CSA5734-FUNDAMENTALS OF COMPUTING FOR DATABASE SYSTEM

DATE:07-10-2022 **NAME:B.VINEETHA**

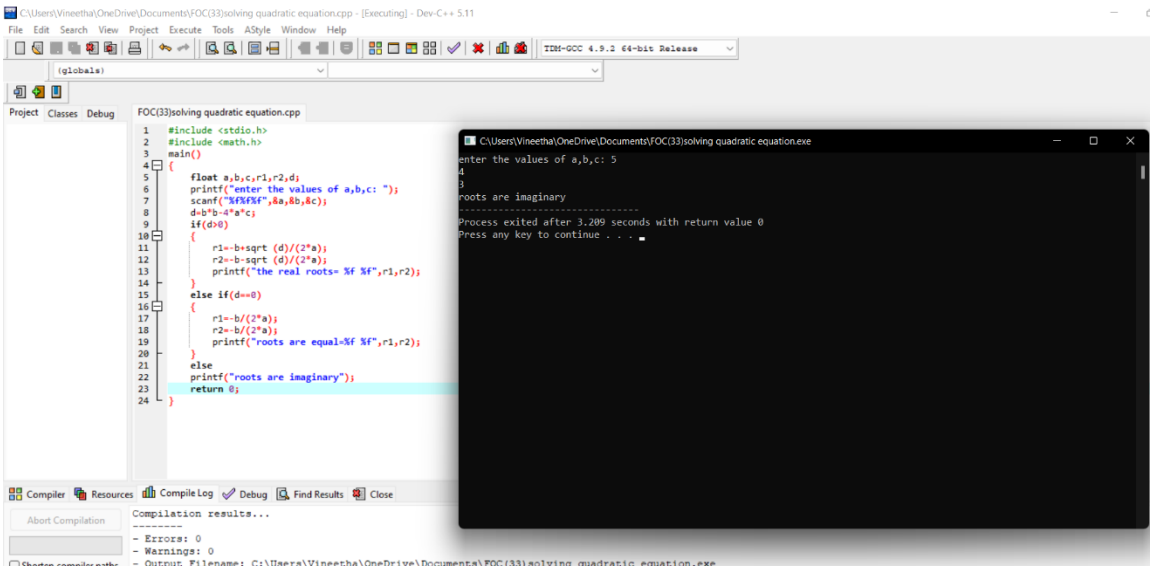
DAY:04 **REG.NO:192110487**

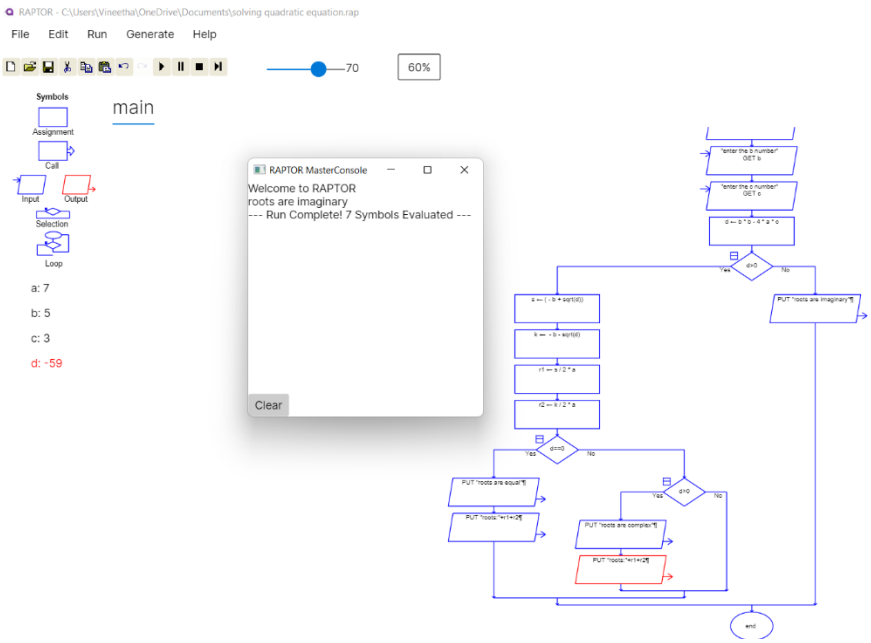
1. C Program to solve quadratic equation

PROGRAM:

```
#include <stdio.h>
#include <math.h>
main()
{
    float a,b,c,r1,r2,d;
    printf("enter the values of a,b,c: ");
    scanf("%f%f%f",&a,&b,&c);
    d=b*b-4*a*c;
    if(d>0)
    {
        r1=-b+sqrt (d)/(2*a);
        r2=-b-sqrt (d)/(2*a);
        printf("the real roots= %f %f",r1,r2);
    }
    else if(d==0)
    {
        r1=-b/(2*a);
        r2=-b/(2*a);
        printf("roots are equal=%f %f",r1,r2);
    }
```

```
    else
    printf("roots are imaginary");
    return 0;
}
```

