

# DS016- Python fundamental (Hands-on Session)

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## Python IDE (integrated development environment):

- **Example:**
  - PyCharm
  - Visual Studio Code (VS Code)
  - **Jupyter Notebook**
  - Atom
  - Google Colab (cloud IDE)
- Which of these have you used previously?
- **Introduction to jupyter notebook and jupyter lab**
  - **What is Jupyter?** Project Jupyter is an open source project was born out of the IPython Project in 2014 as it evolved to support interactive data science and

scientific computing across all programming languages.

- Getting started with jupyter: <https://realpython.com/jupyter-notebook-introduction/>
- Resources: <https://www.datacamp.com/tutorial/installing-jupyter-notebook>

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## Python Language:

### Covered concepts:

	Concept	Exercise 1	Exercise 2	Exercise 3
1	Print	<a href="#">Link</a>	<a href="#">Link</a> <a href="#">Link</a>	<a href="#">Link</a>
2	Variables & Data Types & Type Conversion	<a href="#">Link</a>	<a href="#">Link</a> <a href="#">Link</a> <a href="#">Link</a>	<a href="#">Link</a> <a href="#">Link</a> <a href="#">Link</a>
3	Lists	<a href="#">Link</a>	<a href="#">Link</a>	<a href="#">Link</a>
4	Tuple	<a href="#">Link</a>	<a href="#">Link</a>	
5	Set	<a href="#">Link</a>		<a href="#">Link</a>
6	Dictionary	<a href="#">Link</a>	<a href="#">Link</a>	<a href="#">Link</a>
7	Basic operators	<a href="#">Link</a>	<a href="#">Link</a>	<a href="#">Link</a>
8	Strings	<a href="#">Link</a> <a href="#">Link</a>	<a href="#">Link</a> <a href="#">Link</a> <a href="#">Link</a>	<a href="#">Link</a>
9	Conditions	<a href="#">Link</a>	<a href="#">Link</a>	<a href="#">Link</a>
10	Loops	<a href="#">Link</a>	<a href="#">Link</a> <a href="#">Link</a>	<a href="#">Link</a> <a href="#">Link</a>
11	Functions	<a href="#">Link</a>	<a href="#">Link</a>	<a href="#">Link</a>
12	Python built-in function (sort, len, zip, range)		<a href="#">Link</a> <a href="#">Link</a> <a href="#">Link</a> <a href="#">Link</a>	

			<a href="#">Link</a> <a href="#">Link</a> <a href="#">Link</a> <a href="#">Link</a>	
13	Break & Continue		<a href="#">Link</a>	
14	Lambda functions	<a href="#">Link</a>	<a href="#">Link</a>	<a href="#">Link</a>
15	Handel exception	<a href="#">Link</a>	<a href="#">Link</a>	
16	List Comprehension	<a href="#">Link</a>	<a href="#">Link</a> <a href="#">Link</a>	
17	Dict Comprehension		<a href="#">Link</a>	