51. Execute a program to display count of number of special characters in a sentence

#include <string.h>

int main()

{

    char s[1000];

    int i,alphabets=0,digits=0,specialcharacters=0;

    printf("Enter  the string : ");

    gets(s);

    for(i=0;s[i];i++)

    {

        if((s[i]>=65 && s[i]<=90)|| (s[i]>=97 && s[i]<=122) )

          alphabets++;

        else if(s[i]>=48 && s[i]<=57)

         digits++;

        else

         specialcharacters++;

}

    printf("Alphabets = %d\n",alphabets);

    printf("Digits = %d\n",digits);

    printf("Special characters = %d", specialcharacters);

    return 0;

}

52. Execute a program to display roots of Quadratic equation

#include <math.h>

#include <stdio.h>

int main()

{

double a, b, c, discriminant, root1, root2, realPart, imagPart;

printf("Enter coefficients a, b and c: ");

scanf("%lf %lf %lf", &a, &b, &c);

discriminant = b \* b - 4 \* a \* c;

if (discriminant > 0) {

root1 = (-b + sqrt(discriminant)) / (2 \* a);

root2 = (-b - sqrt(discriminant)) / (2 \* a);

printf("root1 = %.2lf and root2 = %.2lf", root1, root2);

}

// condition for real and equal roots

else if (discriminant == 0) {

root1 = root2 = -b / (2 \* a);

printf("root1 = root2 = %.2lf;", root1);

{

else {

realPart = -b / (2 \* a);

imagPart = sqrt(-discriminant) / (2 \* a);

printf("root1 = %.2lf+%.2lfi and root2 = %.2f-%.2fi", realPart, imagPart, realPart, imagPart)

}

return 0;

}

53. Execute a program to display Area of triangle

#include<stdio.h>

int main()

{

float b ,h, area;

printf(“enter the height”);

scanf(“%f”,&h);

printf(“enter the base”);

scanf(“%f”,&b);

printf(“enter the area”);

scanf(“%f”,&area);

area = (b\*h) / 2 ;

printf("\n\n Area of Triangle is: %f",area);

return (0);

}

54. Execute a program to display Area of Square

#include <stdio.h>

int main()

{

int square\_side, area;

printf("Enter the side of square: ");

scanf("%d", &square\_side);

area = square\_side \* square\_side;

printf("Area of the square: %d", area);

return 0;

}

55. Execute a program to display area of Rectangle

int main()

{

float length,breadth,area;

printf("enter length of rectangle: ");

scanf("%f",&length);

printf("enter breadth of rectangle: ");

scanf("%f",&breadth);

area=(length\*breadth);

printf("Area: %f\n",area);

return 0;

}

56. Execute a program to display Rate of interest

Simple interest

#include<stdio.h>

int main()

{

int p,r,t,amt;

printf("Input principle, Rate of interest & time to find simple interest: \n");

scanf("%d%d%d",&p,&r,&t);

amt=(p\*r\*t)/100;

printf("Simple interest = %d",amt);

return 0;

}

57. Execute a program to display Reading a File

#include <stdio.h>  
#include <stdlib.h>

int main()  
{  
   char ch, file\_name[25];  
   FILE \*fp;

   printf("Enter name of a file you wish to see**\n**");  
   gets(file\_name);

   fp = fopen(file\_name, "r");

   if (fp == NULL)  
   {  
      perror("Error while opening the file.**\n**");  
      exit(EXIT\_FAILURE);  
   }

   printf("The contents of %s file are:**\n**", file\_name);

   while((ch = fgetc(fp)) != EOF)  
      printf("%c", ch);

   fclose(fp);  
   return 0;

}

58.execute a c program to display writing a file

#include<stdio.h>

#include<stdlib.h>

int main()

{

Int num;

FILE\*fptr;

Fptr=fopen(“c:\\program.txt”.”w”);

If(ptr==NULL)

{

Printf(“error!”);

Exit(1);

}

Printf(“enter num:”);

Scanf(“%d”,&num);

Fprintf(“fptr,”%d”,num);

fclose(fptr);

return 0;

}

59.execute a c program to perform appendment of a file

#include <stdio.h>

int main()

{

FILE \*fp;

char ch;

char \*filename = "file\_append.txt";

char \*content = "This text is appeneded later to the file, using C programming.";

/\* open for writing \*/

fp = fopen(filename, "r");

printf("\nContents of %s -\n\n", filename);

while ((ch = fgetc(fp) )!= EOF)

{

printf ("%c", ch);

}

fclose(fp);

fp = fopen(filename, "a");

/\* Write content to file \*/

fprintf(fp, "%s\n", content);

fclose(fp);

fp = fopen(filename, "r");

printf("\nContents of %s -\n", filename);

while ((ch = fgetc(fp) )!= EOF)

{

printf ("%c", ch);

}

fclose(fp);

return 0;

}

60. Execute a program to display Number is prime or Composite

#include <stdio.h>

int main()

{

int n, i, flag = 0;

printf("Enter a positive integer: ");

scanf("%d", &n);

for (i = 2; i <= n / 2; ++i)

{

if (n % i == 0) {

flag = 1;

break;

}

}

if (n == 1) {

printf("1 is neither prime nor composite.");

}

Else

{

if (flag == 0)

printf("%d is a prime number.", n);

else

printf("%d is not a prime number.", n);

}

return 0;

}