**Stage 0: Orientation days (1)**

* What it AI?
* What is future going to be like?
* Some Demos and interesting videos on it.
* Object detection
* Segmentation
* Classification
* Generative models
* Chatgpt
* Dall-e
* stable-diffusion
* Our Goal and Expectations from Students.
* Working plan.
* Work Ethics
* Practise sessions
* Evaluations
* Professional Grooming

**Stage 1: Introduction with the Tools days (3 to 4)**

* Introduction to Chat Gpt and Interaction with it.
* Introduction to Dall-E  and interaction with it.
* Introduction to Stable Diffusion and interaction with it
* Guideline about prompting.
* At the initial stage the students should interact with Open.ai tools like Chat GPT and DALL-E-2. This will greatly develop their interest and help them understand the products better. From this they will also learn the prompting which will help them later.

**Stage 2: Basics of python days (20 to 30)**

* Installing the IDE and Making Environments
* Basic Variables
* Data types
* String manipulation
* List
* Loops
* Tuples
* Dictionary
* JSON
* Functions
* Built in
* Custom
* Classes in python
* Declaration
* Initialization
* Code practise with Chat GPT
* Stage Evaluation

**Stage 3: Basics of ML days (5 to 6)**

* Introduction the Machine Learning
* Supervised Learning
* Video demo
* Semi-supervised Learning
* Video demo
* Un-supervised Learning
* Video demo
* Re-inforcement learning
* Video demo
* Basics of ML Model
* Model
* Dataset
* Types of Data sets (Structured , Unstructured)
* Examples of Datasets
* Data preprocessing
* Data Cleaning (Missing Values and Outliers)
* Dimensionality Reduction
* Data Transformation
* Training process (Theory at this stage)
* Testing process  (Theory at this stage)
* Evaluation Metric
* Loss functions
* Confusion matric
* Accuracy
* Precision
* Recall
* Stage Evaluation

**Stage 4: Basics of API days (10 to 15)**

* Introduction to API
* Basics of API
* Open.ai API
* Stable Diffusion API
* Fast API
* Stage Project 1: (NLP Project)
* Stage Project 2: (Image Generation Project)
* Stage Evaluation

**Stage 5: Basics of ML frame work days (20 to 30)**

* Understanding of Scikit-learn for Machine Learning Models
* Working with Structured Data (ETL Pipeline) Using Scikit-Learn
* Data Cleaning (Missing Values and Outliers)
* Dimensionality Reduction
* Data Transformation
* Concept of classification and regression
* Difference between them and where to use them
* Use case examples
* Creating Classification Models using Scikit-learn
* Evaluating Classification Models
* Creating Regression Models using Scikit-learn
* Evaluating Regression Models
* Creating Recommender System (Content Based and Collaborative Filtering based)
* Stage Project

**Stage 6: Basics of Data Visualisations days (5 to 7)**

* Basic concepts of Matplotlib
* Introduction to Visualisations
* Line plot
* Scatter plot
* Regression plot
* Bar charts
* Distribution plots
* Box plot
* Creating Visualisations using Seaborn
* Creating Visualisations using Plotly
* Stage Evaluation

**Stage 7: Introduction to Hugging Face days (10 to 15)**

* Introduction to Hugging Face
* Installation and Setup
* Text Classification using Pipelines
* Hands on practise
* Name Entity Recognition (NER) with Pipelines
* Hand on practise
* Sentiment Analysis With Pipelines
* Hands on practise
* Stage Evaluation