



Name:

Wajiha Zahid

Roll No:

S24-040

Subject:

"DSA LAB "

Section

BSSE-3A

Resource Person:

Sir Rasikh Ali

(Lab Task 1)

Q1: Pointers

Task: Create a program that declares an integer variable and a pointer to it. Modify the value of the variable using the pointer and display both the variable and pointer values.

Answer:

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {
```

```
int num = 10;
```

```
int* ptr = &num;
```

```
// Print initial values
```

```
cout << "Value of num: " << num << endl;
```

```
cout << "Address of num: " << &num << endl;
```

```
cout << "Value of ptr: " << ptr << endl;
cout << "Value pointed by ptr: " << *ptr << endl;
```

```
// Modify value using pointer
```

```
*ptr = 20;
```

```
// Print modified values
```

```
cout << "\nModified value of num: " << num << endl;
cout << "Modified value of ptr: " << ptr << endl;
cout << "Modified value pointed by ptr: " << *ptr << endl;
```

```
return 0;
```

```
}
```

Output:

```
Value of num: 10
Address of num: 0x6ffe04
Value of ptr: 0x6ffe04
Value pointed by ptr: 10

Modified value of num: 20
Modified value of ptr: 0x6ffe04
Modified value pointed by ptr: 20

-----
Process exited after 0.2305 seconds with return value 0
Press any key to continue . . .
```

