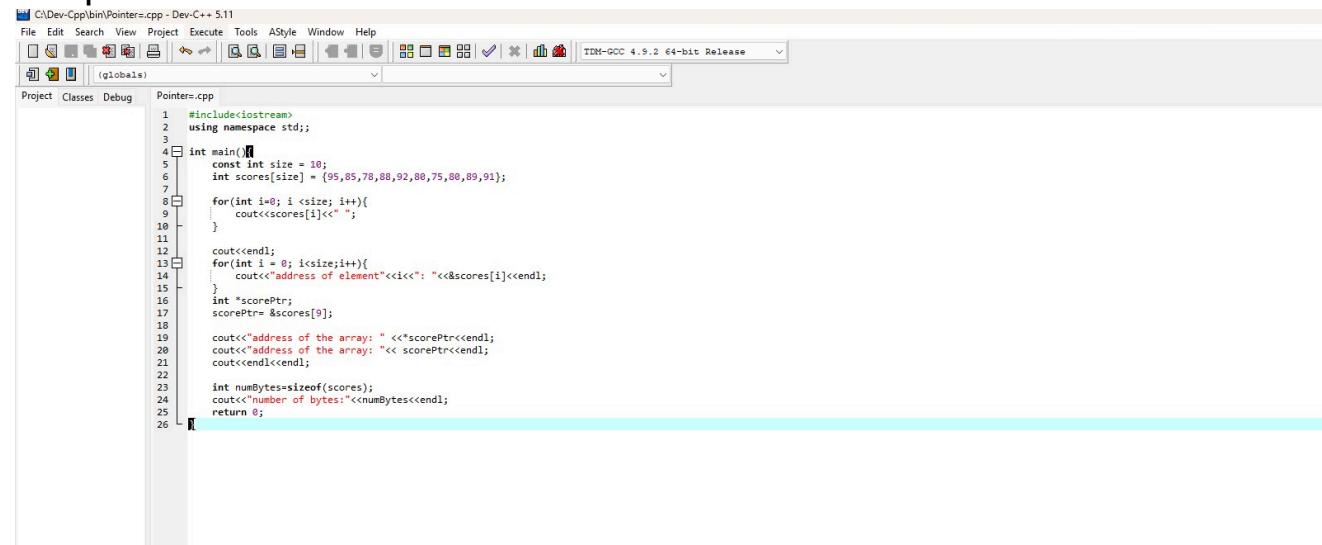


## Activity No. 4.2

### Pointers

<b>Course Code:</b> CPE007	<b>Program:</b> Computer Engineering
<b>Course Title:</b> Programming Logic and Design	<b>Date Performed:</b> 9/18/25
<b>Section:</b> CPE11S1	<b>Date Submitted:</b> 9/18/25
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### 6. Output



The screenshot shows the Dev-C++ IDE interface with the following details:

- Title Bar:** C:\Dev-Cpp\bin\Pointer.cpp - Dev-C++ 5.11
- Menu Bar:** File, Edit, Search, View, Project, Execute, Tools, AStyle, Window, Help
- Toolbar:** Standard icons for file operations like Open, Save, Print, etc.
- Status Bar:** TDN-GCC 4.9.2 64-bit Release
- Project Explorer:** Shows a single project named "Pointer".
- Code Editor:** Displays the following C++ code:

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

int main(){
    const int size = 10;
    int scores[size] = {95,85,78,88,92,88,75,80,89,91};

    for(int i=0; i < size; i++){
        cout<<scores[i]<< endl;
    }

    cout<<endl;
    for(int i = 0; i<size;i++){
        cout<<"address of element "<<i<<": "<<&scores[i]<<endl;
    }
    int *scorePtr;
    scorePtr= &scores[9];
    cout<<"address of the array: "<<*scorePtr<<endl;
    cout<<"address of the array: "<< scorePtr<<endl;
    cout<<endl<<endl;

    int numBytes=sizeof(scores);
    cout<<"number of bytes:"<<numBytes<<endl;
    return 0;
}
```

**Explanation:** Pointers operate by recording the memory address of the fourth item (`scores[3]`) in a pointer variable and next outputting that address. At the end, the program figures the total amount of memory the whole array occupies in bytes and shows this number before exiting.

### 7. Supplementary Activity

**8. Conclusion:** Just to say, it's a very good beginner's guide to the basic concepts of computer science. One of the best things is that you can see a real-life example of how a list of items (an array) is used to store data in an efficient way. By revealing the actual memory addresses, the code is simply the one which is used to show how data are physically stored in computers, and also that arrays are the way to have the items which are stored to be next to each other in one row without any gaps. This is a very crucial point which affects the programs' running time significantly. Furthermore, it slightly introduces the concept of "pointers", which are like bookmarks that indicate a certain memory place, a very important thing in C++. Moreover, the act of determining the array's size is a kind of a reminder that everything which is done by the code has to have its own space in the memory. Overall, this short piece of a program is a wonderful medium to realize the connection between the programming abstract concepts and the physical changes inside the machine.