

Graded ICA010 – Pointing

CS 244

Graded In-Class Activity – Pointing

- Take 15 to 20 minutes
- Enter, Compile, and Run the following program.
- Submit your code to D2L before the end of class today

```
// Pointing
// Demonstrates using pointers
#include <iostream>
#include <string>
using namespace std;
int main()
{
    int* pAPointer; //declare a pointer
    int* pScore = 0; //declare and initialize a pointer
    int score = 1000;
    pScore = &score; //assign pointer pScore address of
                     // variable score
    cout << "Assigning &score to pScore\n";
    cout << "&score is: " << &score << "\n"; // address of score
                                           // variable
    cout << "pScore is: " << pScore << "\n"; //address stored
                                           // in pointer
    cout << "score is: " << score << "\n";
    cout << "*pScore is: " << *pScore << "\n\n"; // value pointed
                                           // to by pointer
}
```

```
cout << "Adding 500 to score\n";
score += 500;
cout << "score is: " << score << "\n";
cout << "*pScore is: " << *pScore << "\n\n";
```

```
cout << "Adding 500 to *pScore\n";
*pScore += 500;
cout << "score is: " << score << "\n";
cout << "*pScore is: " << *pScore << "\n\n";
```

```
cout << "Assigning &newScore to pScore\n";
int newScore = 5000;
pScore = &newScore;
cout << "&newScore is: " << &newScore << "\n";
cout << "pScore is: " << pScore << "\n";
cout << "newScore is: " << newScore << "\n";
cout << "*pScore is: " << *pScore << "\n\n";
```

```
cout << "Assigning &str to pStr\n";
string str = "score";
string* pStr = &str; //pointer to string object
cout << "str is: " << str << "\n";
cout << "*pStr is: " << *pStr << "\n";
cout << "(*pStr).size() is: " << (*pStr).size() << "\n";
cout << "pStr->size() is: " << pStr->size() << "\n";
```

```
return 0;
}
```