

FUNDAMENTALS OF PROGRAMMING(LAB)

By

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Subject: FUNDAMENTALS OF PROGRAMMING

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HOME TASK- LAB MANUAL 3

Q1. PROGRAM FOR POPULATION.

```
#include <iostream>

using namespace std;

int main()
{
    char op;

    cout << "Enter FIRST ALPHABET OF ANY PROVINCE : " << endl;

    cin >> op ;

    switch (op)
    {
        case 'k':

            cout<<"The total population of KPK is 39,372,462";

            break;

        case 'p':

            cout<<"The total population of PUNJAB is 116,827,125";

            break;

        case 's':

            cout<<"The total population of SINDH is 54,858,515";

            break;

        case 'b':

            cout<<"The total population of BALOCHISTAN is 20,094,659";

            break;

    }

    return 0;
```

```
Enter FIRST ALPHABET OF ANY PROVINCE :
s
The total population of SINDH is 54,858,515
Process returned 0 (0x0)   execution time : 4.255 s
Press any key to continue.
```

```
}
```

Q2. VOWEL OR CONSONANT.

```
#include <iostream>

using namespace std;

int main()
{
    char n;

    cout << "Enter any alphabet : " << endl;

    cin >> n;

    switch (n)
    {
        case 'a':
            cout << "ITS A VOWEL";

            break;

        case 'e':
            cout << "ITS A VOWEL";

            break;

        case 'i':
            cout << "ITS A VOWEL";

            break;

        case 'o':
            cout << "ITS A VOWEL";

            break;

        case 'u':
            cout << "ITS A VOWEL";

            break;

        default:
            cout << "IT'S A CONSONANT";

    } return 0; }
```

```
Enter any alphabet :
e
ITS A VOWEL
Process returned 0 (0x0)   execution time : 2.672 s
Press any key to continue.
```

```
Enter any alphabet :  
d  
ITS A CONSONANT  
Process returned 0 (0x0)   execution time : 2.700 s  
Press any key to continue.
```

Q3. POSITIVE, NEGATIVE, ZERO FROM SWITCH.

```
#include <iostream>  
  
using namespace std;  
  
int main()  
{  
    int n;  
  
    cout << "ENTER YOUR NUMBER : " << endl;  
  
    cin >> n;  
  
    switch (n>0)  
    {  
        case 1:  
            cout<<"THE NUMBER IS POSITIVE";  
            break;}  
  
    switch (n==0)  
    {  
        case 1:  
            cout<<"THE NUMBER IS ZERO";  
            break;}  
  
    switch (n<0)  
    {  
        case 1:  
            cout<<"THE NUMBER IS NEGATIVE";  
            break;  
  
    }  
}
```

```
return 0;

}
```

```
ENTER YOUR NUMBER :
0
THE NUMBER IS ZERO
Process returned 0 (0x0)   execution time : 1.198 s
Press any key to continue.
```

```
"C:\Users\Rizwan computers\OneDrive\Desktop\C++\vwl and consi
ENTER YOUR NUMBER :
12
THE NUMBER IS POSITIVE
Process returned 0 (0x0)   execution time : 1.458 s
Press any key to continue.
```

```
"C:\Users\Rizwan computers\OneDrive\Desktop\C++\vwl and consi
ENTER YOUR NUMBER :
-31
THE NUMBER IS NEGATIVE
Process returned 0 (0x0)   execution time : 3.989 s
Press any key to continue.
```

Q4. WHETHER A PERSON IS ADULT, TEENAGER, CHLID.

```
#include <iostream>

using namespace std;

int main()
{
    int n;

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

    cin >> n;

    if (n <= 19)

    {
        if(n>=12)
        {
            cout<<"YOU ARE A TEENAGER";

        }

        else {
```

```

        cout<<"YOU ARE A CHILD";
    }

}

else {

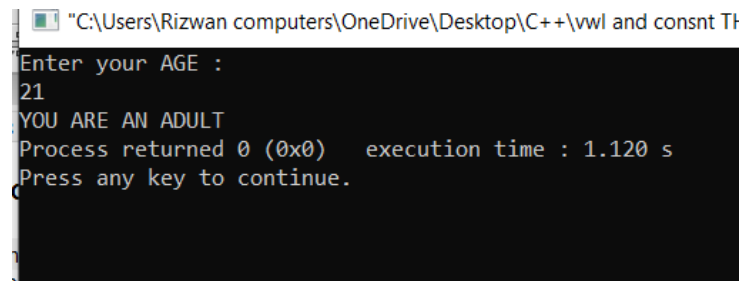
    cout<<"YOU ARE AN ADULT";

}

return 0;

}

```

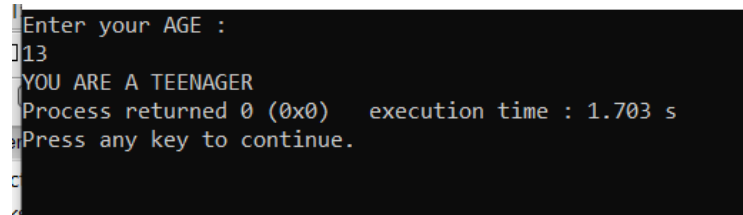


A screenshot of a Windows command prompt window titled "C:\Users\Rizwan computers\OneDrive\Desktop\C++\vwl and consnt T". The prompt shows the program asking for age, receiving '21', and outputting 'YOU ARE AN ADULT'. It also displays 'Process returned 0 (0x0) execution time : 1.120 s' and 'Press any key to continue.'.

```

Enter your AGE :
21
YOU ARE AN ADULT
Process returned 0 (0x0)   execution time : 1.120 s
Press any key to continue.

