Assignment - 7 A Job Ready Bootcamp in C++, DSA and IOT

1. Write a program to find the Nth term of the Fibonnaci series.

#include<stdio.h>

int main()

{

int cur=1,pre=0,num=0,i,n;

printf("Enter a Number to see nth term of Fibonacci series:\n");

scanf("%d",&n);

for(i=1;i<=n-1;i++)

{

num=cur+pre;

pre=cur;

cur=num;

}

printf("%d \n",num);

printf(“\n”);

return 0;

}

2. Write a program to print first N terms of Fibonacci series

#include<stdio.h>

int main()

{

int cur=1,pre=0,num=0,i,n;

printf("Enter a Number to see Fibonacci series upto:\n");

scanf("%d",&n);

printf("1\n");

for(i=1;i<=n-1;i++)

{

num=cur+pre;

printf("%d \n",num);

pre=cur;

cur=num;

}

printf(“\n”);

return 0;

}

3. Write a program to check whether a given number is there in the Fibonacci

series or not.

#include<stdio.h>

int main()

{

int cur=1,pre=0,num=0,i,u;

printf("Enter a Number to check the number is in the Fibonacci series or not:\n");

scanf("%d",&u);

for(i=1;i>0;i++)

{

num=cur+pre;

pre=cur;

cur=num;

if(num==u)

{

printf("The number %d is present in Fibonacci series\n",u);

break;

}

else if(i>u)

{

printf("The number %d is not present in Fibonacci series \n ",u);

break;

}

else

{

printf("The number %d is not present in Fibonacci series \n ",u);

break;

}

printf("\n");

return 0;

}

}

4. Write a program to calculate HCF of two numbers

#include<stdio.h>

int main()

{

int a,b,i,min;

printf("Enter two number: \n");

scanf("%d %d",&a,&b);

if(a<=b)

min=a;

else

min=b;

for(i=min;i>1;i--)

{

if(a%i==0 && b%i==0)

{

printf("%d is the HCF of %d and %d \n ",i,a,b);

break;

}

}

printf("\n");

return 0;

}

5. Write a program to check whether two given numbers are co-prime

numbers or not

#include<stdio.h>

int main()

{

int a,b,i,min,flag=0;

printf("Enter two number: \n");

scanf("%d %d",&a,&b);

if(a<=b)

min=a;

else

min=b;

for(i=2;i<=min;i++)

{

if(a%i==0 && b%i==0 )

flag++;

}

if(flag>0)

printf("%d and %d are not co prime of each other \n ",a,b);

else

printf("%d and %d are co prime of each other \n",a,b);

printf("\n");

return 0;

}

6. Write a program to print all Prime numbers under 100

#include<stdio.h>

int main()

{

int i,j;

for(i=2;i<100;i++)

{

int f=1;

for(j=2;j<i;j++)

{

if(i%j==0)

f=0;

}

if(f)

printf("%d\n",i);

}

}

7. Write a program to print all Prime numbers between two given numbers

#include<stdio.h>

int main()

{

int i,j,n;

printf("Enter two number to see all prime numbers in between: \n");

scanf("%d %d",&i,&n);

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

{

int f=1;

for(j=2;j<i;j++)

{

if(i%j==0)

f=0;

}

if(i<=1)

printf("");

else if(f)

printf("%d\n",i);

}

}

8. Write a program to find next Prime number of a given number

#include<stdio.h>

int main()

{

int i,j;

printf("Enter a number see prime number that comes after: \n");

scanf("%d",&i);

for(i=i+1;i;i++)

{

int f=1;

for(j=2;j<i;j++)

{

if(i%j==0)

f=0;

}

if(i<=1)

printf("");

else if(f)

{

printf("%d\n",i);

break;

}

}

}

9. Write a program to check whether a given number is an Armstrong number or not

#include<stdio.h>

int main()

{

int a,ld,num,sum;

printf("Check wheather a number is Armstrong or not:\n");

scanf("%d",&a);

num=a;

while(a>0)

{

ld=a%10;

sum+=ld\*ld\*ld;

a/=10;

}

if(num==sum)

printf("%d is a Armstorng number \n ",num);

else

printf("%d is not a Armstrong number \n",num);

}

10. Write a program to print all Armstrong numbers under 1000

#include<stdio.h>

int main()

{

int a,ld,num,sum;

printf("Find the next Armstrong number:\n");

scanf("%d",&a);

for(;a<1000;a++)

{

num=a;

while(a>0)

{

ld=a%10;

sum+=ld\*ld\*ld;

a/=10;

}

if(num==sum)

printf("%d \n",num);

}

}