

LAB TASK #3

Q1. Write a program input two numbers, swap the values and then display them.

Solution:

```
#include<iostream>

using namespace std;

int main()
{
    cout << "Muhammad Salman/nSAP Id:72373." << endl;

    int n1, n2, n3, n4;

    cout << "Enter your first number:" << endl;

    cin >> n1;

    cout << "Enter your second number:" << endl;

    cin >> n2;

    n3 = n2;

    n4 = n1;

    cout << "The values after swapping are below:" << endl;

    cout << "Now first value is:\n" << n3 << endl;

    cout << "Now second value is:\n" << n4 << endl;

    return 0;
}
```



Microsoft Visual Studio Debug Console



Muhammad Salman/nSAP Id:72373.

Enter your first number:

9

Enter your second number:

2

The values after swapping are below:

Now first value is:

2

Now second value is:

9

Q2. Write a program that input marks of three subjects, if the average of marks is more than 80 , it display two messages "You are above standard" and "Admission Granted".

Solution:

```
#include <iostream>

using namespace std;

int main()
{
    cout << "Muhammad Salman\nSAP Id:72373." << endl;

    float m1, m2, m3, average;

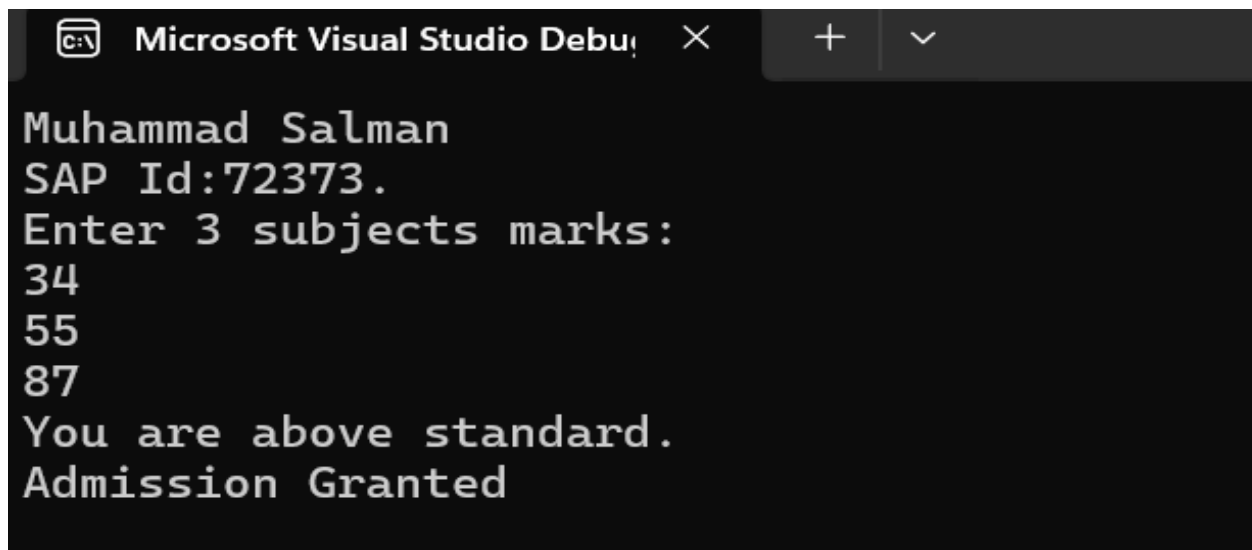
    cout << "Enter 3 subjects marks:" << endl;

    cin >> m1 >> m2 >> m3;

    average = m1 + m2 + m3 / 3;

    if (average > 80) {
        cout << "You are above standard.\nAdmission Granted" << endl;
    }

    return 0;
}
```

The image shows a screenshot of the Microsoft Visual Studio Debug Console. The window title is "Microsoft Visual Studio Debug Console". The output text is as follows:

```
Muhammad Salman
SAP Id:72373.
Enter 3 subjects marks:
34
55
87
You are above standard.
Admission Granted
```

Q3. Write a program that input two numbers and finds if second number is square of first number.

