**PYTHON**

* **BASICS**

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| **SL NO.** | **CHAPTERS** | **TOPICS** |
| **01** | CHAPTER - 0 | **COMMAND LINE AND DEVELOPMENT ENVIRONMENT SETUP** |
| **02** | CHAPTER - 1 | **PYTHON BASICS, OPERATORS, CALCULATIONS** |
| **03** | CHAPTER - 2 | **ALL ABOUT STRINGS** |
| **04** | CHAPTER - 3 | **ALL ABOUT CONDITIONALS AND LOOPS** |
| **05** | CHAPTER - 4 | **ALL ABOUT FUNCTIONS** |
| **06** | CHAPTER - 5 | **LIST** |
| **07** | CHAPTER - 6 | **TUPLES** |
| **08** | CHAPTER - 7 | **DICTIONARIES AND DATA MODELING** |
| **09** | CHAPTER - 8 | **SETS** |
| **10** | CHAPTER - 9 | **LIST COMPREHENSION** |
| **11** | CHAPTER - 10 | **DICTIONARY COMPREHENSION AND SETS COMPREHENSION** |
| **12** | CHAPTER - 11 | **ADVANCE FLEXIBLE FUNCTIONS** |
| **13** | CHAPTER - 12 | **LAMDA EXPRESSIONS** |
| **14** | CHAPTER - 13 | **ADVANCE BUILT-IN FUNCTIONS** |
| **15** | CHAPTER - 14 | **DECORATORS** |
| **16** | CHAPTER - 15 | **GENERATIORS** |

* **ADVANCE**

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| **SL NO.** | **CHAPTERS** | **TOPICS** |
| **17** | CHAPTER - 16 | **OOP BASICS** |
| **18** | CHAPTER - 17 | **OOP ADVANCE** |
| **19** | CHAPTER - 18 | **WORKING WITH FILES** |
| **20** | CHAPTER - 19 | **WORKING WITH CSV FILES** |
| **21** | CHAPTER - 20 | **PYTHON MODULES** |
| **22** | CHAPTER - 21 | **FIRST PROJECT(APPLICATION)** |
| **23** | CHAPTER - 22 | **SECOND PROJECT(APPLICATION)** |
| **24** | CHAPTER - 23 | **GUI PROGRAMMING WITH TKINTER PART-01** |
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| **28** | CHAPTER - 27 | **WEB SCRAPPING** |
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| **30** | CHAPTER - 29 | **DATABASES IN PYTHON** |
| **31** | CHAPTER - 30 | **SIXTH PROJECT (GUI APPLICATION)** |
| **32** | CHAPTER - 31 | **SEVENTH PROJECT (GUI APPLICATION)** |
| **33** | CHAPTER - 32 | **WORKING WITH PDF FILES** |
| **34** | CHAPTER - 33 | **REGULAR EXPRESSION PART - 01** |
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| **37** | CHAPTER - 36 | **ONE MORE GUI APPLICATION** |
| **38** | CHAPTER - 37 | **WHATS NEXT!!** |

**CHAPTER - 00**

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**Python 2 vs python 3**

**Python 3 was not back compatible. Means we can not use python 2’s code in python 3. After 2020, py2 has stopped lunching their library and that’s why everybody has to move to py3. On the other hand, py3 is quite faster then py2 and every library which was in py2 has been added to py3.**

**Download and install Python, VScode and GIT**

**In order to follow this note, we have to download python, VScode and GIT**

**Download python from –** <https://python.org>

**Download VScode from –** <https://code.visualstudio.com/download>

**Download GIT from -** <https://git-scm.com/downloads>

**Integrate Git bash with VScode**

**IF VScode does not show the “Git bash” option in the terminal, then you have to integrate it with the VScode. See any YouTube tutorials.**

**Command Line**

**Show current location – pwd**

**Show list of all folders and files – ls**

**Change directory [moves one folder to another] - cd**

**Create folder – mkdir “Folder Name”**

**Create File – touch “FIleName.extension”**

**Go back – cd ..**

**Remove File – rm FileName**

**Remove Folder – rm - rf FolderName**

**Clear screen – clear**

**In order to code any file – code FileName.extension**

**Run python program in windows – python FileName.py**

**Rename File – mv oldName.ex NewName.ex**

**Move a File to another Folder – mv filename.ex ./FolderName**

**Copy file – cp filename.ex ./FolderName**

**CHAPTER – 01**

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**Print Function**

print("Hello world")

print('Hello world')

print(' Hello "World" ')

print(" Hello 'World' ")

print(" I'm Fine ")

print(' I"am Fine! ')

**Escape sequence**

print(" This is single quote ->       \'        ")

print(" This is double quote ->       \"        ")

print(" This is new line ->           \n            ")

print(" This is TAB      ->           \t            ")

print(" This is backslash ->          \\            ")

print(" This is double backslash ->   \\\\            ")

print(" This is backspace->           \b            ")

print(" This is new line ->           \n            ")

**Comments in python**

#This is a single comment line

#" This is a multiple comment line

# Inside the double qoute"

**Escape sequence as normal text**

print("       \\\'     ") #will print as ->  \'

print("       \\\"     ") #will print as ->  \"

print("       \\\n     ") #will print as ->  \n

print("       \\\t     ") #will print as ->  \t

print("       \\\\     ") #will print as ->  \\

print("       \\\b     ") #will print as ->  \b

print("       \\\n     ") #will print as ->  \n

**EXERCISE**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*PRINT THESE FOLLOWING LINES\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**#This is \\ double backslash**

**#These are /\/\/\/\ mountains**

**#He is awesome [use escape sequence]**

**# \” \n \t \’ [Print this as an output]**

**ANSWER**

print("This is \\\\ double backslash")

print("These are /\\/\\/\\/\\/\\ mountains")

print("He is\tawesome")

print("\\\" \\\n \\\t \\\' ")

**OR**

print("This is \\\\ double backslash\nThese are /\\/\\/\\/\\/\\ mountains\nHe is\tawesome\n\\\" \\\n \\\t \\\'")

**Raw Strings**

print(r"       \\\'     ") #will print as ->  \\\'

print(r"       \\\"     ") #will print as ->  \\\"

print(r"       \\\n     ") #will print as ->  \\\n

print(r"       \\\t     ") #will print as ->  \\\t

print(r"       \\\\     ") #will print as ->  \\\\

print(r"       \\\b     ") #will print as ->  \\\b

print(r"       \\\n     ") #will print as ->  \\\n

**Print Emoji**

#\U+1F602

print("\U0001F602") #use 000 instead of +