CSET419- Introduction to Generative AI

Lab – 1

Objective: Students will learn to generate synthetic data using a simple generative method and implement it using Python.

Experiment 1: Implement a Simple Generative Algorithm for Data Generation

Generative AI models are capable of creating new data samples. In this experiment, students will use a **pre-trained generative model** to generate synthetic data samples and store them for further use.

Instructions:

1. Select any domain for data generation (example: **image data generation**).
2. Choose any **pre-trained generative model** (example: Stable Diffusion / any diffusion model).
3. Provide input prompts (at least 5).
4. Generate synthetic data using the model.
5. Save generated output in a folder/dataset format.
6. Display sample outputs

Output

A synthetic dataset will be generated.