Lab Tasks:

1. Write a C++ program to accept five integer values in an array using pointer offset notation.

   Code:

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

int main()
{
	int arr[5];
	int* p;
	for (int i = 0; i < 5; i++)
	{
		p = &arr[0+i];
		cout << "Enter the " << i+1 << " element of the array: ";
		cin >> *p;
	}

	return 0;
}
```

   Output:

```
Enter the 1 element of the array: 5
Enter the 2 element of the array: 9
Enter the 3 element of the array: 8
Enter the 4 element of the array: 3
Enter the 5 element of the array: 21
```

2. Write a C++ function to sort an array of ten integer values in ascending order.

   Code:

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

void sort_array(int(&arr)[12]);

int main()
{
	int arr[] = { 7,3,9,2,12,65,74,34,86,45,32,1 };
	sort_array(arr);
	cout << "Sorted array: ";
	for (int i = 0; i < 12; i++)
	{
		cout << arr[i] << " ";
	}
	cout << endl;
	return 0;
}
void sort_array(int (&arr)[12])
{
	int temp;
	for (int i = 0; i < 12; i++)
	{
		for (int j = 1; j < 12-i; j++)
```

```
            {
                if (arr[i] > arr[j + i])
                {
                    temp = arr[i];
                    arr[i] = arr[j + i];
                    arr[j + i] = temp;
                }
            }
        }
}
```

Output:

```
Sorted array: 1 2 3 7 9 12 32 34 45 65 74 86

F:\CPP\FOP\LAB MANUAL\VISUAL STUDIO\Project01\x64\Debug\Project01.exe (p
Press any key to close this window . . .
```

3. Write a program in C++ to find the maximum number between two numbers using a pointer.

Code:

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

int max(int*, int*);

int main()
{
    int num1, num2;
    cout << "Enter the first number: ";
    cin >> num1;
    cout << "Enter the second number: ";
    cin >> num2;
    cout << "Maximum number is: " << max(&num1, &num2);

    cout << endl;
    return 0;
}
int max(int* b, int* a)
{
    int max;
    if (*a > *b)
        max = *a;
    else
        max = *b;
    return max;
}
```

Output:

```
Enter the first number: 12
Enter the second number: 23
Maximum number is: 23
```

4. Write a program to convert kilograms to grams by passing pointers as arguments to the function.

Code:

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

int kilogram_to_gram(int*);

int main()
{
	int kg;
	cout << "Enter the weigth in kilogram: ";
	cin >> kg;
	cout << "Weight in kilogram: " << kilogram_to_gram(&kg);
	cout << endl;
	return 0;
}
int kilogram_to_gram(int* kg)
{
	int grams;
	grams = *kg * 1000;
	return grams;
}
```

Output:

```
Enter the weigth in kilogram: 45
Weight in kilogram: 45000
```