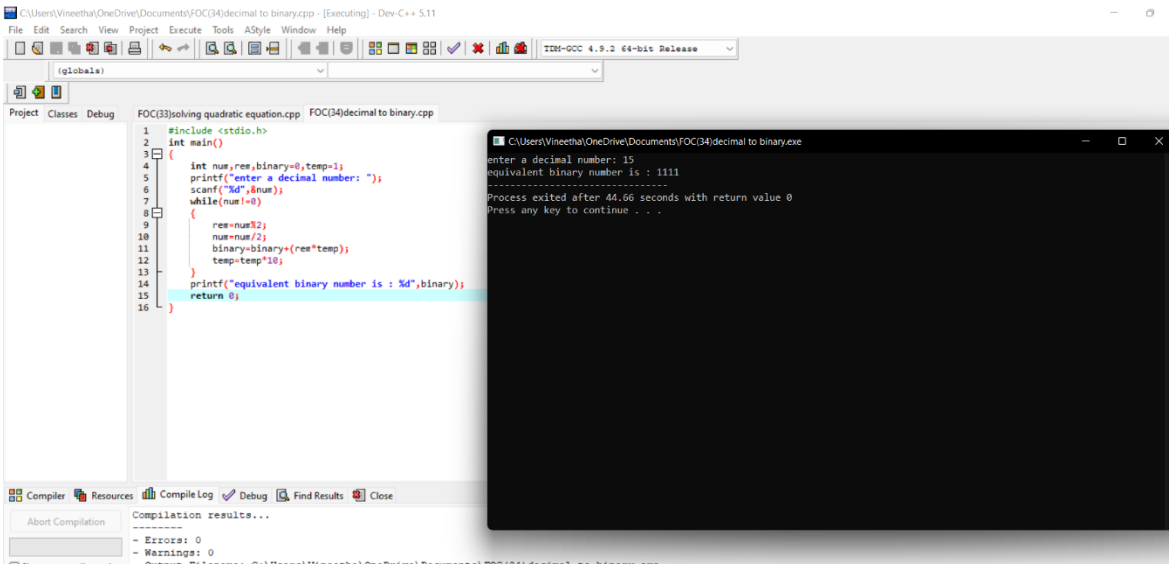




2. C Program for decimal to binary conversion

PROGRAM:

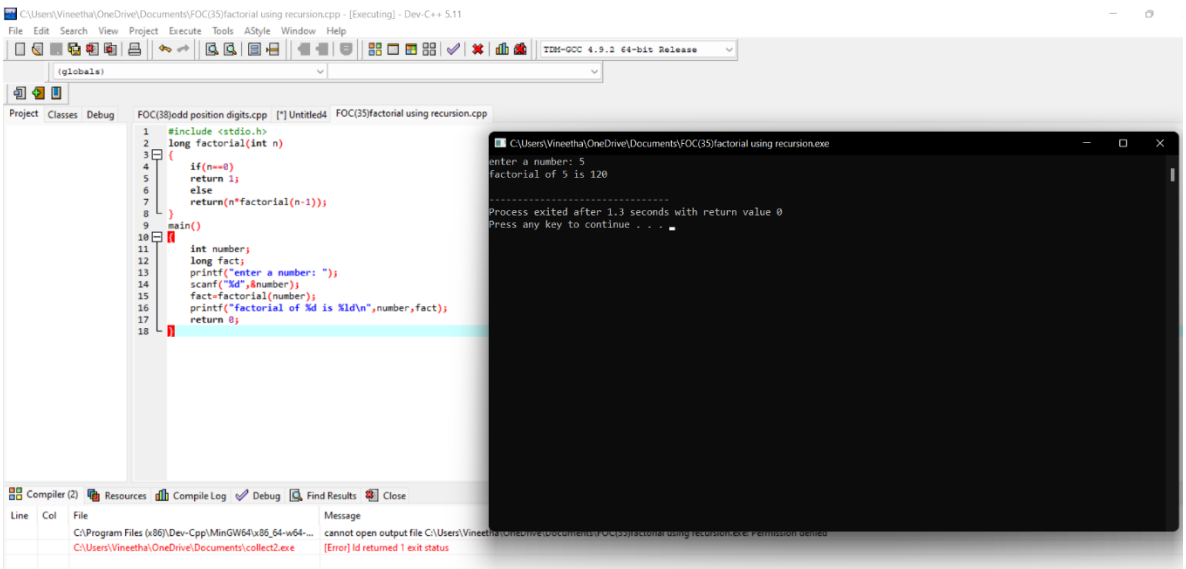
```c
#include <stdio.h>
int main()
{
    int num,rem,binary=0,temp=1;
    printf("enter a decimal number: ");
    scanf("%d",&num);
    while(num!=0)
    {
        rem=num%2;
        num=num/2;
        binary=binary+(rem*temp);
        temp=temp*10;
    }
    printf("equivalent binary number is : %d",binary);
    return 0;
}
```

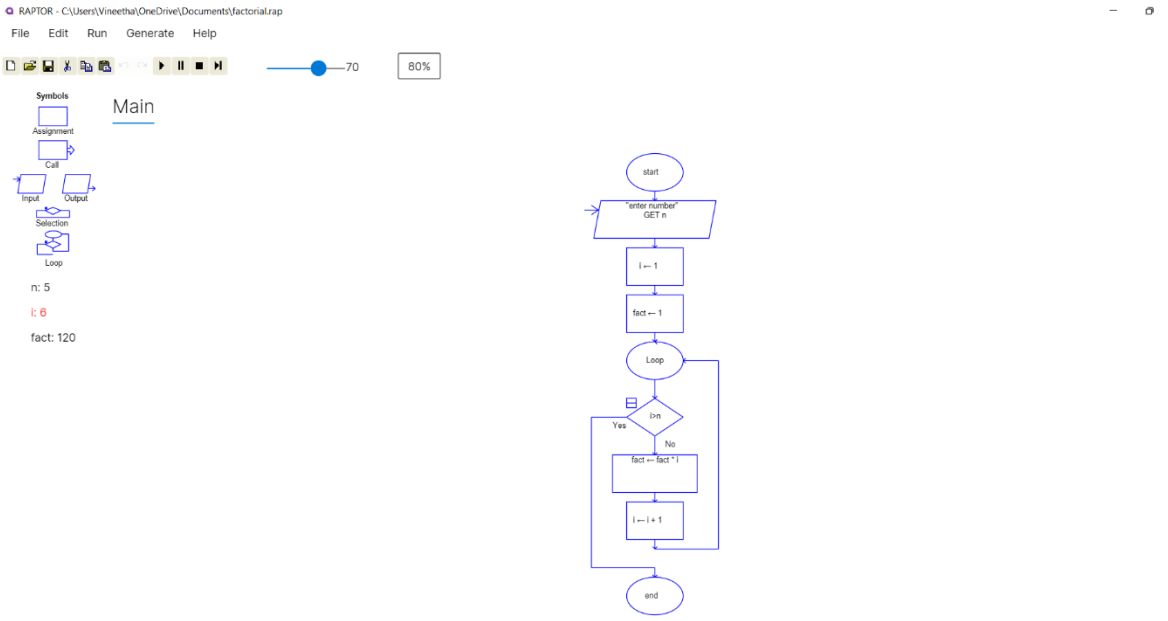


3. C Program factorial using recursion

PROGRAM:

```c
#include <stdio.h>
long factorial(int n)
{
    if(n==0)
    return 1;
    else
    return(n*factorial(n-1));
}
main()
{
    int number;
    long fact;
    printf("enter a number: ");
    scanf("%d",&number);
    fact=factorial(number);
    printf("factorial of %d is %ld\n",number,fact);
    return 0;
}
```

