

EECE.3220: Data Structures

Spring 2017

Lecture 3: Key Questions
January 23, 2017

1. Describe the key details of structures in both C and C++.

2. **Example:** Show the output of the following short program. Assume the user enters the following when prompted for input: **-1 1**

```
#include <iostream>

using namespace std;

struct Point {
    double x;
    double y;
};

int main() {
    Point p1 = {3, 5};
    Point p2 = {7.8, 9.1};

    cout << "p1: (" << p1.x << ", " << p1.y << ")\n";
    cout << "p2: (" << p2.x << ", " << p2.y << ")\n";

    cout << "Enter new x, y for p1: ";
    cin >> p1.x >> p1.y;

    p2 = p1;
    p2.x -= 1.2;
    p1.y *= 2;

    cout << "p1: (" << p1.x << ", " << p1.y << ")\n";
    cout << "p2: (" << p2.x << ", " << p2.y << ")\n";

    return 0;
}
```