```

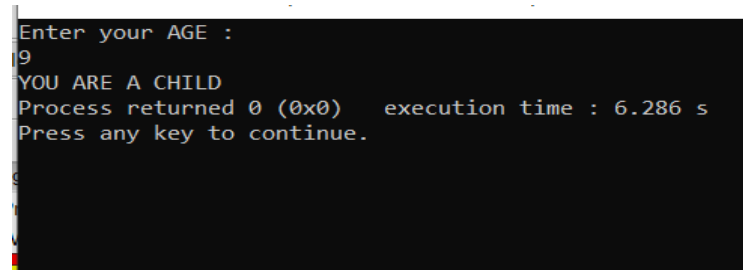


A screenshot of a Windows command prompt window showing the program asking for age, receiving '13', and outputting 'YOU ARE A TEENAGER'. It also displays 'Process returned 0 (0x0) execution time : 1.703 s' and 'Press any key to continue.'.

```

Enter your AGE :
13
YOU ARE A TEENAGER
Process returned 0 (0x0)   execution time : 1.703 s
Press any key to continue.

```



A screenshot of a Windows command prompt window showing the program asking for age, receiving '9', and outputting 'YOU ARE A CHILD'. It also displays 'Process returned 0 (0x0) execution time : 6.286 s' and 'Press any key to continue.'.

```

Enter your AGE :
9
YOU ARE A CHILD
Process returned 0 (0x0)   execution time : 6.286 s
Press any key to continue.

```

Q5. LARGEST NUMBER IN THREE, USING NESTED IF-ESLE.

```

#include <iostream>

using namespace std;

int main()
{
    int a, b, c;

    cout<<"ENTER NUMBERS\n";

    cin >> a >> b >> c;

    if (a>b && a>b){

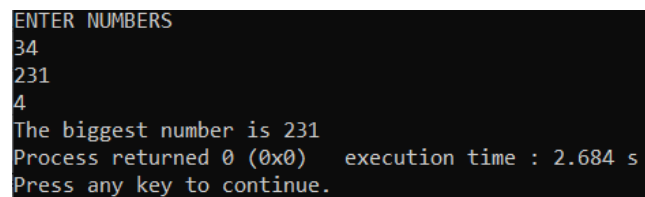
        cout << "The biggest number is " << a;
    }
}

```

```

}
else {
if(b>c && b>a)
{
cout << "The biggest number is " << b;
}
else {
cout << "The biggest number is " << c;
}
}
return 0;
}

```



```

ENTER NUMBERS
34
231
4
The biggest number is 231
Process returned 0 (0x0) execution time : 2.684 s
Press any key to continue.

```

Q6. VOWELS AND CONSONANT USING NESTED IF-ELSE.

```

#include <iostream>

using namespace std;

int main() {

    char letter;

    cout << "Enter a letter: ";

    cin >> letter;

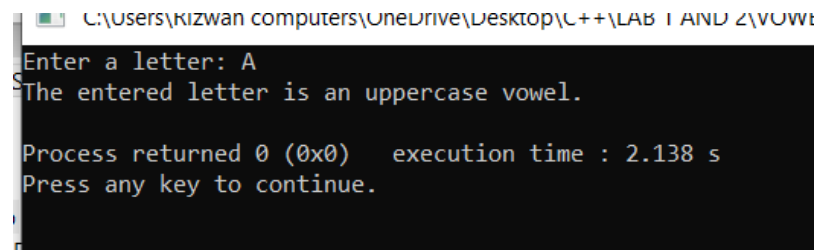
    if (letter == 'a' || letter == 'e' || letter == 'i' || letter == 'o' || letter == 'u')
    {
        cout << "The entered letter is a lowercase vowel." << endl;
    }

    else if (letter == 'A' || letter == 'E' || letter == 'I' || letter == 'O' || letter == 'U') {
        cout << "The entered letter is an uppercase vowel." << endl;
    }

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

```

```
        cout << "The entered letter is a consonant." << endl;
    }
    else
        cout << "The entered character is not a letter." << endl;
    return 0;
}
```

A screenshot of a Windows command prompt window. The title bar shows the file path: C:\Users\Rizwan computers\OneDrive\Desktop\C++\LAB 1 AND 2\VOWEL. The prompt shows the user entering 'A' in response to 'Enter a letter:'. The program outputs 'The entered letter is an uppercase vowel.' followed by 'Process returned 0 (0x0) execution time : 2.138 s' and 'Press any key to continue.'

```
C:\Users\Rizwan computers\OneDrive\Desktop\C++\LAB 1 AND 2\VOWEL>
Enter a letter: A
The entered letter is an uppercase vowel.
Process returned 0 (0x0)   execution time : 2.138 s
Press any key to continue.
```