iNeuron

Course: A job Ready Bootcamp in C++, DSA and IOT

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

Program

```
#include<stdio.h>
int main()
{
   int n,a=-1,b=1,c,i;
   printf("Enter a number:");
   scanf("%d",&n);
   for(i=1;i<=n;i++)
   {
      c=a+b;
      a=b;
      b=c;
   }
   printf("Nth term is:%d",c);
   return 0;
}
```

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

Program

```
#include<stdio.h>
int main()
{
   int n,a=-1,b=1,c,i;
   printf("Enter a number:");
   scanf("%d",&n);
```

```
    for(i=1;i<=n;i++)
    {
        c=a+b;
        printf("%d ",c);
        a=b;
        b=c;
    }
    return 0;
}
```

3. Write a program to check whether a given number is there in the Fibonacci series or not.

Program

```
#include<stdio.h>
int main()
{
    int n,a=-1,b=1,c;
    printf("Enter a search number:");
    scanf("%d",&n);
    while(1)
    {
        c=a+b;
        if(c==n)
        {
            printf("Yes this nbr is in the Fibonacci series");
            break;
```

```
        }
        if(c>n)
        {
            printf("NO this nbr is not in the Fibonacci series");
            break;
        }
        a=b;
        b=c;
    }
    return 0;
}
```

4. Write a program to calculate HCF of two numbers.

Pgogram

```
#include<stdio.h>
int main()
{
    int a,b,c=1,i,n;
    printf("Enter a two number:");
    scanf("%d%d",&a,&b);
    n=a<b?a:b;
    for(i=2;i<=n;i++)
    {
        if(a%i==0&&b%i==0)
            c=i;
        break;
```

```
    }
    if(c==1)
        printf("Co-prime number" );
    else
        printf("Not co-prime number");
    return 0;
}
```

5. Write a program to check whether two given numbers are co-prime numbers or not.

Program

```
#include<stdio.h>
int main()
{
    int a,b,c=1,i,n;
    printf("Enter a two number:");
    scanf("%d%d",&a,&b);
    n=a<b?a:b;
    for(i=2;i<=n;i++)
    {
        if(a%i==0&&b%i==0)
            c=i;
        break;
    }
    if(c==1)
        printf("Co-prime number" );
    else
```

```
        printf("Not co-prime number");
    return 0;
}
```

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

Program

```
#include<stdio.h>
int main()
{
   int i,j;
   for(i=2;i<=100;i++)
   {
      for(j=2;j<i;j++)
      {
         if(i%j==0)
            break;
      }
      if(i==j)
         printf("%d ",i);
   }
   return 0;
}
```

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

Program

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

```
{
   int i,j,x,y;
   printf("Enter a two number:");
   scanf("%d%d",&x,&y);
   for(i=x;i<=y;i++)
   {
      for(j=2;j<i;j++)
      {
         if(i%j==0)
            break;
      }
      if(i==j)
         printf("%d ",i);
   }
   return 0;
}
```

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

Program

```
#include<stdio.h>
int main()
{
   int j,n;
   printf("Enter a number:");
   scanf("%d",&n);
   n+=1;
```

```
    for(j=2;j<n;j++)
    {
       if(n%j==0)
       {
          n++;
          j=1;
       }
    }
    printf("Next prime no is:%d",n);
    return 0;
}
```

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

Program

```
#include<stdio.h>
int main()
{
    int n,a,sum=0,real;
    printf("Enter a number:");
    scanf("%d",&n);
    real=n;
    while(n)
    {
       a=n%10;
       n=n/10;
```

```
        sum=sum+a*a*a;
    }
    if(sum==real)
        printf("Armstrong number");
    else
        printf("Not armstrong number");
    return 0;
}
```

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

Program

```
#include<stdio.h>
int main()
{
    int a,sum,i,n;
    for(i=1;i<=1000;i++)
    {
        n=i,sum=0;
        while(n)
        {
            a=n%10;
            n=n/10;
            sum=sum+a*a*a;
        }
        if(sum==i)
            printf("%d ",i);
```

```
    }
    return 0;
}
```