APPWARS TECHNOLOGIES
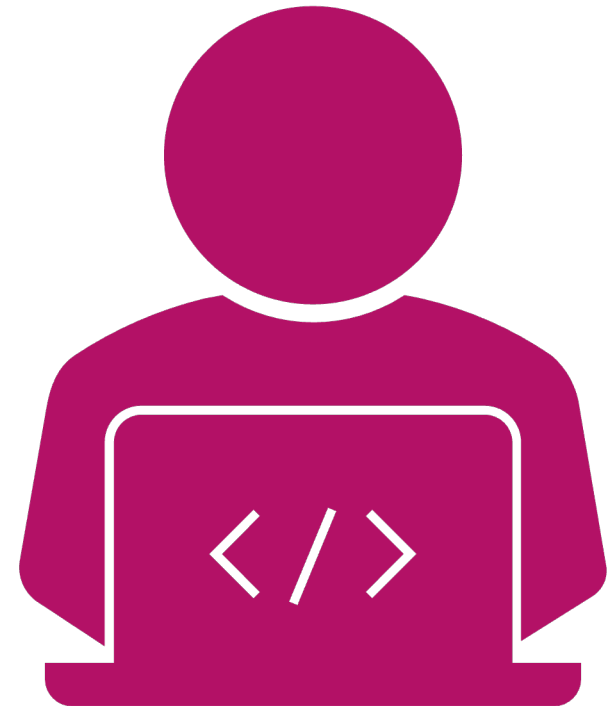T E C H N O L O G I E S
Training | Development | Consultancy

(A Ministry of MSME, Govt. of INDIA
Approved Enterprise)

PYTHON COURSE CONTENT 6 WEEKS

APPWARS TECHNOLOGIES PVT LTD

PYTHON PROGRAMMING OVERVIEW

▶ In this course, participants will learn to write reusable scripts with Python. Through intensive exercises, participants learn to use Python in your operating system and application environments as well as apply built- in functions of the language and make use of external modules.

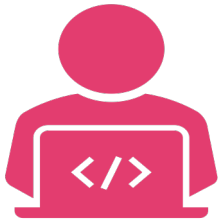# LESSON 1: PYTHON INTRODUCTION

Python: An Overview

Python : History, Version & Features

Execution of Programs

Python Comments

LESSON 2: Python Variables & Data Types

Python Variable

What is Variable?

How to Assign Variable

Python Data Types

Numeric Data Types

Boolean Data Types

Compound Data Types

Dictionaries, Sets & Arrays

LESSON 3: Python Operators

► **OPERATOR TYPES-PYTHON**

✓ Arithmetic Operators

✓ Assignment Operators

✓ Local/Boolean Operators

✓ Identity Operators

✓ Membership Operators

✓ Bit Wise Operators

✓ Operators Precedence & Associativity

✓ Precedence of Operators

✓ Associativity of Operators

LESSON 4: Python Conditional Statements

STATMENTS:

- The If Statements
- The if-else Statements
- The Elif Statements
- The Nested If – Else Statements

PYTHON CONTROL STATMENTS:

