Artificial Intelligence

Technology	Duration	Project Base
Artificial Intelligence	2 Days	Software

Python

- Introduction to Python
- Different type of Python IDE
- Why Python
- Installation of Python
- Application of Python
- Different types of python Libraries

Expression and Operators

- Python Syntax
- Including Comments , Indentation
- Python Variables
- Operators & Python Keywords

Basic Practical with Python Concept
- How to write program with python
- How to create tables
- Swapping two numbers
- Randonumbers
- How to find leap year
- How to create Calculator

Environment (IDE) and Software

- Introduction to IDE
- Use of IDE
- Introduction to python IDE
- Introduction to Anaconda
- Introduction to Jupiter Notebook
- Introduction to Octave

Important points in Python

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- Data Types
- Variables
- Data Flow Control
- Functions in python

Flow of Algorithms

- Fundamental concepts in genetic algorithms
- Use of IDE
- How IDE works?
- How data, code Conversion Takes place

Python for Data Science and AI:
- Lists and Tuples
- Sets
- Dictionaries
- Loops
- Functions
- Objects and Classes

Machine Learning

- Introduction to Machine Learning
- Supervised Learning Introduction & Examples
- Unsupervised Learning Introduction & Examples
- Machine Learning Algorithms

Regression
- Linear Regression Theory
- Model selection
- Logistic Regression Theory

Introduction of Anaconda

- Anaconda
- Why anaconda
- Application of anaconda
- About Jupyter notebook
- Practicing python in Anaconda
- Performing data analysis
- Advantage to Anaconda

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Introduction of Opencv

- OpenCV
- Why Opencv
- Use and application
- Installation and use
- Workflow

Introduction to Data Science

- What is Data Science
- Applications of Data Science
- Introduction to Data Mining

Introduction Advance level Data Learning Techniques

- Types of Learning
- Supervised Learning
- Unsupervised Learning
- Machine Learning System Design
- Applications of Data Learning

Introduction About Libraries

- Pandas
- Numpy
- Sklearn
- Turtle
- Tensorflow
- Matplotlib
- OpenCV

Practicals:

GUI With Libraries

- PySimpleGUI
- PySimpleGUIQt
- Tkinter
- Butoon
- Canvas
- Check Button
- Entry
- Frame
- Label
- List Box
- Menu Button
- Menu
- Message
- Radio Button
- Scale
- Scroll bar
- Text
- Top level
- Spin box
- Panned Window

Image Processing
- Designing Face recognition
  - ✓ Working of detector
  - ✓ About OpenCV and its Working
  - ✓ Understanding the Algorithm
  - ✓ Implementing the Algorithm
  - ✓ Image conversion.
  - ✓ Testing (error , Accuracy) of Model

Project with turtle library

- Graphics Designing

Object and Motion detection with GUI
Latin to Devanagiri text Convertor
Face Detection with Cam
Data Analytics
Covid19 Analysis on world map
GUI Calci based on AI

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