTPUT**

**Program:7** Write a program in C to make such a pattern like a pyramid with numbers increased by 1.

**INPUT**

**OUTPUT**

**Program:8** Write a program in C to make such a pattern like a pyramid with an asterisk.

**INPUT**

**OUTPUT**

**Program:9** Write a program in C to display the pattern like a diamond.

**INPUT**

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**OUTPUT**

**Program:**10 Write a program in C to Pascal's triangle.

**INPUT**

**OUTPUT**