

# Explore Learn \*\*\* Create

AI & Coding4AI
For Grades 4 to 10



# Group A – Grade 4,5,6

## Week 1

- Introduction to Al
- Machine Learning Basics
- Types of Machine Learning: Supervised vs. Unsupervised
- Pattern Recognition: How does AI use patterns to identify faces, spam emails, or even health conditions?
- AI in Self Driving Cars
- Project: Build Your Own Image Recognition Model

## Week 2

- What is Generative AI?
- Al Art & Images Using Midjourney
- Al Music & Audio
- Al Video Generation
- How Midjourney Works?
- Project: Create a short movie using multi model GenAl Tools

# Week 3

- What is NLP?
- What is a prompt? Why does wording matter?
- How ChatGPT Works
- Project: Build a Chatbot

## Week 4

- Improve Academics with AI Tools
- Project: Build No Code App Powered by Generative Al

- What is Python? Print your first message
- Variables & Data Types
- Simple Math with Python
- Strings & Text Fun
- Project Day: My Python ID Card

# Week 6

- If-Else Statements
- Comparison Operators
- Nested If & Else
- Input from User
- Project: Build a Mini Quiz

# ✓ Week 7

- While Loops
- For Loops
- Lists
- Loops with Lists
- Project: Fruit Basket Game

- Functions Basics
- Functions with Parameters
- Combine All: Input + Condition + Loop + Function
- Final Project Idea: "My First Smart Assistant"



# Group B - Grade 7,8,9,10

## Week 1

- Introduction to AI, intro to AI platforms such as Chat GPT and NotebookLM
- Understanding Data: why its needed, how its gathered, World of Big Data. Basics of Al in working - Data, Patterns and Algorithm
- Machine Learning What it is, Types of ML. (Supervised, Unsupervised, Reinforcement)
- Applications of AI around the Industries, AI Self Driving Cars, Pattern Recognition - Spam mails, Netflix
- Project: Building a Supervised MI Model.

#### Week 2

- What is GenAl, How is Gen Al different from the Traditional Al?
- How is GenAl Built, Al Art & Images Using Midjourney
- Al Music & Audio
- Al Video Generation, How Al can make voices that sound like real people
- How Midjourney Works?
- Project: Create a short movie using multi model GenAl Tools

#### Week 3

- What is NLP?Text Processing and preprocessing;Syntax and Parsing; Semantic analysis
- What is a prompt? Why does wording matter?
- How ChatGPT Works, What are transformers?
- Project: Build a Chatbot

## Week 4

- Improve Academics with AI Tools
- Project: Building an Al website

- What is Python , Why python First code : Variables
- Data Types: List, touples and sets, Operators
- if else Statment , Match , For and While
- Sample Problems : Simple math with Python and condition problems
- Project: Number Guessing Game ,Todo List Manager

# Week 6

- Loops For , While Loops
- Input from users : Small problems
- Functions
- Combine all input: Loops, if-else, functions
- Project: Build Quiz App

## ✓ Week 7

- Python Classes and Objects
- Python Oops Concepts intro
- Inheritance and polymorphism
- Project: Fruit Basket Game

- Algorithms Basic algorithms
- Algorithms complex Algorithms
- Problem Solving
- Final Project: "My First Smart Assistant"