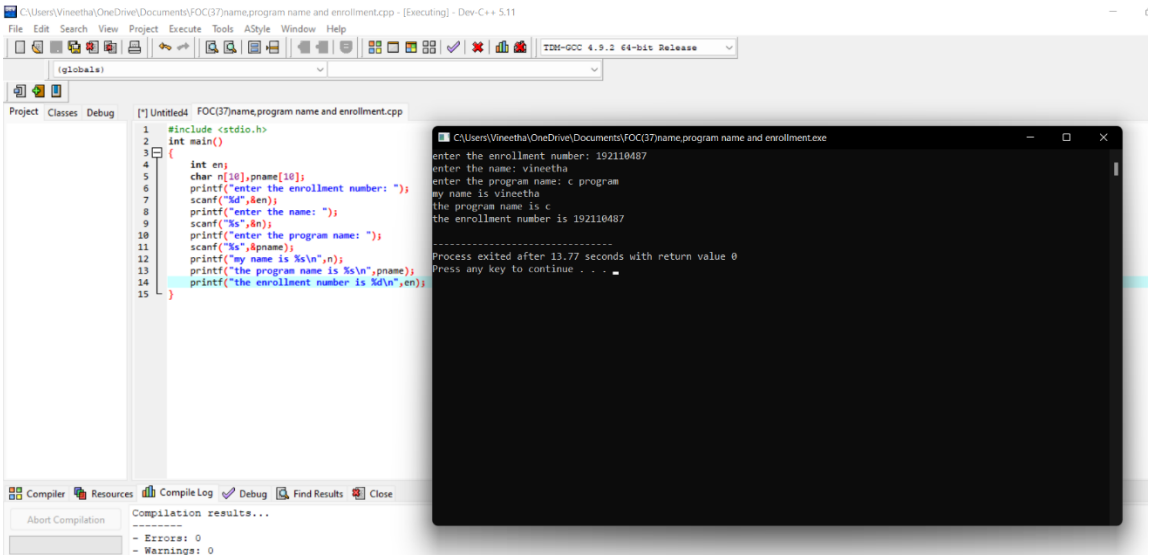


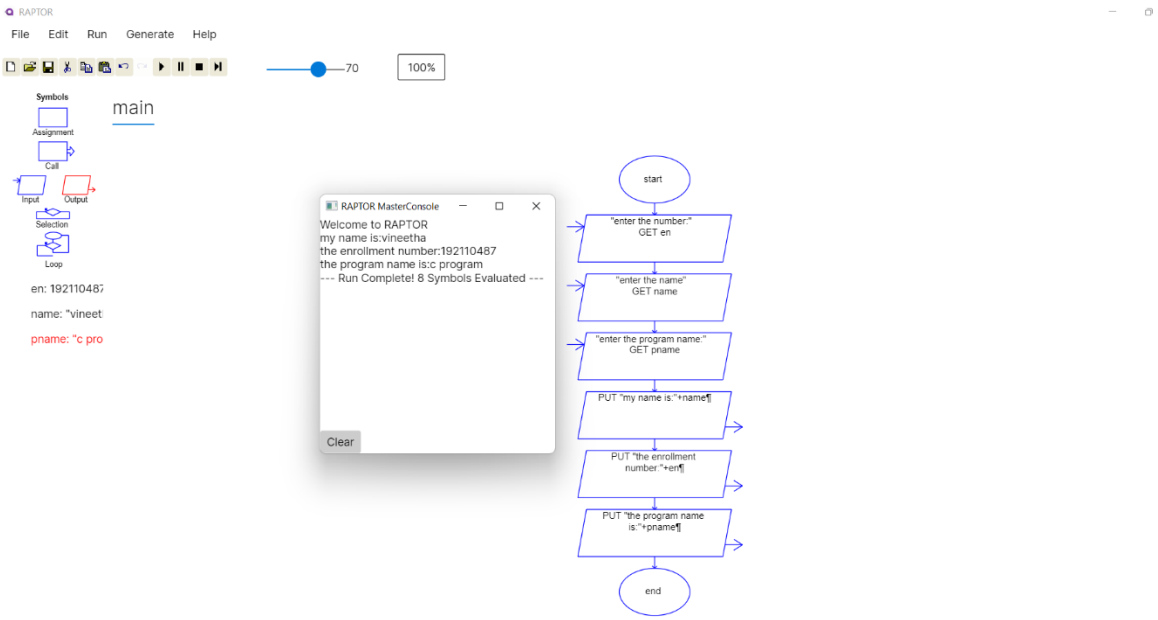


4. C script to ask your name, program name and enrollment number and print it on the screen.

PROGRAM:

```
#include <stdio.h>
int main()
{
    int en;
    char n[10],pname[10];
    printf("enter the enrollment number: ");
    scanf("%d",&en);
    printf("enter the name: ");
    scanf("%s",&n);
    printf("enter the program name: ");
    scanf("%s",&pname);
    printf("my name is %s\n",n);
    printf("the program name is %s\n",pname);
    printf("the enrollment number is %d\n",en);
}
```



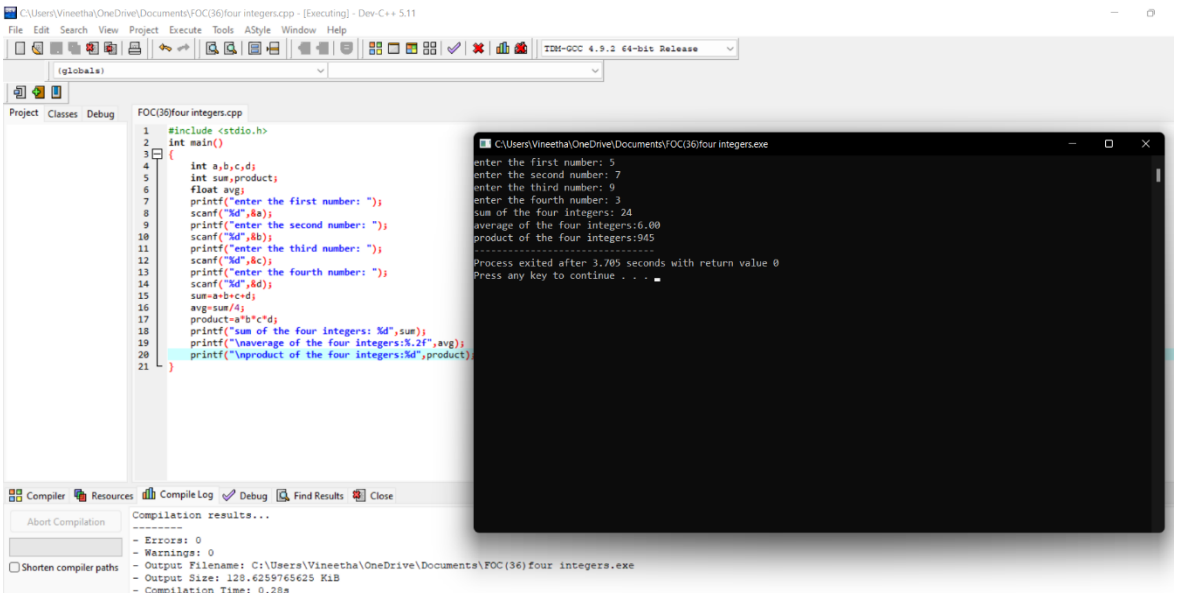


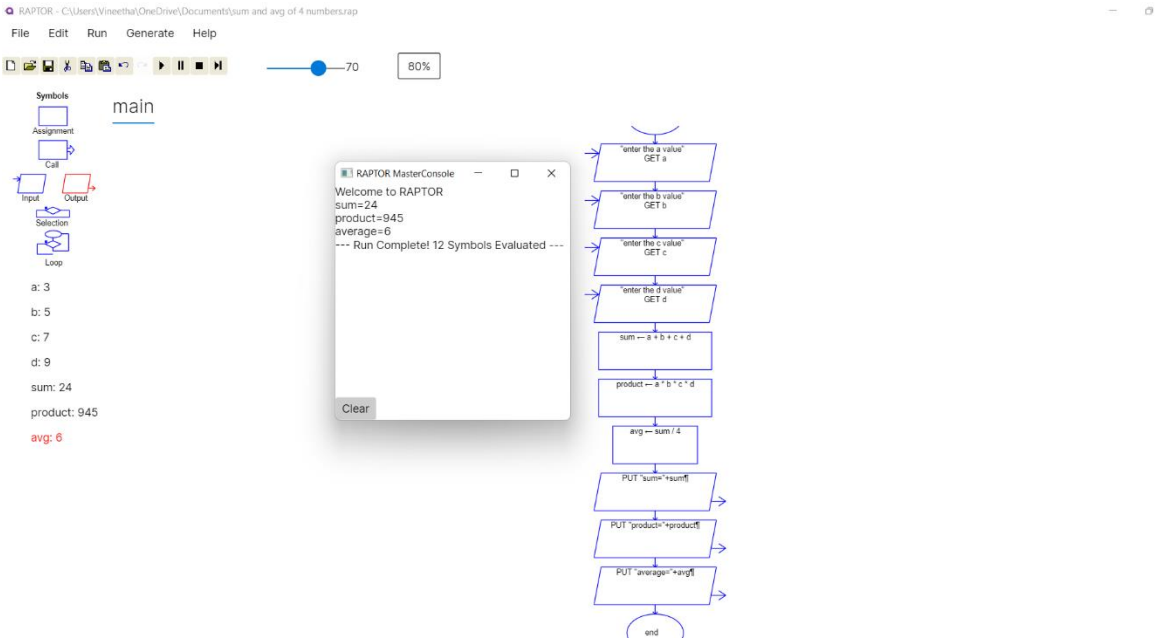
5. C script to find the sum, the average and the product of the four integers entered

