

LAB TASK #2

Q1 Write a program that takes temperature in Fahrenheit from the user and converts it into Celsius using the formula: $c = \frac{5}{9} (F - 32)$

Solution:

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

int main()
{
    cout << "Muhammad Salman/nSAP Id: 72373" << endl;
    int F, C;
    cout << "Enter temperature in Fahrenheit: " << endl;;
    cin >> F;
    C = (5 / 9) * (F - 32);
    cout << "Temperature in Celsius:\n" << C << endl;
    return 0;
}
```



Microsoft Visual Studio Debug



Muhammad Salman/nSAP Id: 72373

Enter temperature in Fahrenheit:

1

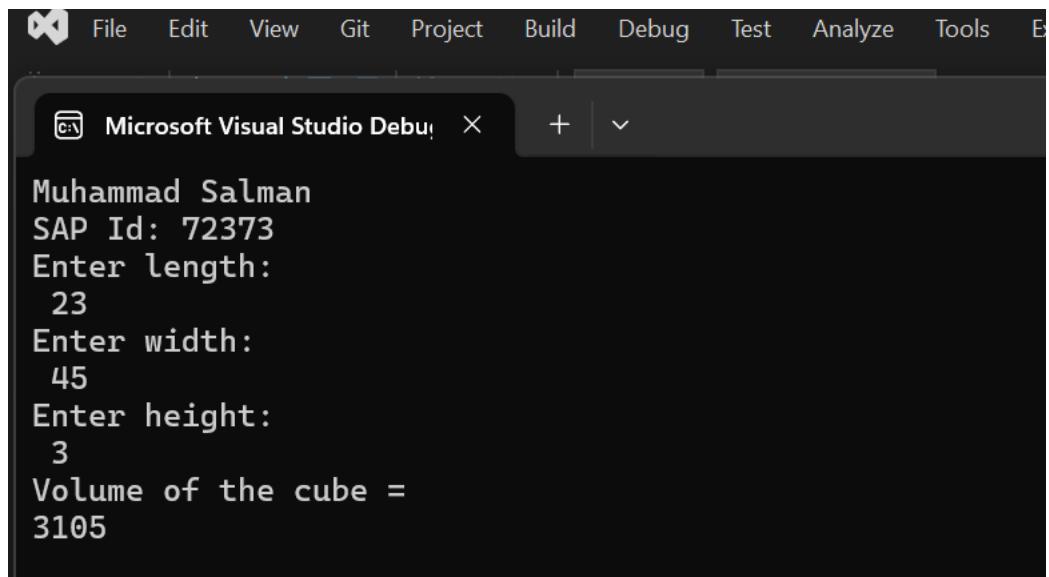
Temperature in Celsius:

0

Q2 Write a program that calculates the volume of a cube by taking its measurements (length, width, and height) from the user. Formula : $V = \text{length} * \text{width} * \text{height}$

Solution:

```
#include <iostream>
using namespace std;
int main()
{
    cout << "Muhammad Salman\nSAP Id: 72373" << endl;
    int length, width, height, volume;
    cout << "Enter length:\n ";
    cin >> length;
    cout << "Enter width:\n ";
    cin >> width;
    cout << "Enter height:\n ";
    cin >> height;
    volume = length * width * height;
    cout << "Volume of the cube = \n" << volume << endl;
    return 0;
}
```



The screenshot shows a Microsoft Visual Studio interface with a "Microsoft Visual Studio Debug" window open. The window displays the following text:

```
Muhammad Salman
SAP Id: 72373
Enter length:
23
Enter width:
45
Enter height:
3
Volume of the cube =
3105
```

Q3: Write a program that takes marks obtained by a student in five subjects and calculates the total marks and percentage.

Solution:

```
#include<iostream>
using namespace std;
int main()
{
    cout << "Muhammad Salman\nSAP Id:72373" << endl;
    int DS, ICT, PF, ENG, ISL, obt, per;
    cout << "Enter your Discrete Structure marks" << endl;
    cin >> DS;
    cout << "Enter your ICT marks" << endl;
    cin >> ICT;
    cout << "Enter your Programming Fundamentals marks" << endl;
    cin >> PF;
    cout << "Enter your ENG marks" << endl;
    cin >> ENG;
    cout << "Enter your ISI marks" << endl;
    cin >> ISL;
    obt = DS + ICT + PF + ENG + ISL;
    cout << "Your obtained marks is:\n" << obt << endl;
    per = obt * 100 / 500;
    cout << "Your percentage is:\n" << per << endl;
    return 0;
}
```

Microsoft Visual Studio Debug X + | ▾

```
Muhammad Salman
SAP Id:72373
Enter your Discrete Structure marks
85
Enter your ICT marks
92
Enter your Programming Fundamentals marks
90
Enter your ENG marks
86
Enter your ISl marks
94
Your obtained marks is:
447
Your percentage is:
89
```