C++

ASSIGNMENT2 (240850320027)

```
#include <iostream>
using namespace std;

void primeOrNot(int a);

void primeNumbers(int a);

void alphaPyramid(int a);

void addition();

void substraction();

void multiplication();

void division();

void numPyramid(int a);

int main(){
```

```
int n;

cout<<"Enter a number"<<endl;
cin>>n;

primeOrNot(n);                    // Q1

 cout<<endl;

primeNumbers(n);                  //Q2

 cout<<endl;

alphaPyramid(n);                  //Q3

  cout<<endl;

numPyramid(n);                    //Q5

cout<<endl;

int choice;

do{                               //Q4

cout<<" Select menu->  "<<endl;
cout<<" 1.Addtion 2.Substraction 3.Multiplication 4.Division 5.Exit"<<endl;
```

```
cout<<" Enter your choice: "<<endl;

cin>>choice;

switch (choice)
{
case 1: addition();
    break;

case 2: substraction();
    break;

case 3: multiplication();
    break;

case 4: division();
    break;

case 5: cout<<" Good Bye!!! "<<endl;
   break;


default: cout<<" Invalid choice...Please choose a valid option"<<endl;
    break;
}

}while (choice!=5);
```

```
   return 0;
}

void primeOrNot(int n){

int i,count=0;

for(i=1;i<=n;i++){
   if(n%i==0)
   count++;
}

if(count==2)
cout<< n << " is a prime number"<<endl;

else
cout<< n << " is not a prime number"<<endl;

}

void primeNumbers(int n){

int i, x=2;

  cout<<"prime numbers upto "<<n<<endl;

   while(n){
```

```
        for( i=2;i<x;i++)
        if(x%i==0)
        break;

        if(i==x){

        cout<< x << " ";
        n--;
        }

        x++;
    }
}

 void alphaPyramid(int n){

char c='A';
    for(int i=1;i<=n;i++){

        c='A';

        for(int j=1;j<=i;j++){
           // cout<< j << " ";
            cout<< c << " ";
            c++;
        }

         cout<<endl;
    }
```

```
 }

void addition(){

int n1,n2;

   cout<<" Enter a first number"<<endl;
   cin>>n1;

   cout<<" Enter a second number"<<endl;
   cin>>n2;

   int res = n1+n2;

   cout<<"Addtion of "<<n1<<" and "<<n2<<" is "<<res<<endl;

}

void substraction(){

int n1,n2;

   cout<<" Enter a first number"<<endl;
   cin>>n1;

   cout<<" Enter a second number"<<endl;
   cin>>n2;
```

```
    int res = n1-n2;

    cout<<"Substraction of "<<n1<<" and "<<n2<<" is "<<res<<endl;

}

void multiplication(){

int n1,n2;

    cout<<" Enter a first number"<<endl;
    cin>>n1;

    cout<<" Enter a second number"<<endl;
    cin>>n2;

    int res = n1*n2;

    cout<<"Multiplication of "<<n1<<" and "<<n2<<" is "<<res<<endl;

}

void division(){

int n1,n2;

    cout<<" Enter a first number"<<endl;
    cin>>n1;
```

```
    cout<<" Enter a second number"<<endl;
    cin>>n2;

    int res = n1/n2;

    cout<<"Division of "<<n1<<" and "<<n2<<" is "<<res<<endl;

}

void numPyramid(int n){

    for(int i=1;i<=n;i++){

      for(int j=1;j<=i;j++){
           cout<< j << " ";

       }

        cout<<endl;
    }


}
```