**Python Course Contents**

**Python:**

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| * Overview |
| * Uses |
| * Advantages |

**Installation:**

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| --- |
| * Getting Started |
| * Installing Python3 * Python interpreter |

**Basic Python programming**

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| * Python interpreter |
| * A first program |
| * Printing |
| * Getting input |
| * Variables |
| * Running from file |
| * Exercises |

**Conditional Statement**

* Simple if statement
* If & else statement
* If,elif & else statement
* Nested if else
* Ternary Operator
* Pass statement
* Exercises

**Loops:**

* For loop
* Range function
* Loop variable
* While loop
* Break statement
* Continue statement
* Exercises

**Numbers:**

* Integers and Decimal Numbers
* Math Operators
* Order of operations
* Math functions
* Exercises

**Strings:**

* Basics
* Concatenation and repetition
* The in operator
* Indexing
* Slices
* String methods

**Lists:**

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| * Basics |
| * Similarities to strings |
| * Built-in functions |
| * List comprehensions |
| * Two-dimensional lists |
| * Exercises |

**Dictionaries:**

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| * Basics |
| * Dictionary methods |
| * Dict comprehensions |
| * Exercises |

**File Operation:**

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| * Reading from files |
| * Writing to files |
| * Creating folder |
| * Reading all files |
| * Exercises |

**Functions:**

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| --- |
| * Basics |
| * Arguments |
| * Returning values |
| * Default arguments and keyword arguments |
| * Named Arguments |
| * Local variables |
| * Exercises |

**OPPS:**

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| * Creating classes |
| * Constructor |
| * Private member |
| * Instance vs class variable |
| * Inheritance |
| * Exercises |

**Exceptions:**

* Try/except
* Try/except/else
* try/ except /finally
* Exercises

**Miscellaneous Topics:**

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| * Tuples |
| * Sets |
| * Lambda function |
| * map, filter, reduce |
| * enumerate and zip |
| * Generator |
| * Wrapper Function |
| * Higher order function |
| * Exercises |

**Virtaul Environment:**

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| * virtual environment |
| * multiple virtual environment |
| * package installation |
| * export packages |

**Pycharm:**

* Creating projects
* creating module & packages
* Creating Virtual environment

**Rest Api:**

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| * Flask framework |
| * API Building * Get/Post request * Json response |
| * sqlite database |
| * sqlalchemy connector |

**Mini Project(Restful API):**

* Flask
* Postman
* Database operation
* Deployment on AWS lightsail