Introduction to the world of Python

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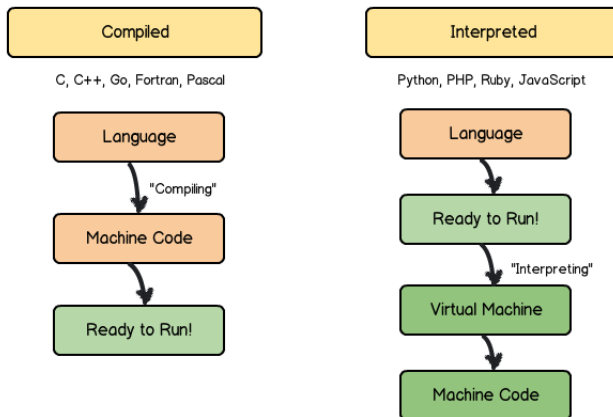# Python

What is Python?

Python is an interpreted programming language.

Also Python is an object-oriented programming language.

Procedural vs. Object-Oriented

- Procedural

- Object Oriented

Withdraw, deposit, transfer

Customer, money, account

May 25, 2013   COMSATS Institute of Information Technology   4

Why use Python?

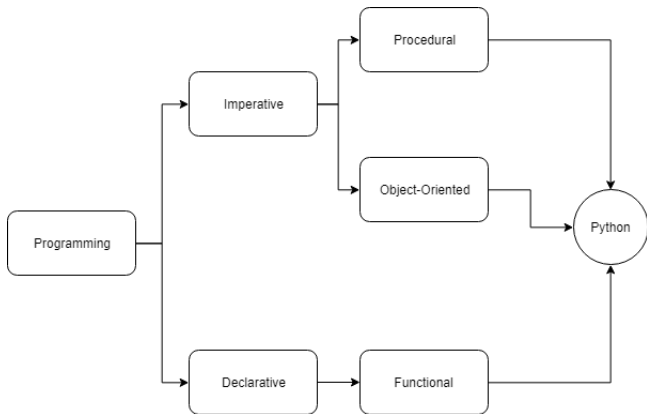- Readable and Maintainable Code

Java

```
 1  import java.util.ArrayList;
 2
 3  public class Main {
 4      public static void main(St
    ring[] args) {
 5          ArrayList al = new Arr
    ayList();
 6          al.add("a");
 7          al.add("b");
 8          al.add("c");
 9          System.out.println(al)
    ;
10      }
11  }
```
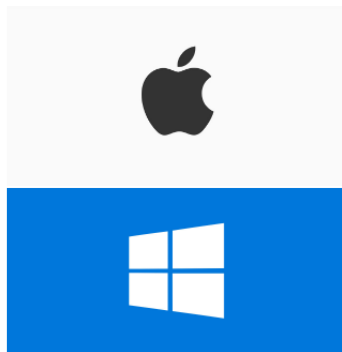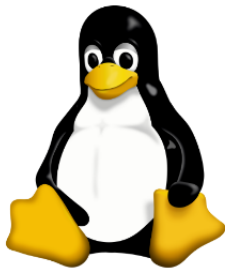
Python

```
 1  aList = []
 2
 3  aList.append("a")
 4  aList.append("b")
 5  aList.append("c")
 6
 7  print(aList)
```

- Multiple Programming Paradigms

■ Compatible with Major Platforms and Systems
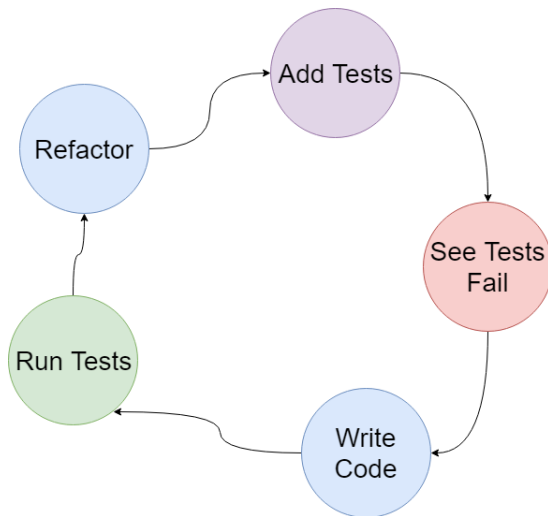
■ Robust Standard Library

data types	strings	networking	threads
operating systems	compression	GUI	arguments
CGI	complex numbers	FTP	cryptography
testing	multimedia	databases	CSV files
calendar	email	XML	serialization

- Many Frameworks and Tools

■ Adopt Test Driven Development

Cool projects made with Python

- Serpent.AI - Game Agent Framework (Python)
- Manim - Mathematical Animation Engine Open Source
- InstaPy - Instagram Bot