

**RAI AZMAT TARIQ**

**LMS ID 465039**

**LAB TASKS 3**

# Q1.

```
#include <iostream>
using namespace std;
int main ()
{
    char x;
    cout<<"Enter the province name:- "<<endl;
    cout<<"1.Enter 'P' for PUNJAB"<<endl;
    cout<<"2.Enter 'K' for KPK"<<endl;
    cout<<"3.Enter 'S' SINDH"<<endl;
    cout<<"4.Enter 'B' BALOUCHISTAN"<<endl;
    cin>>x;

    switch(x){
        case 'P':
            cout<<"Population of punjab is 110 million"<<endl;
            break;
        case 'K':
            cout<<"Population of kpk is 40.8 million"<<endl;
            break;
        case 'S':
            cout<<"Population of sindh is 54 million"<<endl;
            break;
        case 'B':
            cout<<"Population of balouchistan is 20.7 million"<<endl;
            break;
        default:
            cout<<"Enter a correct letter"<<endl;
    }
    return 0;
}
```

```
Enter the province name:-
1.Enter 'P' for PUNJAB
2.Enter 'K' for KPK
3.Enter 'S' SINDH
4.Enter 'B' BALOUCHISTAN
P
Population of punjab is 110 million
-----
Process exited after 2.256 seconds with return value 0
Press any key to continue . . .
```

## Q2.

```
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      char alp;
6      cout<<"Enter a alphabet"<<endl;
7      cin>>alp;
8
9      switch(alp)
10     {
11         case 'a':
12             cout<<"Vowel"<<endl;
13             break;
14         case 'e':
15             cout<<"Vowel"<<endl;
16             break;
17         case 'i':
18             cout<<"Vowel"<<endl;
19             break;
20         case 'o':
21             cout<<"Vowel"<<endl;
22             break;
23         case 'u':
24             cout<<"Vowel"<<endl;
25             break;
26         default:
27             cout<<"NOT a vowel!"<<endl;
28             break;
29     }
30
31     return 0;
32 }
```

Enter a alphabet

a

Vowel

-----

Process exited after 9.015 seconds with return value 0

Press any key to continue . . .

# Q3.

The image shows a C++ program named `azmat.cpp` and its execution output. The program uses nested `switch` statements to check if a number is positive, negative, or zero. The execution window shows the user inputting `-4`, which results in the output "The entered is negative".

```
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      int num1;
6      cout<<"Enter a number:";
7      cin>>num1;
8      switch(num1>0)
9      {
10         case 1:
11             cout<<"Number entered is positive";
12             break;
13         case 0:
14             switch(num1<0)
15             {
16                 case 1:
17                     cout<<"The entered is negative";
18                     break;
19                 case 0:
20                     cout<<"Number entered is equal to zero";
21                     break;
22             }
23     }
24 }
```

Output:

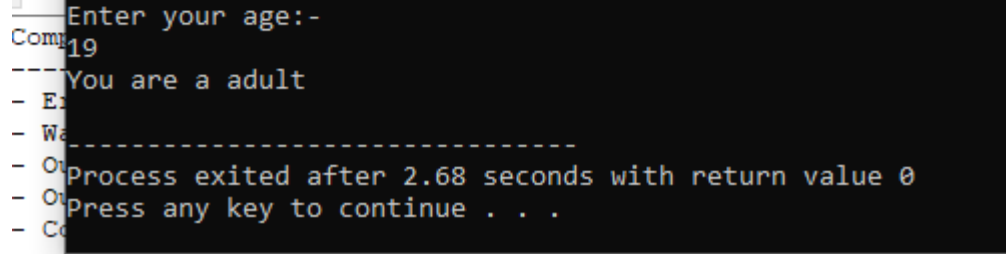
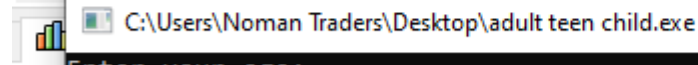
```
Enter a number:-4
The entered is negative
-----
Process exited after 2.218 seconds with return value 0
Press any key to continue . . .
```

Additional information at the bottom of the window:

- Output Size: 1.83242321014404 KIB
- Compilation Time: 1.33s

## Q4.

```
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      int age;
6      cout<<"Enter your age:-"<<endl;
7      cin>>age;
8
9      if(age>=1 && age<=12)
10     {
11         cout<<"You are a child"<<endl;
12     }
13     else if(age>=13 && age<=17)
14     {
15         cout<<"You are a teenager"<<endl;
16     }
17     else
18     {
19         cout<<"You are a adult"<<endl;
20     }
21     return 0;
22 }
23
24
25
```



```
Enter your age:-
19
You are a adult
-----
Process exited after 2.68 seconds with return value 0
Press any key to continue . . .
```

## Q5.

```

1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      int x,y,z;
6      cout<<"Enter the three numbers"<<endl;
7      cin>>x>>y>>z;
8
9      if(x>y && x>z)
10     {
11         cout<<"x is the greatest number"<<endl;
12     }
13     else if(y>z && y>x)
14     {
15         cout<<"y is the greatest number"<<endl;
16     }
17     else if(z>x && z>y)
18     {
19         cout<<"z is the greatest number"<<endl;
20     }
21     else{
22         cout<<"Numbers are equal"<<endl;
23     }
24     return 0;
25 }
26

```

C:\Users\Noman Traders\Desktop\three numbers.exe

Enter the three numbers

2 3 4

z is the greatest number

-----

Process exited after 2.51 seconds with return value 0

Press any key to continue . . .

## Q6.

```
#include<iostream>
using namespace std;
int main()
{
    char a;
    cout<<"Enter a Alphabet: ";
    cin>>a;

    if(a=='a' || a=='e' || a=='i' || a=='o' || a=='u')
    {
        cout<<"A vowel"<<endl;
    }
    else if(a=='A' || a=='E' || a=='I' || a=='O' || a=='U')
    {
        cout<<"A vowel"<<endl;
    }
    else
    {
        cout<<"Consonant"<<endl;
    }

    return 0;
}
```

C:\Users\Noman Traders\Desktop\vowel.exe

Enter a Alphabet: A

A vowel

| Con

oila

-----  
----Process exited after 2.117 seconds with return value 0

rorPress any key to continue . . .

arni

atpu

Input Size: 1 83260917663574 MiB