Amanda Lewis Programming Languages Dr. Gupta September 7, 2018

Homework #1

- 1. The first programming language I learned was python in Concepts I. I did not choose it, but I think that python is the first language they teach at St. Edward's because it is generally human-readable and has only a few strict rules. For example, java has many more rules about syntax, method declarations and semicolons, but python does not have all that.
- 2. Question 2
 - a. String 4message = "Variable names cannot begin with a number!";
 - b. Strnig message = "'String' is misspelled!";
 - c. char ch = "a";
 - d. Dynamic semantic error:
 - i. Int x = 8;
 - ii. Int y = 0;
 - iii. Int z = x/y;
 - iv. Print(z)
 - e. Having a memory leak or unused variables.
- 3. C and C++ are generally faster as they operate closer to the memory level, while languages like Java take slightly longer to run, but also have the added benefit of a stack trace error that will show you what kind of error you got, and where it came from, while with a language like C, it will write a value to a memory address or maybe seg-fault on you.
- 4. Discard
- 5. In C, you have more control over memory, and it has more extensibility and more features, so it's easy to update the security.