PROGRAM:

```
#include <stdio.h>
int main()
{
    int a,b,c,d;
```

```
    int sum,product;
    float avg;
    printf("enter the first number: ");
    scanf("%d",&a);
    printf("enter the second number: ");
    scanf("%d",&b);
    printf("enter the third number: ");
    scanf("%d",&c);
    printf("enter the fourth number: ");
    scanf("%d",&d);
    sum=a+b+c+d;
    avg=sum/4;
    product=a*b*c*d;
    printf("sum of the four integers: %d",sum);
    printf("\naverage of the four integers:%.2f",avg);
    printf("\nproduct of the four integers:%d",product);
}
```

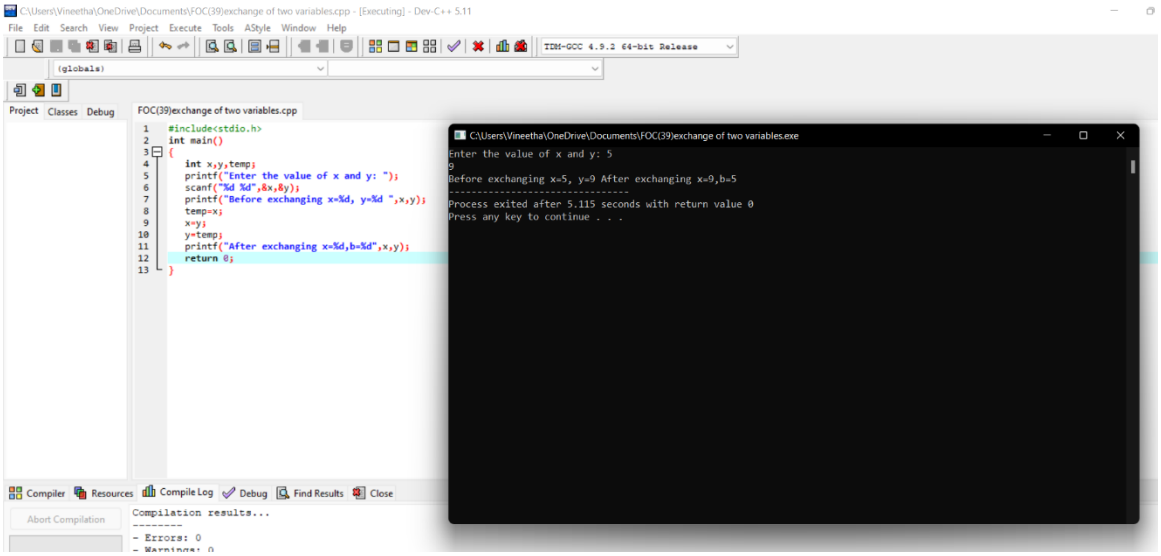


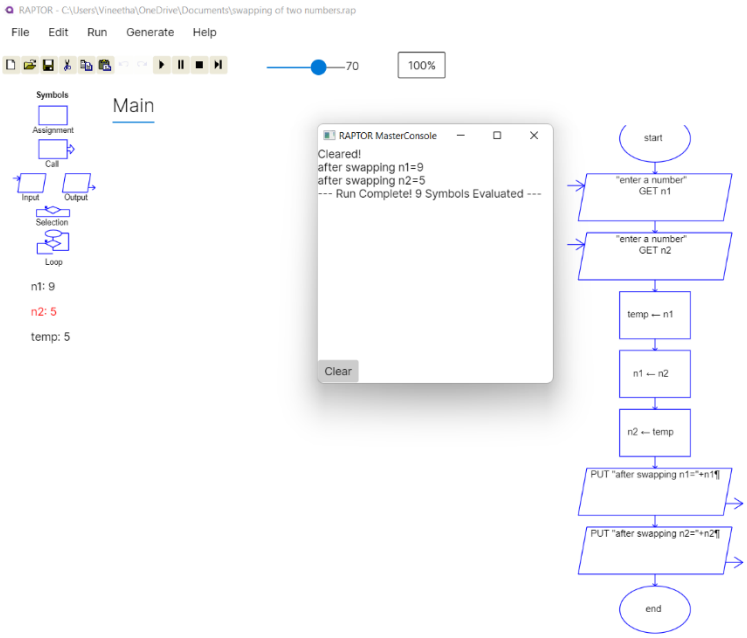


6. C program to exchange the values of two variables

PROGRAM:

```
#include<stdio.h>
int main()
{
  int x,y,temp;
  printf("Enter the value of x and y: ");
  scanf("%d %d",&x,&y);
  printf("Before exchanging x=%d, y=%d ",x,y);
  temp=x;
  x=y;
  y=temp;
  printf("After exchanging x=%d,b=%d",x,y);
  return 0;
}
```



