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Lab Task # 5

Task#1: Output of the sample code

```
#include<iostream>

using namespace std;

void main()
{
    int a;

    cout << "please enter any value from 1-3 " << endl;

    cin >> a;

    switch (a)
    {
        case 1:
            cout << "you have entered 1" << endl;
            break;

        case 2:
            cout << "you have entered 2" << endl;
            break;

        case 3:
            cout << "you have entered 3" << endl;
            break;
```

```
default:

    cout << "you have entered other number from 1-3" << endl;

}

system("pause");

}
```

Output:



```
C:\Users\vimsh\source\repos\ x + v
please enter any value from 1-3
2
you have entered 2
Press any key to continue . . . |
```

Task#2: Create a Calculator using switch statement now

Ask the user to enter 2 values

then ask the user to enter the operator

Sample output:

Enter first value? 3

Enter 2nd vale? 2

enter operator? +

3+2=5


```
#include<iostream>

using namespace std;

void main() {

    int a, b;

    char op;
```



```
cout << "enter 1st value" << endl;

cin >> a;

cout << "Enter 2nd value" << endl;

cin >> b;

cout << "Enter operator" << endl;

cin >> op;

switch (op) {

case '+':

    cout << "Addition: " << a + b;

    break;

case '-':

    cout << "Subtraction: " << a - b;

    break;

case '/':

    cout << "Division: " << a / b;

    break;

case '*':

    cout << "Multiplication: " << a * b;

    break;

default:

    cout << "invalid input" << endl;

}

}
```

Output:

```
Microsoft Visual Studio Debug Console
enter 1st value
4
Enter 2nd value
7
Enter operator
-
Subtraction: -3
C:\Users\rinsh\source\repos\Project1\x64\Debug\Project1.exe (process 18352) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

Task#3:Write a C++ code which take an (character) input from the user, your program should tell whether user

has entered a vowel or constant , if user enter any vowel your program should also display that vowel

using switch statement

Vowels = a,e,i,o,u

Sample Output:

Please enter a character ? i

you have enter a vowel

you have entered i

```
#include<iostream>
```

```
using namespace std;
```

```
void main() {
```

```
    char a;
```

```
    cout << "Enter any character" << endl;
```

```
    cin >> a;
```

```
    switch (a) {
```

```
        case'A':
```

```
        case'a':
```



```
case'E':  
case'e':  
case'I':  
case'i':  
case'O':  
case'o':  
case'U':  
case'u':  
    cout << "Vowels" << endl;  
    break;  
case'B':  
case'b':  
case'C':  
case'c':  
case'D':  
case'd':  
case'F':  
case'f':  
case'G':  
case'g':  
case'H':  
case'h':  
case'J':  
case'j':
```



case'K':

case'k':

case'L':

case'l':

case'M':

case'm':

case'N':

case'n':

case'P':

case'p':

case'Q':

case'q':

case'R':

case'r':

case'S':

case's':

case'T':

case't':

case'V':

case'v':

case'W':

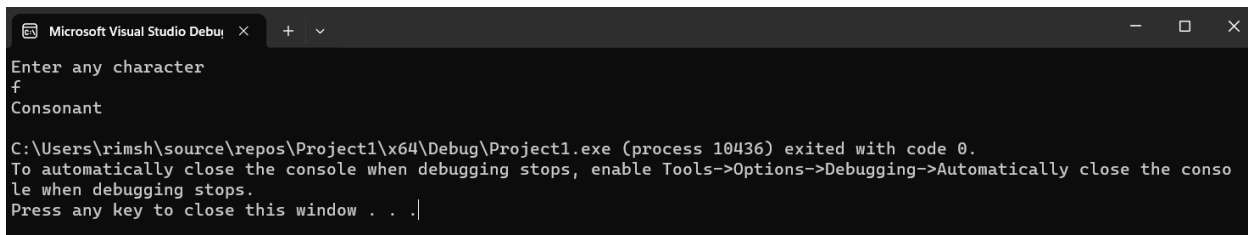
case'w':

case'X':

case'x':

```
case'Y':  
  
case'y':  
  
case'Z':  
  
case'z':  
  
    cout << "Consonant" << endl;  
  
    break;  
  
default:  
  
    cout << "Invalid Input" << endl;  
  
}  
  
}
```

Output:



```
Microsoft Visual Studio Debug Console  
Enter any character  
f  
Consonant  
C:\Users\rish\source\repos\Project1\x64\Debug\Project1.exe (process 10436) exited with code 0.  
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.  
Press any key to close this window . . .
```

Task#4: Run the sample # 02 and sample # 03 and get familiar with the loops in c++

Output:

Sample Code#2

```
C:\Users\vimsh\source\repos\ x + v
use of while loop
0
1
2
3
4
5
6
7
8
9
Press any key to continue . . . |
```

Sample Code#3

```
C:\Users\vimsh\source\repos\ x + v
use of do while
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
Press any key to continue . . . |
```

Task#5: Create a program to print the following sequence using while loop.

2

4

6

8

10

```
#include<iostream>
```

```
using namespace std;
```

```
void main() {
```

```
int i = 2;

while (i <= 10) {

    cout << i << endl;

    i = i + 2;

}

}
```

Output:

Task#6: Write a program to print the table of a number entered by user using do while loop.

Sample output:

Enter a number? 3

3x1=3

3x2=6

3x3=9

.....

3x12=36

```
#include<iostream>
```

```
using namespace std;
```

```
void main() {  
  
    int x, i = 1;  
  
    cout << "Enter a number" << endl;  
  
    cin >> x;  
  
    do  
  
    {  
  
        cout << x << "*" << i << "=" << x * i << endl;  
  
        i = i + 1;  
  
    } while (i <= 12);  
  
}
```

Output:



```
Microsoft Visual Studio Debug Console  
Enter a number  
3  
3*1=3  
3*2=6  
3*3=9  
3*4=12  
3*5=15  
3*6=18  
3*7=21  
3*8=24  
3*9=27  
3*10=30  
3*11=33  
3*12=36  
  
C:\Users\rimsh\source\repos\Project1\x64\Debug\Project1.exe (process 38144) exited with code 0.  
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.  
Press any key to close this window . . .|
```