

Lab Manual 3

Submitted by: Ali Rehman Qureshi

Class: ME-15(C)

ID: 459203

Home Task

Task 1:

Write a C++ program to print the total number of populations in Punjab, Sindh, KPK, and Balochistan using a switch case.

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

int main()
{
    char province;
    cout << "Enter p for Punjab, s for Sindh, k for KPK, and b for Balochistan\n";
    cin >> province;
    switch(province)
    {
        case 'p':
            cout << "The population of this province is 110 million";
            break;
        case 's':
            cout << "The population of this province is 48 million";
            break;
        case 'k':
            cout << "The population of this province is 36 million";
            break;
        case 'b':
            cout << "The population of this province is 13 million";
            break;
        default:
            break;
    }
}
```

```
Enter p for Punjab, s for Sindh, k for KPK, and b for Balochistan
s
The population of this province is 48 million
```

Task 2:

2. Write a C++ program to check whether an alphabet is a vowel or consonant using a switch case.

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

int main()
{
    char alphabet;
    cin >> alphabet;
    switch(alphabet)
    {
        case 'a':
            cout << "This is a vowel";
            break;
        case 'e':
            cout << "This is a vowel";
            break;
        case 'i':
            cout << "This is a vowel";
            break;
        case 'o':
            cout << "This is a vowel";
            break;
        case 'u':
            cout << "This is a vowel";
            break;
        default:
            cout << "This is a consonant";
            break;
    }
}
```

Microsoft Visual Studio Debug Console

```
r
This is a consonant
C:\Users\HP\source\repos\NUTSLAB2\NUTSLAB2\Debug\NUTSLAB2.exe (process)
```

Task 3: 3. Write a C++ program to check whether a number is positive, negative, or zero using a switch case.

```
// NUISLAB2.cpp : This file contains the 'main' function. Program execution  
//  
  
#include <iostream>  
using namespace std;  
  
int main()  
{  
    int num;  
    cin >> num;  
    switch(num<0)  
    {  
        case true:  
            cout << "The number is negative";  
            break;  
        default:  
            switch (num>0)  
            {  
                case true:  
                    cout << "The number is positive";break;  
                default:  
                    cout << "The number is zero";  
                    break;  
            }  
    }  
}
```

Microsoft Visual Studio Debug Console

45
The number is positive

Task 4: 4. Write a C++ to find out whether a person is an adult, teenager, or child using nested if-else.

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

int main()
{
    int age;
    cin >> age;
    if (age < 18) {
        if (age < 13) {
            cout << "You are a child";
        }
        else
            cout << "You are a teenager";
    }
    else {
        cout << "You are an adult";
    }
}
```

Output

/tmp/0Cf0A1TF1Y.o

45

You are an adult|

Task 5: 5. Write a C++ program that takes three number from the user and find the greatest number out of the three numbers using nested if-else statements.

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

int main()
{
    int num1;
    int num2;
    int num3;
    cin >> num1;
    if (num1 > num2 && num1 > num3)
    {
        cout << "The biggest number is " << num1;
    }
    else {
        if(num2>num3 && num2>num1){
            cout << "The biggest number is " << num2;
        }
        else {
            cout << "The biggest number is " << num3;
        }
    }

    return 0;
}
```

Output

/tmp/0Cf0A1TF1Y.o

45

17

98

The biggest number is 98|

Task 6: 6. Write a C++ program to check whether the alphabet entered by the user is Vowel or consonant using nested if-else.

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

int main()
{
    char character;
    cin >> character;
    if (character=='a' || character=='e' || character == 'i' || character == 'o' || character == 'u')
    {
        cout << "This is a vowel";
    }
    else {
        cout << "This is a consonant";
    }
    return 0;
}
```

Output

/tmp/0Cf0A1TF1Y.o

u

This is a vowel|