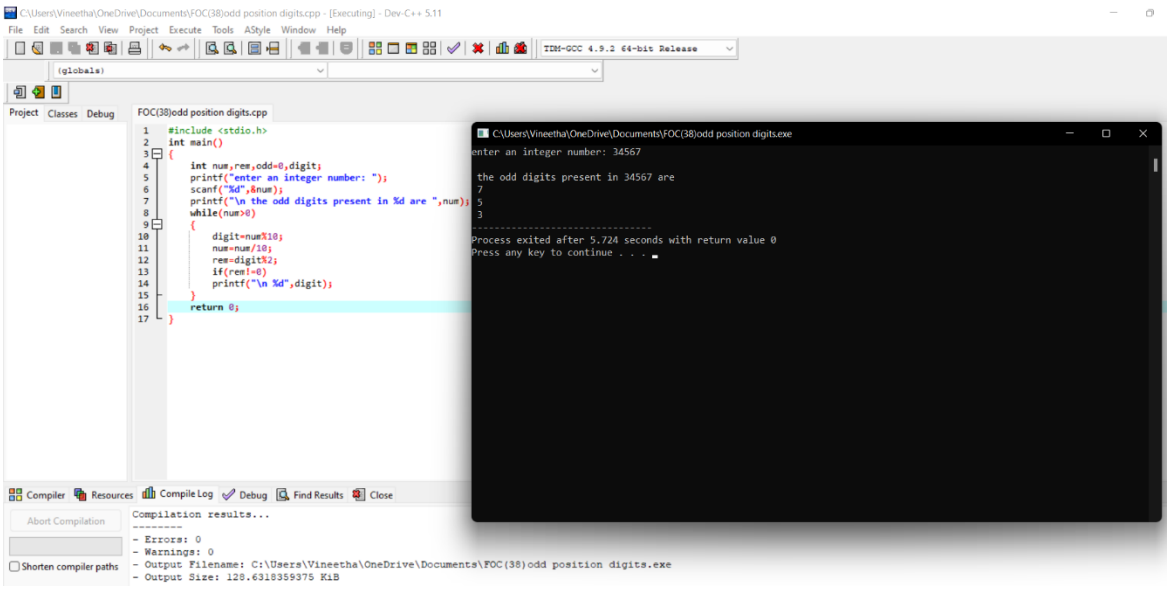


7. C script to display the digits which are in odd position in a given 5 digit number

PROGRAM:

```
#include <stdio.h>
int main()
{
    int num,rem,odd=0,digit;
```

```
    printf("enter an integer number: ");
    scanf("%d",&num);
    printf("\n the odd digits present in %d are ",num);
    while(num>0)
    {
        digit=num%10;
        num=num/10;
        rem=digit%2;
        if(rem!=0)
        printf("\n %d",digit);
    }
    return 0;
}
```



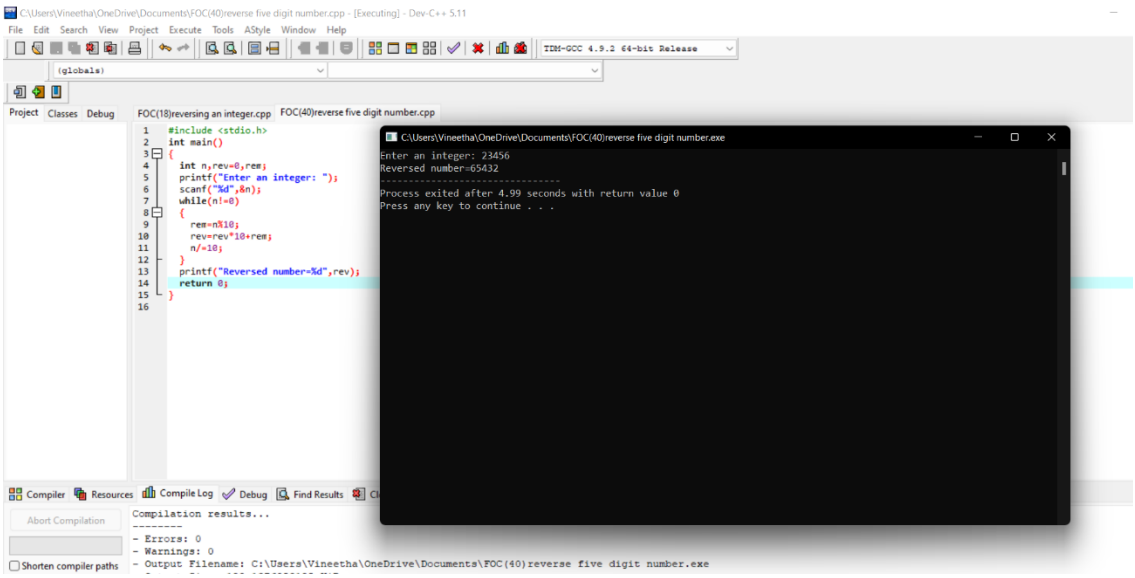
8. C program to reverse the digits of five digit integer

