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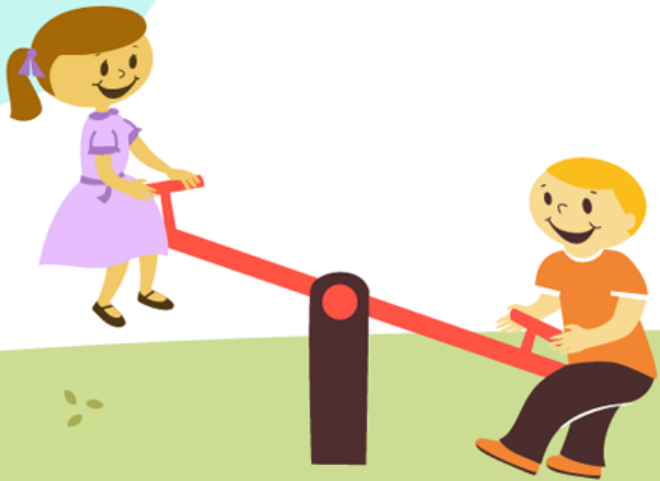
EXCEL THE LEARNING ZEAL; LIKE A KID!



Instructor:

- Experience:
 - 18+ years
 - 40+ Certifications
 - Multiple Domains
- LinkedIn Profile
 - <https://www.linkedin.com/in/krishnamanchikalapudi/>

Tutor: Python [Basic]



Prerequisite

- Laptop or Desktop
- Internet connection



5-May-20

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Session 1: Agenda

- Overview
- Software install



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Install Software - Windows

Python 3.x software

<https://www.python.org/downloads/windows/>

Editor 'Pycharm' Community Edition

<https://www.jetbrains.com/pycharm/download/#section=windows>



Install Software - Mac

Python 3.x software

<https://www.python.org/downloads/mac-osx/>

Editor 'Pycharm' Community Edition

<https://www.jetbrains.com/pycharm/download/#section=mac>



Install Software – Linux

Python 3.x software

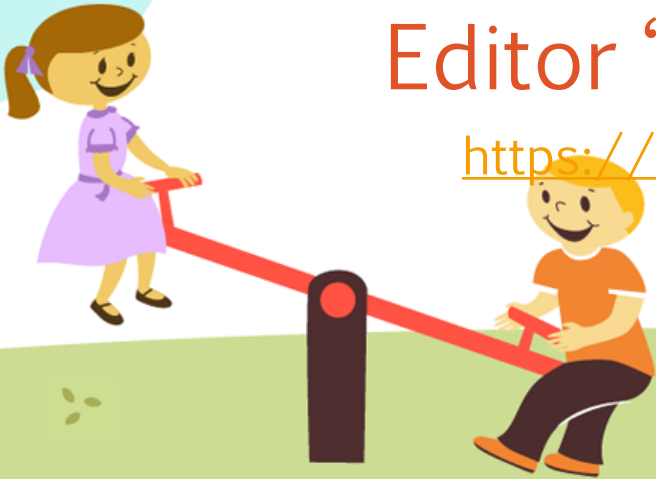
Open terminal and run below commands

```
sudo apt update
```

```
sudo apt-get install python3
```

Editor 'Pycharm' Community Edition

<https://www.jetbrains.com/pycharm/download/#section=linux>



Session 2: Agenda

- Hello World
- Comments
 - # single line
 - """ multiple line """
- String format
- Variable



HOME WORK

- Create new project 'HW-session-2'
- Create new file 'HW.py'.
- Write your own creative statement and assign to variable.
- Print the variable

Session 3: Agenda

- User input
 - Input
- Variable types
 - Int
 - Float
 - String
 - Boolean
- Array or List



HOME WORK

- Create new project 'HW-session-3'
- Create file 'HW.py'
- Copy below code to HW.py & explain why print statement works or fail with an error
 - `num1 = 10`
 - `num2 = 20`
 - `float1 = 10.99`
 - `string1 = "hello world"`
 - `print (num1 + num2)`
 - `print (num1 + float1)`
 - `print (num1 + string1)`
 - `print (float1 + string1)`
- Explain the output

Session 4: Agenda

- Basic Operators
 - Add, subtract, multiply, division
 - Square, cube
- Conditional statement
 - If
 - if else
 - If else-if 'elif' else



HOME WORK

- Create new project ' HW-session-4'
- Create file 'HW.py'
- Ask for user input
 - number 1. Tip: `input("Enter number 1: ")`
 - number 2. Tip: `input("Enter number 2: ")`
- Copy the below code & explain the answers
 - `print('num1 + num2 = ', num1 + num2)`
 - `print('num1 - num2 = ', num1 - num2)`
 - `print('num1 * num2 = ', num1 * num2)`
 - `print('num1 / num2 = ', num1 / num2)`
- Explain the output

Session 5: Agenda

- Loops
 - while
 - for
- Functions



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HOME WORK

- Create new project ' HW-session-5'
- Create file 'HW.py'
- Create 1 function 'calculator' with 3 arguments: num1, num2, operator
- Call function with add '+', subtract '-', multiply '*', division '\' using multiple if elif else statement

Session 6: Agenda

- Comparison Operators
 - $<$, $>$, $<=$, $>=$, $==$, $!=$
- Boolean Operators
 - and, or, not, in, not in, is, is not
- Operator Precedence



HOME WORK

- NO assignment

Session 7: Agenda

- Ternary
- Function returns value
- String functions
 - split
 - join



HOME WORK

- Create new project ' HW-session-7'
- Create file 'HW.py'
- Create multiple functions (add, subtract, multiply, division) returns value
- Create main function 'calculator', based on operator, call other function.
 - TIP: extension to HW-session-5

Session 8: Agenda

- Numeric functions

- int
- Ceil
- floor
- fabs
- Factorial

- Set

- Set vs List



HOME WORK

- Create new project ' HW-session-8'
- Create file 'HW.py'
- Create set with multiple string.
 - Tip: myset = {'orange', 'apple', 'pear', 'banana', 'kiwi', 'pineapple', 'apple'}
 - Iterate using 'for' loop
- Create set with multiple string.
 - Tip: mylist = ['orange', 'apple', 'pear', 'banana', 'kiwi', 'pineapple', 'apple']
 - Iterate using loops: while & for

Session 9: Agenda

- File I/O

- open
- read
- write

- Class



HOME WORK

- Create new project ' HW-session-9'
- Create file 'HW.py'
- Create class
- Create calculator functions: add, subtract, multiply, division
- Call calculator functions

Session 10: Agenda

- code at <https://github.com/krishnamanchikalapudi/examples.py/tree/develop/PythonTutor>
- Samples
 - Rolling the dice
 - Draw: square, rectangle, circle
 - Fibonacci
 - Prime number
 - swap values



Thank you

