



PyTrain

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Overview

An introduction to the Python programming language(v2.7), designed for entry level to mid level developers aged around 24-34

Goals

1. To introduce to the participants Python, it's power and philosophy
2. At the end of the session, participants should be able to
 - a. read a basic python program
 - b. be familiar with data types, functions, classes
 - c. Be familiar with strings, lists, dictionaries, sets and tuples
 - d. Have an idea of file handling
 - e. Have an idea of basic exception handling
 - f. Have some idea of iterators, generators, lambda and listcomp [optional]
3. To provide an opportunity to work on a real - albeit tiny - project

Specifications

1. Introduction
 - What - Python - small introduction to it's philosophy (import this)
 - Why - Motivation - why should you care
 - Use
 - What will we cover today ?
 - Structure of the language - how is a program written in python - hello world
 - Checkpoint - 5 pop questions
2. Session goals
 - Discuss a sample program - start with a very basic program and live code enhance it
 - Checkpoint - 5 pop questions
 - Introductory goals - basics syntax, if else, loops, functions and classes
 - i. Provide a skeleton program and a scenario program
 - ii. Discuss the high level solution program
 - iii. Ask participants to solve the program
 - iv. Discuss

- Context for lists and strings with a mini problem
 - 2 pop questions
 - Context for dict type - touch sets and tuples if possible with a mini problem
 - 2 pop questions
 - File handling - mini problem with and without try catch
 - 2 pop questions
3. Discussion on the quiz module mini project
 4. Conclusion and 5 pop questions to wrap up

Sample Programs to use

1. Discussion programs
 - a. Hello world
 - b. Asking your name
 - c. Check if you are Ram or Sita
 - d. Summing first 5 numbers
2. Code example exercise - number game
3. Lists - discuss the importance and use with example
4. Strings - slicing, let's find the camel case
5. Explain dictionary, and look at fibonacci memoization

Todo

I. Pop questions - topic wise

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