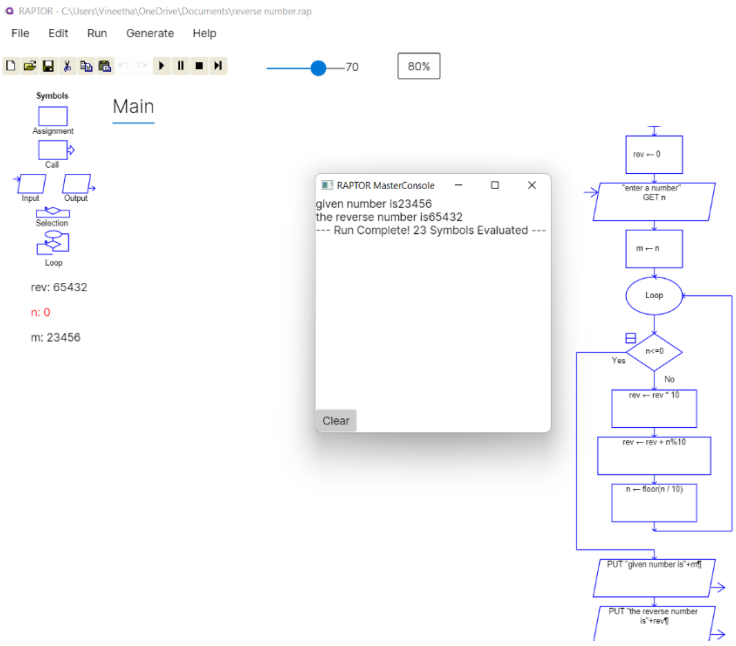
PROGRAM:

PROGRAM:

```
#include <stdio.h>
int main()
```

```
{
  int n,rev=0,rem;
  printf("Enter an integer: ");
  scanf("%d",&n);
  while(n!=0)
  {
    rem=n%10;
    rev=rev*10+rem;
    n/=10;
  }
  printf("Reversed number=%d",rev);
  return 0;
}
```



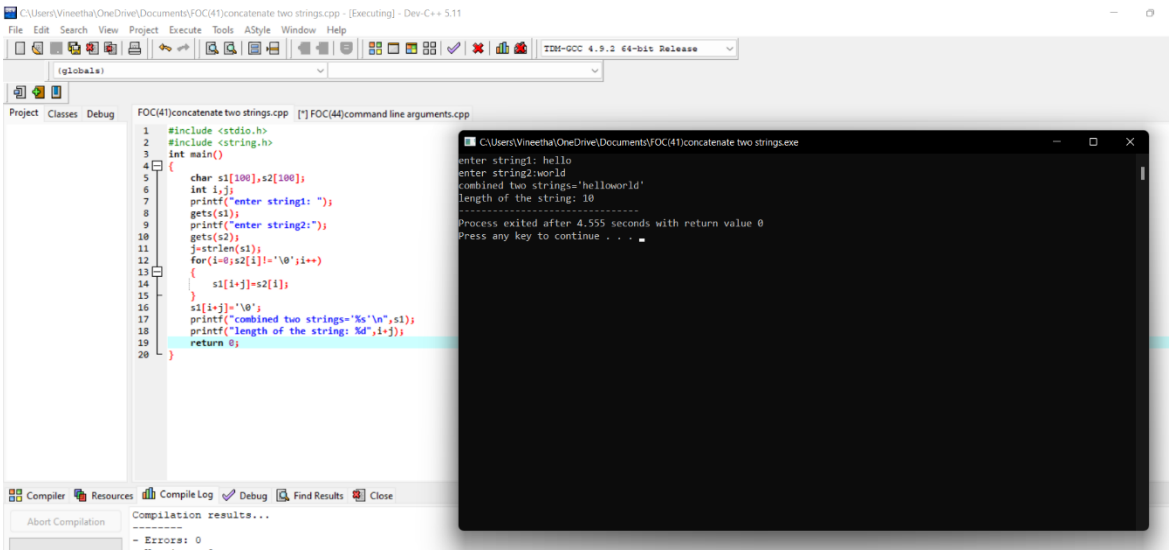


9. C program to concatenate two strings and find the length of the resultant string

PROGRAM:

```
#include <stdio.h>
#include <string.h>
int main()
{
    char s1[100],s2[100];
    int i,j;
    printf("enter string1: ");
    gets(s1);
    printf("enter string2:");
    gets(s2);
    j=strlen(s1);
    for(i=0;s2[i]!='\0';i++)
    {
        s1[i+j]=s2[i];
    }
    s1[i+j]='\0';
    printf("combined two strings='%s'\n",s1);
```

```
    printf("length of the string: %d",i+j);
    return 0;
}
```

