Lab Tasks:

1. Write a program to demonstrate how to handle the pointers in the program and demonstrate the use of & and * operators.

   Code:

```cpp
#include <iostream>

using namespace std;
int main()
{
	int var1 = 12, var2 = 32, var3 = 21;
	int* ptr1, * ptr2, * ptr3;
	ptr1 = &var1;
	ptr2 = &var2;
	ptr3 = &var3;
	cout << "Address of var1: " << ptr1;
	cout << "\nAddress of var2: " << ptr2;
	cout << "\nAddress of var3: " << ptr3;
	cout << "\nValue of var1: " << *ptr1;
	cout << "\nValue of var2: " << *ptr2;
	cout << "\nValue of var3: " << *ptr3;
	cout << endl;
	 return 0;
}
```

   Output:

```
Address of var1: 000000C345AFF8C4
Address of var2: 000000C345AFF8E4
Address of var3: 000000C345AFF904
Value of var1: 12
Value of var2: 32
Value of var3: 21
```

2. Write a program to find the maximum number between two numbers using a pointer.

   Code:

```cpp
#include <iostream>
using namespace std;
int main()
{
	int num1, num2, * ptr1, * ptr2;
	cout << "Enter the first number: ";
	cin >> num1;
	cout << "Enter the second number: ";
	cin >> num2;
	ptr1 = &num1;
	ptr2 = &num2;
	if (*ptr1 > *ptr2)
	{
		cout << *ptr1 << " is greater than " << *ptr2;
	}
	else
	{
		cout << *ptr2 << " is greater than " << *ptr1;
```

```
        }
        cout << endl;
         return 0;
}
```

Output:

```
Enter the first number: 63
Enter the second number: 40
63 is greater than 40
```

3. Write a program to add two numbers using pointers.

   Code:

```
#include <iostream>
using namespace std;
int main()
{
        int num1, num2, * ptr1, * ptr2, sum;
        cout << "Enter the first number: ";
        cin >> num1;
        cout << "Enter the second number: ";
        cin >> num2;
        ptr1 = &num1;
        ptr2 = &num2;
        sum = *ptr1 + *ptr2;
        cout << "Sum of " << *ptr1 << " and " << *ptr2 << " is: " << sum;
        cout << endl;
         return 0;
}
```

   Output:

```
Enter the first number: 25
Enter the second number: 48
Sum of 25 and 48 is: 73
```

4. Write a program to store 5 elements in an array and print the elements using a pointer.

   Code:

```
#include <iostream>
using namespace std;
int main()
{
        int *ptr;
        int arr[] = {12,32,43,54,73};
        cout << "The elements of array is: ";
        for (int i = 0; i < 5; i++)
        {
                ptr = &arr[i];
                cout << *ptr << " ";
        }
        cout << endl;
         return 0;
}
```

Output: