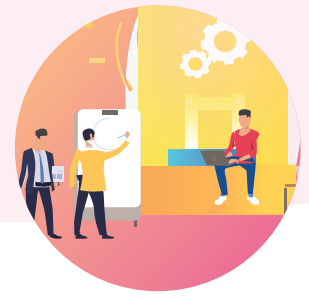
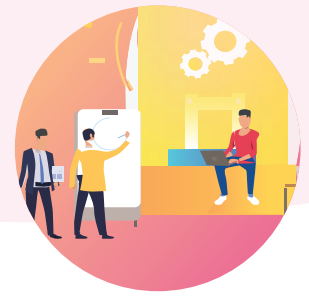


ADVANCE PYTHON PROGRAMMING

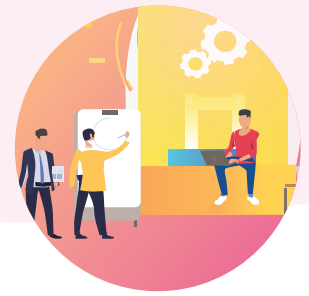
SESSION	CONCEPT	SKILLS
01	Output, Variables And Input - Part 1	Sequencing, Exploration Introduction to Python and text based programming. Play with simple command line functions and create a simple chat-bot that prints your bio.
02	Output, Variables And Input - Part 2	Sequencing, Exploration Introduction to Python and text based programming. Play with simple command line functions and create a simple chat-bot that prints your bio.
03	Data Types - Part 1	Numeracy, Logic Use Python Dictionaries and basic datatypes and create a madlab project.
04	Data Types - Part 2	Numeracy, Logic Use Python Dictionaries and basic datatypes and create a madlab project.
05	Operators In Python - Part 1	Logic, Generalization Explore kinds of operations in Python to create multiple projects such as "Life in Weeks", etc.
06	Operators In Python - Part 2	Logic, Generalization Explore kinds of operations in Python to create multiple projects such as "Life in Weeks", etc.
07	Conditional Flow - Part 1	Abstraction, Logic, Decision Making Learn about conditionals and write a code to create multiple projects such as B.M.I. 2.0, Pizza ordering system, etc.



08	Conditional Flow - Part 2	Abstraction, Logic, Decision Making Learn about conditionals and write a code to create multiple projects such as B.M.I. 2.0, Pizza ordering system, etc.
09	Assessment- I	Assessment Of Learning
10	Lists In Python - Part 1	Decomposition, Problem Solving Lists. Indexing and using list & assignment for several practice activities.
11	Lists In Python - Part 2	Decomposition, Problem Solving Lists. Indexing and using list & assignment for several practice activities.
12	Lists In Python - Part 3	Decomposition, Problem Solving Lists. Indexing and using list & assignment for several practice activities.
13	Random Module	Step-wise Thinking, Numeracy Write simple algorithms for number manipulations, generate random numbers, Write a code to create simple dice simulator
14	Practice Challenges	Decomposition, Problem Solving Project Activities
15	Introduction To Loops - Part 1	Pattern recognition , Step-Wise thinking , Logic, Generalization Understanding loops, using for loops for several practice activities and project building such as fizz buzz challenge, password generator, etc
16	Introduction To Loops - Part 2	Pattern Recognition , Step-Wise Thinking , Logic, Generalization Understanding loops, using for loops for several practice activities and project building such as fizz buzz challenge, password generator, etc.



17	Introduction To Loops - Part 3	<p>Pattern recognition , Step-Wise Thinking , Logic, Generalization</p> <p>Understanding loops, using for loops for several practice activities and project building such as fizz buzz challenge, password generator, etc</p>
18	Nested Loops	<p>Pattern Abstraction, Decomposition</p> <p>Write a code to create a program for simple digital stopclock - Project</p>
19	While Loops - Part 1	<p>Pattern Recognition</p> <p>Understanding while loops and use while loop for several practice activity and create a program for Hailstone Numbers - Project</p>
20	While Loops - Part 2	<p>Pattern Recognition</p> <p>Understanding while loops and use while loop for several practice activities and create a program for Hailstone Numbers - Project</p>
21	Game Design Project Part 1A	<p>Step-Wise Thinking, Creativity, Application Of Learning</p> <p>Create an Interactive Game - Rock, Paper & Scissor , Turtle Race using the concepts learned.</p>
22	Game Design Project Part 1B	<p>Step-Wise Thinking, Creativity, Application Of Learning</p> <p>Create an Interactive Game - Rock, Paper & Scissor , Turtle Race using the concepts learned.</p>
23	Defining & Calling Functions In Python - Part 1	<p>Abstraction, Pattern Recognition</p> <p>Learn about functions, need, use, real life examples and create functions using code, defining & calling fuction with parameter for several practice activities and create a program for multiple projects such as building a calculator and import own module.</p>



24	Defining & Calling Functions In Python - Part 2	<p>Abstraction, Pattern Recognition</p> <p>Learn about functions, need, use, real life examples and create functions using code, defining & calling fuction with parameter for several practice activity and create a program for multiple projects such as building a calculator and import own module</p>
25	Defining & Calling Functions In Python - Part 3	<p>Abstraction, Pattern Recognition</p> <p>Learn about functions, need, use, real life examples and create functions using code, defining & calling fuction with parameter for several practice activity and create a program for multiple projects such as building a calculator and import own module</p>
26	Events	<p>Logic, Abstraction</p> <p>Write code to control the turtle using key events.</p>
27	Game Design Project Part 2A	<p>Step-wise Thinking, Creativity, Logic</p> <p>Create an Interactive Game , Write a code to build Game setup & Game logic</p>
28	Game Design Project Part 2B	<p>Step-wise Thinking, Creativity, Logic, Problem Solving, Perseverance</p> <p>Create an Interactive Game , Write a code to build Game setup & Game logic</p>
29	Game Design Project Part 3A	<p>Step-wise Thinking, Creativity, Logic, Problem Solving, Perseverance</p> <p>Create an Interactive Game , Write a code to build Game setup & Game logic</p>
30	Game Design Project Part 3B	<p>Step-wise Thinking, Creativity, Logic, Problem Solving, Perseverance, Presentation</p> <p>Create an Interactive Game , Write a code to build Game setup & Game logic</p>