

## Junior Software Engineer Training Module - Batch 2022

S.NO	Days	Date & Time	Topics	Trainer Name
1	1	09 March 2022	Overview	Mr. Ashish Gavshinde
1.1			Why do we need Python?	
1.2			Structure	
2		10 March 2022	Environment Setup	
2.1	1			
2.2			Execution Types	
2.3			What is an interpreter?	
2.4			Interpreters vs Compilers	
2.5			Using the Python Interpreter	
2.6	1	11 March 2022	Interactive Mode	
2.7			Running python files	
2.8			Working with Python shell	
2.9	1	14 March 2022	Integrated Development Environments (IDES)	
2.1			Interactive Mode Programming	
2.11			Script Mode Programming	
3		15 March 2022	Basic Operators in Python	
3.1	1		Types of Operator	
3.2			Python Arithmetic Operators	
3.3			Python Comparison Operators	
3.4	1	16 March 2022	Python Assignment Operators	
3.5			Python Bitwise Operators	
3.6			Python Logical Operators	
3.7	1	17 March 2022	Python Membership Operators (in, not in)	
3.8			Python Identity Operators (is, is not)	
3.9			Python Operators Precedence	
4		18 March 2022	Basic Concepts	
4.1	1		Data Types	
4.2			Variables	
4.3			Assigning Values to Variables	
4.5	1	21 March 2022	Multiple Assignment	
4.6			Python Numbers	
4.7			Python Strings	
4.8	1	23 March 2022	Accessing Values in Strings	
4.9			String Special Operators	
4.1			String Formatting Operator	

4.11	1	24 March 2022	Triple Quotes
4.12			Built-in String Operations
4.13			Python Lists
4.14	1	25 March 2022	Accessing Values in Lists
4.15			Updating Lists
4.16			Delete List Elements
4.17	1	28 March 2022	Basic List Operations
4.18			Indexing, Slicing, and Matrixes
4.19			Built-in List Functions & Methods
4.2	1	29 March 2022	Python Tuples
4.21			Accessing Values in Tuples
4.22			Updating Tuples
4.23	1	30 March 2022	Delete Tuple Elements
4.24			Basic Tuples Operations
4.25			Indexing, Slicing, and Matrixes
4.26	1	31 March 2022	No Enclosing Delimiters
4.27			Built-in Tuple Functions
4.28			Python Dictionary
4.29	1	01 April 2022	Accessing Values in Dictionary
4.3			Updating Dictionary
4.31			Delete Dictionary Elements
4.32	1	04 April 2022	Properties of Dictionary Keys
4.33			Built-in Dictionary Functions & Methods
<b>5</b>			<b>Loops and Decision Making</b>
5.1	1	05 April 2022	if statements
5.2			..else statements
5.3			nested if statements
5.4	1	06 April 2022	while loop
5.5			for loop
5.6			nested loops
5.7	1	07 April 2022	Loop Control Statements
5.8			Break Statement
5.9			Continue statement
5.1			Pass Statement
<b>6</b>		11 April 2022	<b>Functions</b>
6.1	1		Defining a Function
6.2			Syntax
6.3			Calling a Function
6.4	1	12 April 2022	Pass by reference vs value
6.5			Function Arguments
6.6			Required arguments

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6.7	1	<b>13 April 2022</b>	Keyword arguments
6.8			Default arguments
6.9			Variable-length arguments
6.1	1	<b>14 April 2022</b>	The return Statement
6.11			Scope of Variables
<b>7</b>		<b>15 April 2022</b>	<b>Global vs. Local variables</b>
7.1	1		Built-in module and functions
7.2			Os module
7.3			mkdir()
7.4	1	<b>18 April 2022</b>	chdir()
7.5			getcwd()
7.6			rmdir()
7.7	1	<b>19 April 2022</b>	listdir()
7.8			Math module and functions
7.9			Constants
7.1	1	<b>20 April 2022</b>	Trigonometry
7.11			Logarithmic
7.12			Representation
7.13	1	<b>21 April 2022</b>	Random module and functions
7.14			random()
7.15			randint()
7.16	1	<b>22 April 2022</b>	randrange()
7.17			choice ()
7.18			shuffle ()
<b>8</b>		<b>25 April 2022</b>	<b>Python Modules and Packages</b>
8.1	1		Framework vs Packages
8.2			Folium Introduction
8.3			Why are modules used?
8.4	1	<b>26 April 2022</b>	Creating modules
8.5			The import Statement
8.6			The from...import Statement
8.7	1	<b>27 April 2022</b>	The from...import * Statement
8.8			Locating Modules
8.9			The PYTHONPATH Variable
8.1	1	<b>28 April 2022</b>	Namespaces and Scoping
8.11			The dir() Function
8.12			The globals() and locals() Functions
8.13	1	<b>29 April 2022</b>	The reload() Function
8.14			Packages in Python
8.15			Constructing user defined packages
8.16			Importing user defined packages

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<b>9</b>		<b>02 May 2022</b>	<b>Basic OOPs Concept</b>
9.1	1		Creating class in Python
9.2			Private Identifier
9.3			Constructor
9.4	1	<b>03 May 2022</b>	Inheritance
9.5			Polymorphism
9.6			Decorator, Iterator and Generator
<b>10</b>			<b>Anonymous Function</b>
10.1	1	<b>04 May 2022</b>	Lambda
10.2			Map
10.3			Filter
10.4			Reduce
<b>11</b>			<b>File Manipulation</b>
11.1	1	<b>05 May 2022</b>	Opening Text File
11.2			Working with a File on Python
11.3			The open function
11.4	1	<b>06 May 2022</b>	File modes
11.5			The file object attributes
11.6			close() method
11.7	1	<b>09 May 2022</b>	write() method
11.8			read() method
11.9			Files: Input
11.1	1	<b>10 May 2022</b>	Files: Output
11.11			Reading files
11.12			Renaming & deleting files
11.13	1	<b>11 May 2022</b>	Writing into a file
11.14			remove() method
<b>12</b>			<b>Python GUI</b>
12.1	1	<b>12 May 2022</b>	Basic Operations using Tkinter
12.2			Buttons and Textbox
12.3			Menu Bar
12.4	1	<b>13 May 2022</b>	Message Box and Radio Button
12.5			Checkbox and Event Creating
12.6			Creating Application in GUI
<b>13</b>			<b>SQL and Python</b>
13.1	1	<b>16 May 2022</b>	Overview of SQLite
13.2			Integrating Python with SQLite
<b>14</b>			<b>Other Concepts</b>

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14.1	1	<b>17 May 2022</b>	Errors and Exception Handling
14.2			Standard exceptions
14.3			Assertions in Python
14.4	1	<b>18 May 2022</b>	The assert Statement
14.5			What is Exception?
14.6			Handling an exception
14.7	1	<b>19 May 2022</b>	Syntax
14.8			The except Clause with No Exceptions
14.9			The except Clause with Multiple Exceptions
14.1	1	<b>20 May 2022</b>	The try-finally Clause
14.11			Argument of an Exception
14.12			Example with Tkinter Application
14.13			Regular Expression
<b>15</b>			<b>Advanced Concept – Overviews</b>
15.1	1	<b>23 May 2022</b>	Basics of Pandas and Numpy
15.2			How to use Anaconda
15.3			How to create dashboard

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