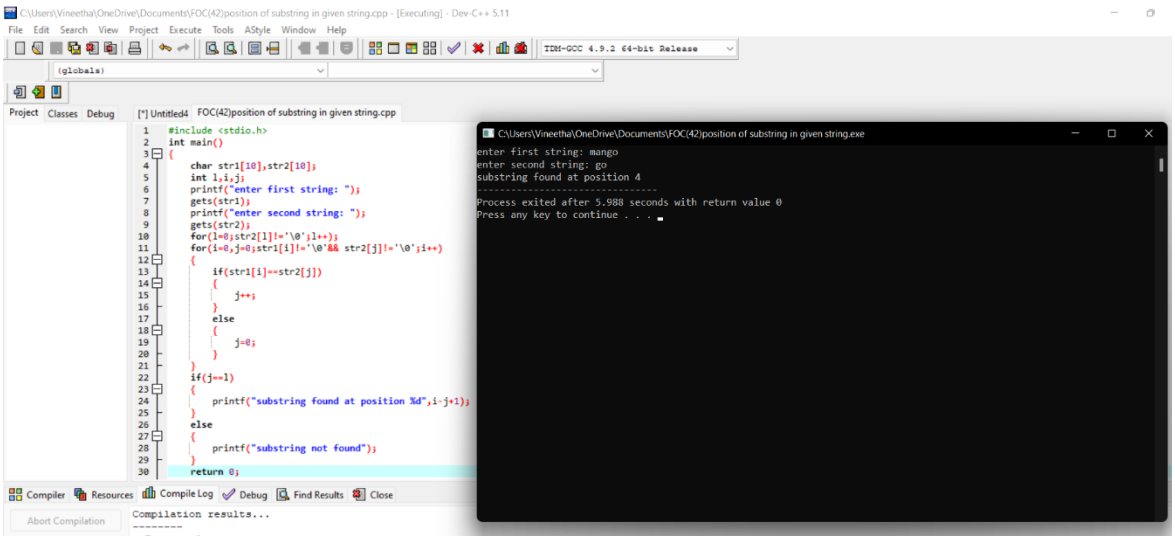


10. C program to find the position of substring in given string

PROGRAM:

```
#include <stdio.h>
int main()
{
    char str1[10],str2[10];
    int l,i,j;
    printf("enter first string: ");
    gets(str1);
    printf("enter second string: ");
    gets(str2);
    for(l=0;str2[l]!='\0';l++);
    for(i=0,j=0;str1[i]!='\0'&& str2[j]!='\0';i++)
    {
        if(str1[i]==str2[j])
        {
```

```
            j++;
        }
        else
        {
            j=0;
        }
    }
    if(j==l)
    {
        printf("substring found at position %d",i-j+1);
    }
    else
    {
        printf("substring not found");
    }
    return 0;
}
```

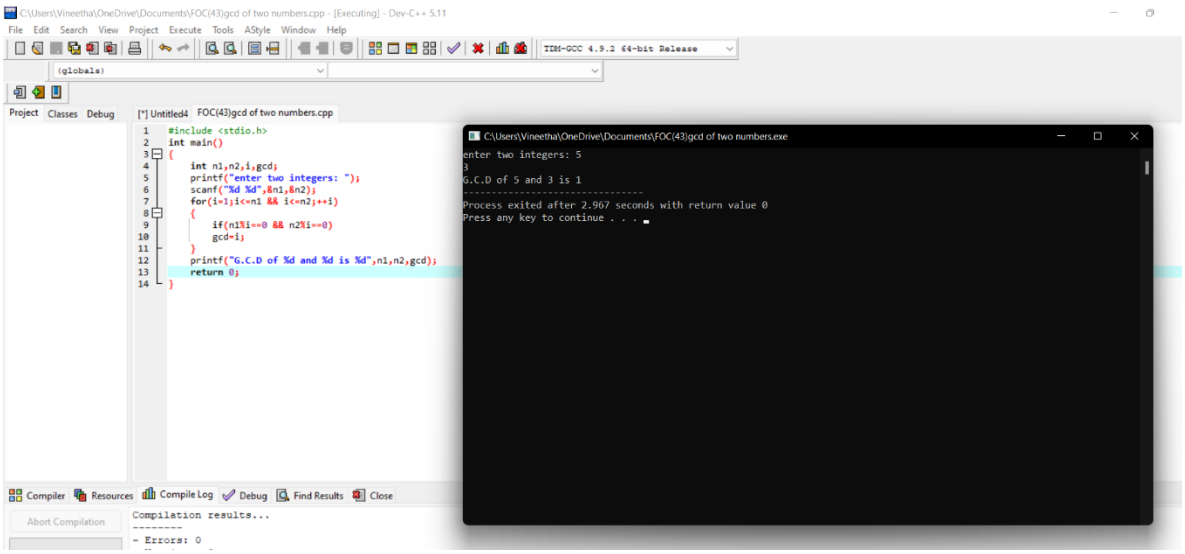


11. C program to find the gcd for the 2 given numbers

PROGRAM:

```
#include <stdio.h>
int main()
```

```
{
    int n1,n2,i,gcd;
    printf("enter two integers: ");
    scanf("%d %d",&n1,&n2);
    for(i=1;i<=n1 && i<=n2;++i)
    {
        if(n1%i==0 && n2%i==0)
        gcd=i;
    }
    printf("G.C.D of %d and %d is %d",n1,n2,gcd);
    return 0;
}
```



12. C program to add, subtract and multiply the 2 given numbers passed as command line arguments

PROGRAM:

```
#include <stdio.h>
```

```
int main()
{
    int a,b;
    printf("enter two values: ");
    scanf("%d%d",&a,&b);
    printf("sum=%d",a+b);
    printf("\nsub=%d",a-b);
    printf("\nmul=%d",a*b);
}
```