Solution:

```
#include <iostream>

using namespace std;

int main()
{
    cout << "Muhammad Salman\nSAP Id:72373." << endl;

    int n1, n2;

    cout << "Enter first number:" << endl;

    cin >> n1;

    cout << "Enter second number:" << endl;

    cin >> n2;

    if (n2 == n1 * n1) {
        cout << "The second number is square of first number:" << endl;
    }
    else {
        cout << "The second number is not the square of first number:" << endl;
    }

    return 0;
}
```



Microsoft Visual Studio Debug Console



Muhammad Salman

SAP Id:72373.

Enter first number:

7

Enter second number:

49

The second number is square of first number:

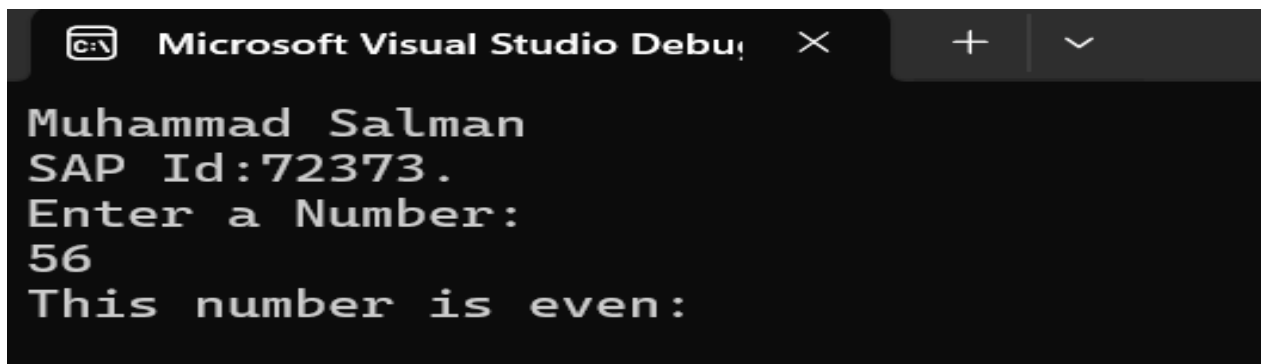
Q4. Write a program that input a number and find wheather the number is even or odd.

Solution:

```
#include <iostream>

using namespace std;

int main()
{
    cout << "Muhammad Salman\nSAP Id:72373." << endl;
    int n1;
    cout << "Enter a Number:" << endl;
    cin >> n1;
    if ( n1%2==0) {
        cout << "This number is even:" << endl;
    }
    else {
        cout << "This number is odd:" << endl;
    }
    return 0;
}
```

A screenshot of the Microsoft Visual Studio Debug Console. The window title is "Microsoft Visual Studio Debug Console". The output text is as follows:

```
Muhammad Salman
SAP Id:72373.
Enter a Number:
56
This number is even:
```

Q5. Write a program that input a number and determine it is positive , negative or 0.

Solution:

```
#include <iostream>

using namespace std;

int main()
{
    cout << "Muhammad Salman\nSAP Id:72373." << endl;
    int n1;
    cout << "Enter a number:" << endl;
    cin >> n1;
    if (n1 > 0) {
        cout << "This number is POSITIVE." << endl;
    }
    else if (n1 < 0) {
        cout << "This number is NEGATIVE." << endl;
    }
    else {
        cout << "This number is ZERO." << endl;
    }
    return 0;
}
```



Microsoft Visual Studio Debug Console X



Muhammad Salman

SAP Id:72373.

Enter a number:

-675

This number is NEGATIVE.

Q6: Write a program that input three numbers and display maximum number.

Solution:

```
#include<iostream>

using namespace std;

int main() {

    cout << "Muhammad Salman\nSAP Id:72373." << endl;

    int n1, n2, n3;

    cout << "Enter three numbers:" << endl;

    cin >> n1 >> n2 >> n3;

    if (n1 > n2) {

        if (n1 > n3)

            cout << "Maximmum number is:" << n1 << endl;

        else

            cout << "Maximmum number is:" << n3 << endl;

    }

    else {

        if (n2 > n3)

            cout << "Maximum number is:" << n2 << endl;

        else

            cout << "Maximum number is:" << n3 << endl;

    }

    return 0;

}
```



Microsoft Visual Studio Debug Console



Muhammad Salman

SAP Id:72373.

Enter three numbers:

33

78

34

Maximum number is:78