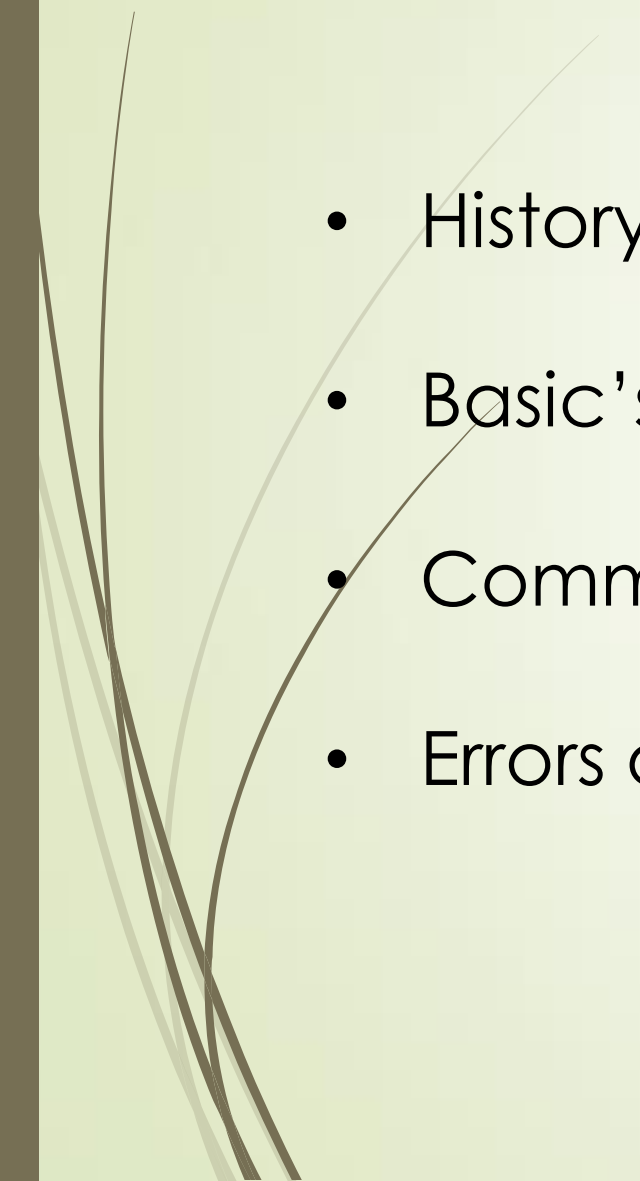
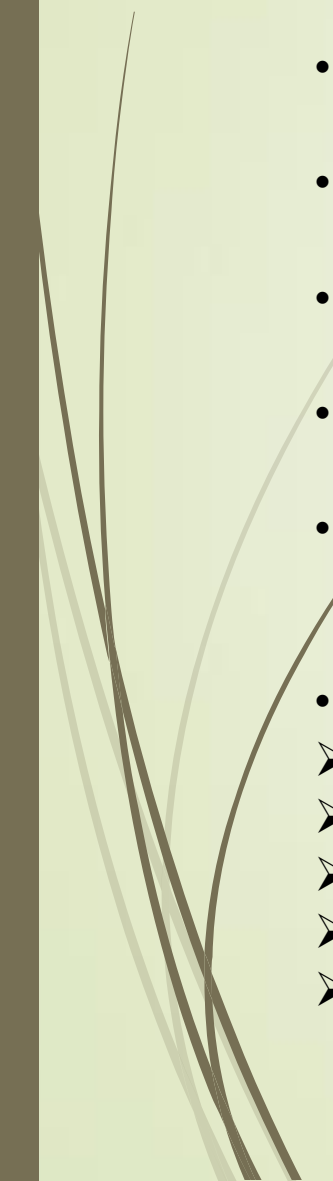




PYTHON

- History and Overview of Python
 - Basic's of Python
 - Command Line Programs
 - Errors and Exceptions
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- Python is a high-level, interpreted, interactive and object-oriented scripting language.
 - Python was developed by Guido van Rossum .
 - Blocks of code are denoted by line indentation, which is rigidly enforced.
 - Accept Input in python.
 - The declaration for python variables happens automatically when you assign a value to a variable.
 - Python has five standard data types –
 - Numbers
 - String
 - List
 - Tuple
 - Dictionary



A function is a block of organized, reusable code that is used to perform a single, related action.

The basic I/O functions available in Python.

Python provides basic functions and methods necessary to manipulate files by default.

You can check out the library functions here-

<https://docs.python.org/3.3/library/functions.html>



Command Line Programs

- In this lesson we will be typing commands in a shell terminal window such as bash rather than the python interpreter.
- The IPython Notebook and other interactive tools are great for prototyping code and exploring data, but sometimes we will want to use our program in a pipeline or run it in a shell script to process a much larger data.
- So to be able to do that we need to make our programs work like other Unix command-line tools.
- We need to handle how to get the command line arguments in a program and how to get the standard input.

Errors and Exceptions

- We all encounter errors while programming. Errors and exceptions can be frustrating at times.
- The errors in python have a specific form which is known as traceback.
- The traceback will show you the levels of an error. The first level is the function call and the second or the last level is the place where the error has actually occurred.
- Sometimes the traceback can go multiple levels so just refer to the last level for actual error.
- If we do not know the error properly it is essential to read the traceback properly.
- There is a official documentation of the errors encountered.

<https://docs.python.org/3/library/exceptions.html>



Types of Errors-

- Syntax Errors
- Variable Name Errors
- Item Errors
- File Errors

Assertions-

- An assertion is a sanity-check that you can turn on or turn off when you are done with your testing of the program.
- An expression is tested, and if the result comes up false, an exception is raised.
- Assertions are carried out by the assert statement.



Thank You