



**Course Outcomes & CO-PO-PSO Mapping and Justification**

<b>Subject</b>	<b>Application Development using Python</b>	<b>18CS55</b>
<b>COURSE OUTCOMES:</b>		
<b>CO No.</b>	<b>On completion of this course, students will be able to:</b>	<b>Cognitive Level</b>
18CS55.1	Understand Python syntax and semantics and be fluent in the use of Python flow control and Functions	L2
18CS55.2	Develop, run and manipulate Python programs using Core data structures like Lists, Dictionaries, and use of Strings Handling methods.	L3
18CS55.3	Develop, run and manipulate Python programs using File Operations and searching pattern using regular expressions.	L3
18CS55.4	Interpret the concepts of object oriented programming using Python	L2
18CS55.5	Determine the need for scraping websites and working with CSV, JSON and other file formats..	L2

**CO-PO-PSO MAPPING**

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
18CS55.1	3	2	3	-	2	-	-	-	-	-	-	2	3	-	-
18CS55.2	3	3	3	-	2	-	-	-	-	-	-	2	3	-	-
18CS55.3	3	3	3	-	2	-	-	-	-	-	-	2	3	-	-
18CS55.4	3	2	2	-	2	-	-	-	-	-	-	2	3	-	-
18CS55.5	3	3	3	-	3	-	-	-	-	-	-	2	3	-	-
<b>Avg. Mapping</b>	<b>2.0</b>	<b>2.6</b>	<b>2.8</b>	<b>-</b>	<b>2.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.0</b>	<b>3.0</b>	<b>-</b>	<b>-</b>

**CO-PO-PSO JUSTIFICATION**

<b>CO No.</b>	<b>PO/PSO</b>	<b>CL</b>	<b>Justification</b>
18CS55.1	PO1	3	Strongly mapped as students gain the knowledge on Python syntax and semantics and be fluent in the use of Python flow control in writing the programs
	PO2	2	Moderately mapped as only few students identify their own problem by conducting literature review for writing programs.
	PO3	2	Strongly mapped as designing and implementation is required to write the program for the given problem statement.
	PO5	2	Moderately mapped as students learn modern IDE tools to execute python programs / applications ( Python IDLE / Anaconda with spyder IDE).
	PO12	2	Moderately mapped as students apply the concepts learnt in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students understand fundamentals of Python syntax and semantics and fluent in the use of concepts in writing the programs to build application.
18CS55.2	PO1	2	Strongly mapped as the students need the knowledge of python syntax and semantics related to List, Dictionaries, Strings to apply them in building applications which needs python programming constructs
	PO2	3	Strongly mapped as problem analysis is necessary for solving /developing any application using appropriate python programming construct such as List, Dictionaries, Strings.
	PO3	3	Strongly mapped as the process of design and implementation has to be followed while applying the concepts.
	PO5	2	Moderately mapped as students learn modern IDE tools to execute python programs / applications (Python IDLE / Anaconda with spyder IDE).
	PO12	2	Moderately mapped as students apply the concepts learnt in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students understand fundamentals of Python syntax and semantics and fluent in the use of concepts in writing the programs to build application.
18CS55.3	PO1	3	Strongly mapped as the students need the knowledge of regular Expressions in searching for pattern and File Handling operations to build applications.
	PO2	3	Strongly mapped as problem analysis is necessary for solving /developing any application using regular Expressions and File Handling operations.

	PO3	3	Strongly mapped as the process of design and implementation has to be followed while applying the concepts.
	PO5	2	Moderately mapped as students learn modern IDE tools to execute python programs / applications (Python IDLE / Anaconda with spyder IDE).
	PO12	3	Moderately mapped as students apply the concepts learnt in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students understand fundamentals of regular Expressions and File handling operations and fluent in the use of concepts in building application.
18CS55.4	PO1	2	Strongly mapped as the students need the knowledge of object oriented concepts in python syntax and semantics and apply them in developing applications
	PO2	2	Moderately mapped to problem analysis as the moderate number of students can use the concepts of object oriented programming in finding the solutions to the problem.
	PO3	2	Moderately mapped to design and development as the moderate number of students use python in building the applications
	PO5	2	Moderately mapped as students learn modern IDE tools to execute python programs / applications (Python IDLE / Anaconda with spyder IDE).
	PO12	3	Moderately mapped as students apply the concepts learnt in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students understand fundamentals of Python syntax and semantics, object oriented concepts and fluent in the use of concepts in developing / build application.
18CS55.5	PO1	3	Strongly mapped as the students should have the complete basic knowledge of the Python APIs related to web scraping and working with CSV, PDF and JSON File Formats.
	PO2	3	Strongly mapped as the students need to perform the complete problem analysis while applying in web scraping, working with CSV, PDF and JSON File Formats.
	PO3	3	Strongly mapped as all students design and develop the applications using BeautifulSoup and Working with CSV, PDF and JSON File Formats.
	PO5	3	Strongly mapped as students learn modern IDE tools to build and execute python applications( Anaconda with spyder IDE)
	PO12	3	Strongly mapped as students apply the concepts learnt in continuing professional development and new product developments.

	PSO1	3	Strongly mapped as students understand fundamentals of Web Scraping and working with CSV, PDF and JSON File Formats in developing / build application.
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**Prepared by:**

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