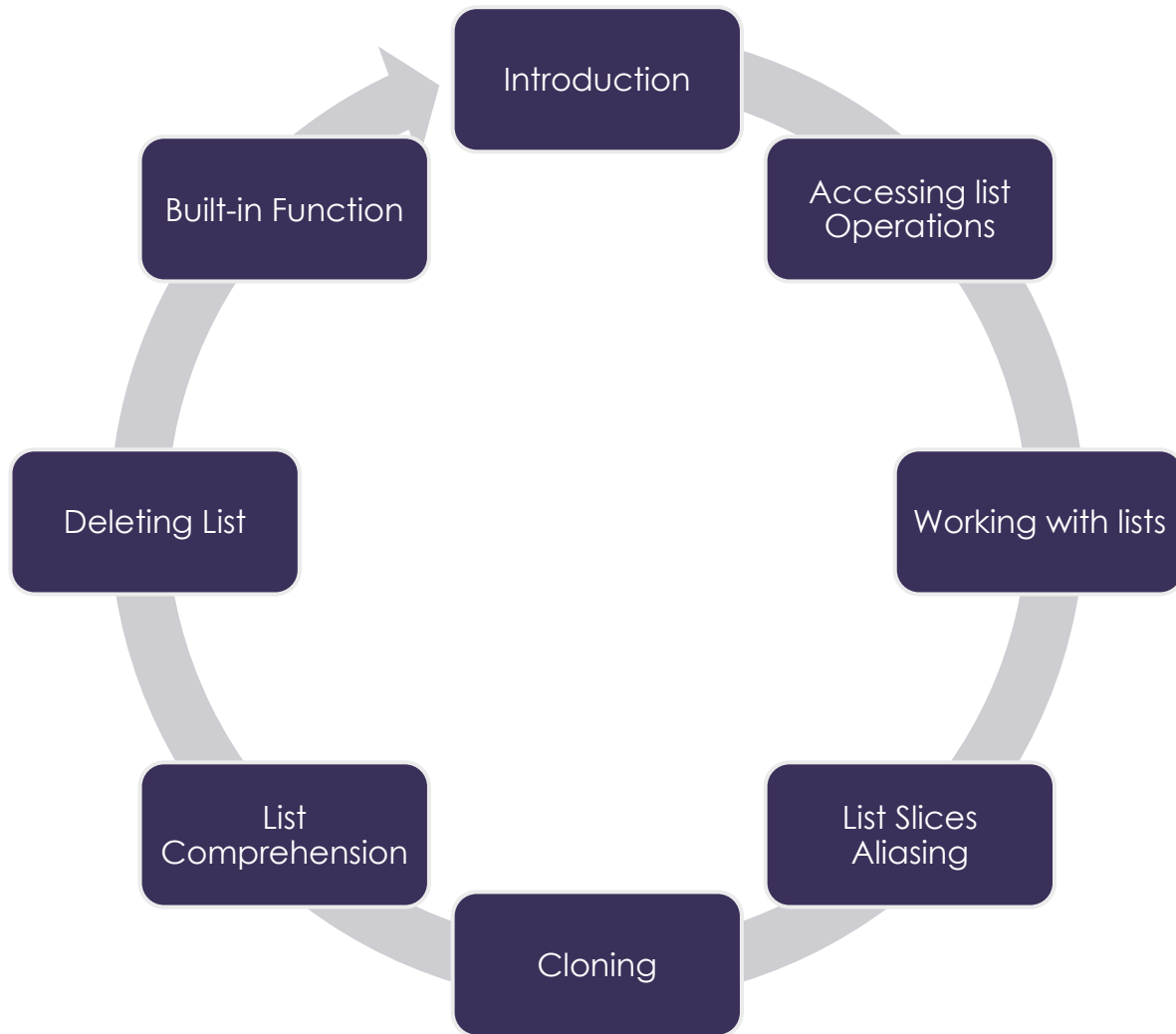- The Break Statements
- The Continue Statements
- The Pass Statements

LESSON 5: PYTHON- NUMBERS & STRINGS

▶ **PYTHON NUMBER**

- ✓ Mathematical Function
- ✓ Random Function
- ✓ Trigonometric Function

▶ **PYTHON STRINGS**

- ✓ Accessing Strings
- ✓ Basic Operations
- ✓ String Slices
- ✓ String- Built In Function

