FUNDAMENTAL OF PROGRAMMING
HOME TASK #3
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TASK 1

```cpp
#include<iostream>
using namespace std;
int main () {
    int Punjab=27743338,sindh=54858515,kpk=39372462,balochistan=20094659;
    char letter;

    cout<<"Please write the First letter of the province to know the population"<<endl;
    cin>>letter;

    switch(letter){
        case 'p' :
            cout<<"the population is of punjab is "<< Punjab<<endl;
            break;
        case 's' :
            cout<<"the population is of sindh is "<< sindh<<endl;
            break;
                case 'b' :
            cout<<"the population is of balochistan is "<< balochistan<<endl;
            break;
        case 'k' :
            cout<<"the population is of kpk is "<< kpk<<endl;
            break;
            default :
            cout<<"Please enter a valid letter "<<endl;
            break;
    }
    return 0;
}
```

```
C:\Users\Fcc\Desktop\Untitled2.exe

Please write the First letter of the province to know the population
p
the population is of punjab is 27743338

--------------------------------
Process exited after 3.721 seconds with return value 0
```

```
C:\Users\Fcc\Desktop\Untitled2.exe

Please write the First letter of the province to know the population
k
the population is of kpk is 39372462

--------------------------------
Process exited after 1.72 seconds with return value 0
Press any key to continue . . . _
```

TASK2

```cpp
#include<iostream>
using namespace std;
int main () {
    char alphabet;
    cout<<"Please enter an alphabet"<<endl;
    cin>>alphabet;

    switch(alphabet){ // creating a switch case for different vowels
        case 'a':
        case 'e':
        case 'i':
        case 'o':
        case 'u':
        cout<<"The alphabet is an vowel"<<endl;
        break;
        default: // default scenario will print everyother letter except the one above as consonant
        cout<<"the alphabet is an consonant"<<endl;
        break;

    }

}
```

C:\Users\Fcc\Desktop\Untitled2.exe

```
Please enter an alphabet
i
The alphabet is an vowel


--------------------------------
Process exited after 3.567 seconds with return value 0
Press any key to continue . . .
```

C:\Users\Fcc\Desktop\Untitled2.exe

```
Please enter an alphabet
c
the alphabet is an consonant

--------------------------------
Process exited after 0.9183 seconds with return value 0
Press any key to continue . . .
```

TASK 3

Untitled2.cpp

```cpp
1    #include<iostream>
2    using namespace std;
3    int main () {
4        int a;
5        cout<<"Enter an integer"<<endl;
6        cin>>a;
7
8        switch(a){
9         case 0:
10            cout<<"the given integer is zero"<<endl;
11            break;
12
13         default:
14            if (a<0){
15                cout<<"the number is negative"<<endl;
16            }
17            else{
18                cout<<"the number is positive"<<endl;
19            }
20
21        }
22    return 0;
23    }
```

C:\Users\Fcc\Desktop\Project1.exe

```
Enter an integer
1
the number is positive

--------------------------------
Process exited after 1.899 seconds with return value 0
Press any key to continue . . .
```

```
Enter an integer
0
the given integer is zero

--------------------------------
Process exited after 0.9799 seconds with return value 0
Press any key to continue . . .
```

```
Enter an integer
-1
the number is negative

--------------------------------
Process exited after 4.212 seconds with return value 0
Press any key to continue . . .
```

TASK4

```cpp
#include<iostream>
using namespace std;
int main () {
  int age;
  cout<<"enter your age "<<endl;
  cin>>age;
if(age<20) {
    if (age>13){
        cout<<"you are an teenager"<<endl;
    }
    else{
        cout<<"you are a child"<<endl;

    }
}
    else {
    cout<<"You are an adult"<<endl;
    }


    return 0;
}
```

```
C:\Users\Fcc\Desktop\Project1.exe

enter your age
20
You are an adult

--------------------------------
Process exited after 2.356 seconds with return value 0
Press any key to continue . . . _
```



```
C:\Users\Fcc\Desktop\Project1.exe

enter your age
15
you are an teenager

--------------------------------
Process exited after 1.413 seconds with return value 0
Press any key to continue . . .
```

Task 5

```cpp
#include<iostream>
using namespace std;
int main () {
int a,b,c;
cout<<"Please enter any three numbers"<<endl;
cin>>a>>b>>c;
if (a>b){
    if(a>c){
        cout<< a << " is the greatest of the three numbers"<<endl;
    }
    else {
        cout<< c << " is the greatest of the three numbers"<<endl;
    }
}

else {
    if (b>c){
        cout<<b<<" is the greatest of the three numbers"<<endl;}
        else{
            cout<< c << " is the greatest of the three numbers"<<endl;
        }
    }
}
```

C:\Users\Fcc\Desktop\Project1.exe

```
Please enter any three numbers
22
3
18
22 is the greatest of the three numbers

------------------------------
Process exited after 4.371 seconds with return value 0
Press any key to continue . . .
```

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TASK 6

```cpp
#include<iostream>
using namespace std;
int main () {
char letter;
 cout<<"please write an alphabet"<<endl;
cin>>letter;
if (letter>='a' && letter<='z') {
    if (letter=='a' || letter=='e' || letter=='i' || letter=='o' || letter=='u') {
        cout<<"the letter is a vowel"<<endl;}
        else {
            cout<<"the letter is a consonant"<<endl;
        }
    }
}
```

C:\Users\Fcc\Desktop\Project1.exe

```
please write an alphabet
e
the letter is a vowel

--------------------------------
Process exited after 3.033 seconds with return value 0
Press any key to continue . . .
```

C:\Users\Fcc\Desktop\Project1.exe

```
please write an alphabet
s
the letter is a consonant

--------------------------------
Process exited after 2.135 seconds with return value 0
Press any key to continue . . .
```