Fop Lab Home Task 3

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Section: B

TASK 1

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

int main() {

    char word;
    cout<<"Enter 'P' for Punjab, 'S' for Sindh, 'K' for KPK, 'B' for Balochistan: ";
    cin>>word;

    switch(word) {
    case 'P':
        cout<<"Population is 127,474,000";
        break;
    case 'S':
        cout<<"Population is 47,890,000";
        break;
    case 'K':
        cout<<"Population is 35,530,000";
        break;
    case 'B':
        cout<<"Population is 12,340,000";
        break;
    }


    return 0;
}
```

Output

```
Enter 'P' for Punjab, 'S' for Sindh, 'K' for KPK, 'B' for Balochistan: P
Population is 127,474,000
Process returned 0 (0x0)   execution time : 3.517 s
Press any key to continue.
```

Explanation

This code takes a character from the user according to the specific province and then outputs the population of that province.

TASK 2

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

int main() {

    char word;
    cout<<"Enter a character: ";
    cin>>word;

    switch(word) {
    case 'a':
        cout<<"Character is vowel";
        break;
    case 'e':
        cout<<"Character is vowel";
        break;
    case 'i':
        cout<<"Character is vowel";
        break;
    case 'o':
        cout<<"Character is vowel";
        break;
    case 'u':
        cout<<"Character is vowel";
        break;
    default:
        cout<<"Character is consonant";
    }


    return 0;
}
```

Output

```
Enter a character: i
Character is vowel
Process returned 0 (0x0)   execution time : 8.232 s
Press any key to continue.
```

Explanation

This code takes a character as input from the user and by using switch case statement, it determines whether the given character is a Vowel or a Consonant.

TASK 3

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

int main() {

    int num;
    cout<<"Enter a number: ";
    cin>>num;

    switch(num) {
    case 0:
        cout<<"Given number is zero";
        break;
    default:
        if (num>0) {
            cout<<"Given number is positive";
        } else {
            cout<<"Given number is negative";
        }

    }


    return 0;
}
```

Output

```
Enter a number: -234
Given number is negative
Process returned 0 (0x0)   execution time : 1.243 s
Press any key to continue.
```

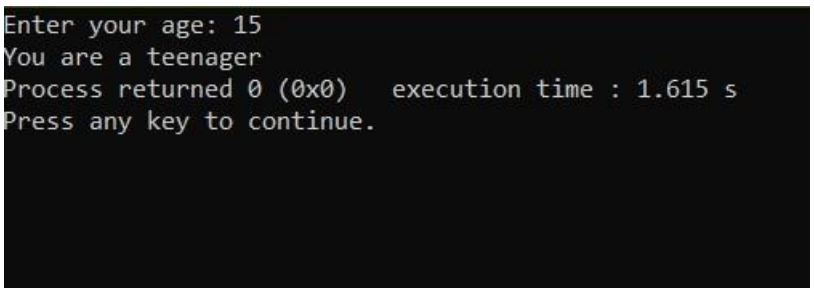
Explanation

This code takes a number from the user and by using switch case and IF statement, it determines whether the number is positive, negative or zero.

TASK 4

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

int main() {

    int age;
    cout<<"Enter your age: ";
    cin>>age;

    if (age < 20) {
        if (age > 12) {
            cout<<"You are a teenager";
        }
        else {
            cout<<"you are a child";
        }
    }
    else {
        cout<<"You are an adult";
    }


    return 0;
}
```

Output



Explanation

This code asks the user for his/her age and then by using nested if-else statements, it determines whether the user is a child, teenager or an adult.

TASK 5

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

int main() {

    int num1, num2, num3;
    cout<<"Enter number 1: ";
    cin>>num1;
    cout<<"Enter number 2: ";
    cin>>num2;
    cout<<"Enter number 3: ";
    cin>>num3;

    if (num1 > num2) {
        if (num1 > num3) {
            cout<<num1<<" is greater";
        }
        else {
            cout<<num3<<" is greater";
        }
    }
    else {
        if (num2 > num3) {
            cout<<num2<<" is greater";
        }
        else {
            cout<<num3<<" is greater";
        }
    }


    return 0;
}
```

Output

```
Enter number 1: 343
Enter number 2: 543
Enter number 3: 23
543 is greater
Process returned 0 (0x0)   execution time : 4.138 s
Press any key to continue.
```

Explanation

This code takes three integers as input and by using nested if-else statements, it determines the highest number between those 3 numbers.

TASK 6

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

int main() {

    char word;
    cout<<"Enter a character: ";
    cin>>word;

    if (word != 'z') {
        if (word=='a'||word=='e'||word=='i'||word=='o'||word=='u') {
            cout<<"Given character is Vowel";
        }
        else {
            cout<<"Given character is consonant";
        }
    }
    else {
        cout<<"Given character is consonant";
    }


    return 0;
}
```

Output

```
Enter a character: a
Given character is Vowel
Process returned 0 (0x0)   execution time : 2.296 s
Press any key to continue.
```

Explanation

By using nested if-else statements, this code determines whether a given character is a Vowel or a Consonant. It takes the character as an input from the user.