Introduction

Accessing list Operations

Working with lists

List Slices Aliasing

Cloning

List Comprehension

Deleting List

Built-in Function

LESSON 6: PYTHON LISTS

Introduction

Creating Tuple

Accessing Tuple

Modifying Tuple

Deleting Tuple

Built-in Function

LESSON 7: PYTHON TUPLE

LESSON 8: PYTHON DISCTIONARY & SETS

▶ **Python Dictionary Introduction**

  ✓ Creating Dictionary

  ✓ Accessing Dictionary

  ✓ Deleting Dictionary

  ✓ Built-In Function

▶ **Python Sets Introduction**

  ✓ Declaring a Sets

  ✓ Operation on Sets

  ✓ Built-In Function

LESSON 9: PYTHON FUNCTIONS

📅 **Python Date & Time**

The Time Module

The Calendar Module

🖥 **Python Function**

📄 Defining a function

🎧 Calling a function

✔️ **Types of functions**

📋 Fu Anonymous functions

🌎 Global and local variables

LESSON 10: PYTHON FILE HANDLING

▶ **File Handling (Input / Output) Introduction**

✓ Opening & Closing Files

✓ Reading & Writing Files

✓ Rename & Remove Files

✓ The Directories

LESSON 11: PYHTON EXCEPTION HANDLING

Exception Handling

- Error in Python Program
- Syntax error
- Exception

Types of Exception

- Handling Exception in Python
- Raising Exception
- User Defined Exception

LESSON 12: PYTHON OOP'S CONCEPT

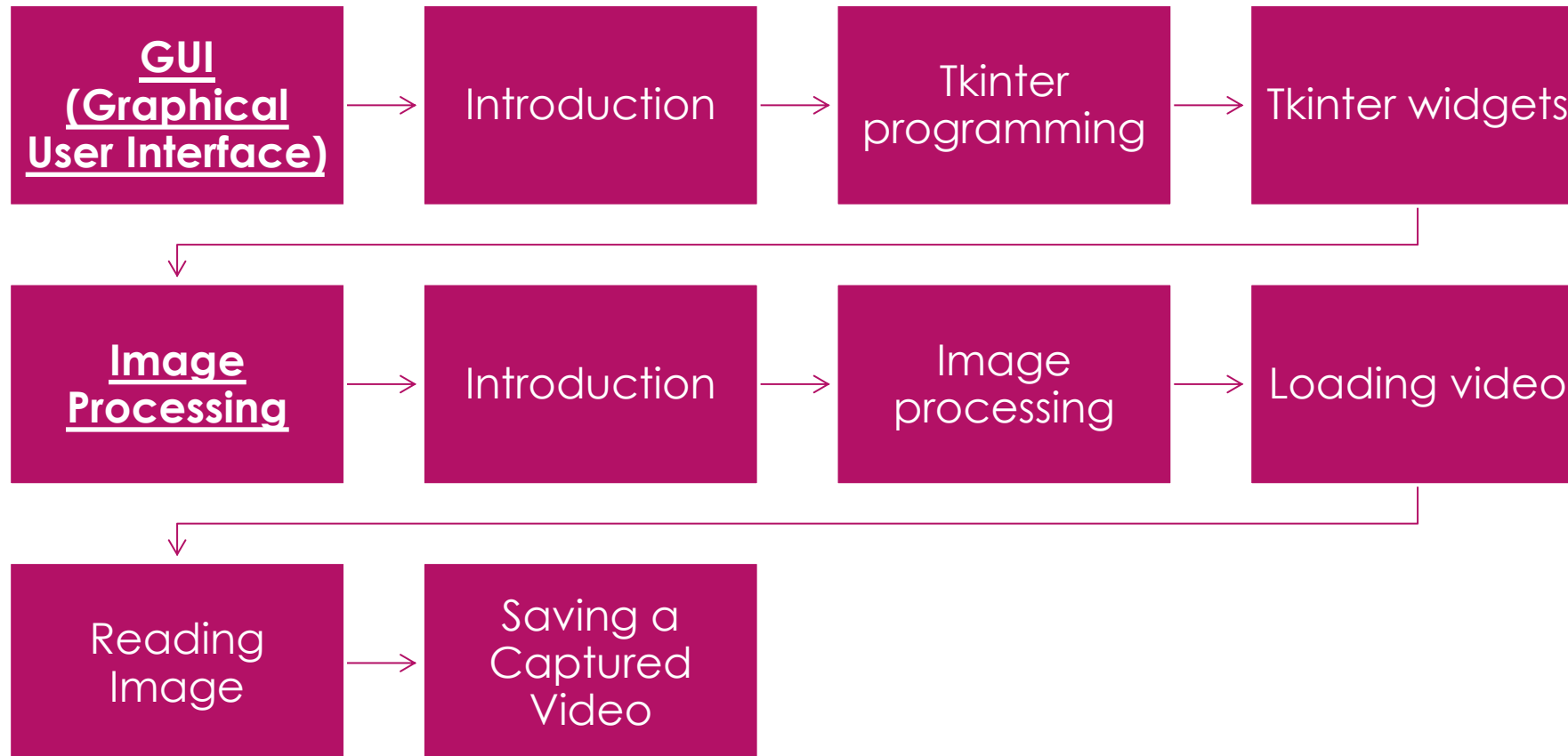|		
Class and object	Attributes	Inheritance
Overloading	Overriding	Interface & Abstraction

LESSON 13: PYTHON MULTITHREADING

Multithreading

Thread

Starting a Thread

Threading Module

Synchronizing Threads

Multithreaded Priority Queue

LESSON 14: GUI & IMAGE PROCESSING

GUI (Graphical User Interface) → Introduction → Tkinter programming → Tkinter widgets

Image Processing → Introduction → Image processing → Loading video

Reading Image → Saving a Captured Video

PROJECTS

- Calculator
- Number Guessing
- Text-Based Adventure Game
- Dice Rolling Simulator
- Boolean
- Find Fibonacci
- All Types Pattern
- Armstrong
- Factorial of Given Number User Input
- Rate of Interest
- Management System
- Basic Programming Code All In Python