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ITCS 4102 Section 091

Assignment I: Programming Languages and Their Uses

**Swift:**

1. Multipurpose, multi-paradigm Compiled Language developed by Apple.
2. Is mainly used to develop Applications for MacOS, iOS, and sometimes even Linux.
3. Apple, Lyft, Square, Zillow etc.
4. Even though it is based in C, Swift has a safer workflow design which makes it easier to catch different bugs and helps with a lot of different errors such as null pointer references.

**Python:**

1. General-purpose programming language. Emphasis on code readability, and notability.
2. Desktop and Web Applications. Strong in Data Analysis and Visualization.
3. Spotify, Amazon, Facebook, Survey Monkey, Instagram, etc.
4. The most important features that make the language so powerful is the way it is designed to take care of Data Analysis and different Visualizations of the data.

**Rust:**

1. Rust is a multi-paradigm systems programming language that has a high focus on safety.
2. Even though Rust is very similar to C++ it is mainly used to increase safety and concurrency.
3. Mozilla, Dropbox, etc.
4. The most important features of Rust is its ability to create safe programs as well as dramatically increase concurrency to decrease the chances of any algorithms running out of order and messing up the whole program.