DAY 1- 28/03/2022

1.Sum of Digits in a number

```cpp
int N;
cin>>N;
int sum=0;
while(N>0)
 {
   sum=sum+(N%10);
   N=N/10;
 }
 std::cout<<sum;
```

2. Find Kth digit from Left

```cpp
#include<math.h>
using namespace std;
int countdigits(int x)
{
  int ctr=0;
  while(x>0)
   {
     ctr++;
     x=x/10;
   }
  return ctr;
}
int digit(int n,int k)
{
  return(n/(int)pow(10,countdigits(n)-k-1))%10;
}
int main() {
  cout<<digit(5789,3)<<endl; }
```

3.Step by step condition

```cpp
if(n%11==0)
    {
        cout<<"Eleven"<<endl;
    }
else
    {
        if(n%3==0)
        {
            cout<<"Three"<<endl;
        }
        else
        {
            if (n%2==0)
            {
            cout<<"Two"<<endl;
            }
            else
            {
```

```cpp
            cout<<"-1"<<endl;
        }
    }
}
}
```

4.Perfect Square

```cpp
bool isPerfectSquare(int x)
{
    if (x >= 0)
    {
        int sr = sqrt(x);
        return (sr * sr == x);
    }
return false;
}
int main()
{
    int x;
```

```cpp
        cin>>x;

        std::cout<< (isPerfectSquare(x))? "Yes":"No";


        return 0;

}
```

5.   (i) Decrement a to 0 using post decrement operator

```cpp
#include <iostream>
int main()
 {
  int a=5;
  while (a >= 0)
{
    std::cout << a-- << std::endl;
 }
}
```

5(ii) Decrement a to 0 using pre decrement operator

```cpp
#include <iostream>

int main()

{

  int a=5;

  while (a >= 0)

   {

    std::cout << --a << std::endl;

  }

}
```

(iii) Increments b to a if b<a else decrements b to a if b>a

```cpp
#include <iostream>

int main() {

  int a=5;

  int b=10;
```

```cpp
if(b<a)
{
    for(int i=b;i<=a;i++)
    {
        std::cout << i << std::endl;
    }
}
else
{
    for(int i=b;i>=a;i--)
    {
        std::cout<<i<<std::endl;
    }
}
}
```

(iv) Return the remainder of a divided by b

```cpp
#include <iostream>

int main() {
  int a=12;
  int b=5;
  int remainder;
  remainder=a%b;
  std::cout<<remainder<<std::endl;
  return remainder;
}
```