# NUST

# Fundamentals of programming

ASSIGNMENT NUMBER #03

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ME- 15- B

```cpp
#include <iostream>

using namespace std;

/* run this program using the console pauser or add your own getch, system("pause") or input loop */
```

**TASK 1**

```cpp
int main() {

        int population = 0;

        char province;

        cout<<"p for punjab , s for sindh ,k for kpk , b for balochistan: ";

        cin>>province;

        switch (province)
{
                case 'p':
                case 'P':

                population = 10986468;

                cout <<"population of punjab is 10986468";

                break;

                case 's':

                case 'S':

                        population =123456;

                        break;

                        case 'k':

                        case 'K':

                        population = 156789;

                        break;

                        case 'b':

                        case 'B':

                        population = 45678;

                        break;

                        default:
```
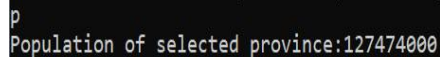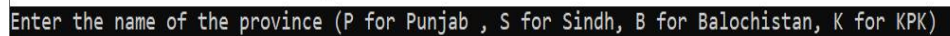
C:\Users\MULTI\Downloads\Lab Assignment 3.exe

```
Enter the name of the province (P for Punjab , S for Sindh, B for Balochistan, K for KPK)
p
Population of selected province:127474000

-------------------------------
```

```cpp
                cout <<"invalid province";
        }
        return 0
cout<<"The population of the province is: "<<province<<endl;
}
```

//TASK 2

```cpp
        char Alp;
        cout<<"Please enter a letter: "<<endl;
        cin>>Alp;
        Alp= tolower(Alp);
        switch (Alp) {
                case 'a':
                case 'e':
                case 'i':
                case 'o':
                case 'u':
        cout<<"Alphabet is a vowel"<<endl;


        break;


        default:
                cout<<"Alphabet is a consonant."<<endl;
        break;
```
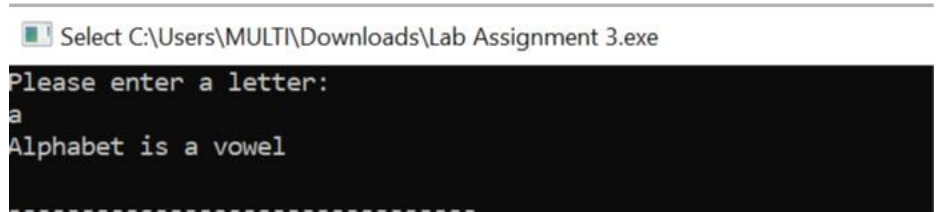


Select C:\Users\MULTI\Downloads\Lab Assignment 3.exe

```
Please enter a letter:
a
Alphabet is a vowel

--------------------------------
```

```cpp
        }


//TASK 3

int cal;

int m;

cout<<"Enter a number: "<<endl; cin>>cal;


if (cal <0) {

        m = -1;

} else if ( cal> 0) {

        m = 1;

} else if (cal = 0) {

   m = 0;

}

switch (m)

{

        case -1:

        cout<<"Number is negative."<<endl;

        break;

        case 1:

        cout<<"Number is positive."<<endl;

        break;

        case 0:

        cout<<"Number is 0."<<endl;

        break;


}
```

```cpp
//TASK 4

int Age;

cout<<"Enter your age: "<<endl;

cin>>Age;

if (Age>=18) {

cout<<"Person is an adult."<<endl;

} else {

if (Age<18 && Age>=13) {

        cout<<"Person is a teen."<<endl;

} else {

        cout<<"Person is a child."<<endl;

}

}

//TASK 5


int n1,n2,n3;


cout<<"Please enter three numbers"<<endl;

cin>>n1>>n2>>n3;


if (n1>=n2) {

        if (n1>=n3) {

                cout<<n1<<" is the greatest number."<<endl;

}   else {

        cout<<n3<<" is the greatest number."<<endl;

}

}   else {

        if (n2>=n3) {
```

**Select C:\Users\MULTI\Downloads\Lab Assignment 3.exe**

```
Enter your age:
14
Person is a teen.

---------------------------------
```

**C:\Users\MULTI\Downloads\Lab Assignment 3.exe**

```
Enter three numbers
10
23
15
23 is the greatest number.

---------------------------------
```

```
                cout<<n2<<" is the greatest number."<<endl;

}   else {

        cout<<n3<<" is the greatest number."<<endl;

}

}


}
```
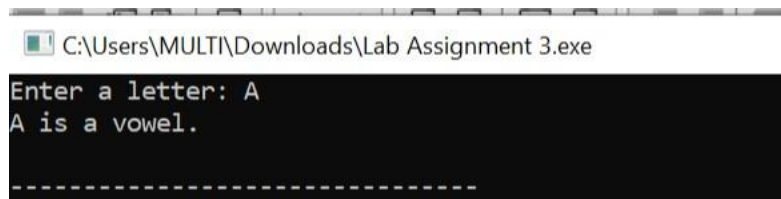
//TASK 6

```
char Alphabet;
```

```
cout << "Enter a letter: ";

cin >> Alphabet;


  if ((Alphabet >= 'a' && Alphabet <= 'z') || (Alphabet >= 'A' && Alphabet<= 'Z')) {

    if (Alphabet== 'a' || Alphabet == 'e' || Alphabet== 'i' || Alphabet== 'o' || Alphabet== 'u' ||

      Alphabet == 'A' || Alphabet == 'E' || Alphabet== 'I' || Alphabet == 'O' || Alphabet == 'U') {

      cout << Alphabet << " is a vowel." << endl;

    } else {

      cout << Alphabet << " is a consonant." << endl;

    }

  } else {

    cout << "Invalid input. Please enter a valid letter." << endl;

  }

  return 0;
```

}