

## Practical No:-10

Title: Implementation of CAN on any suitable Dataset.

## Theory:

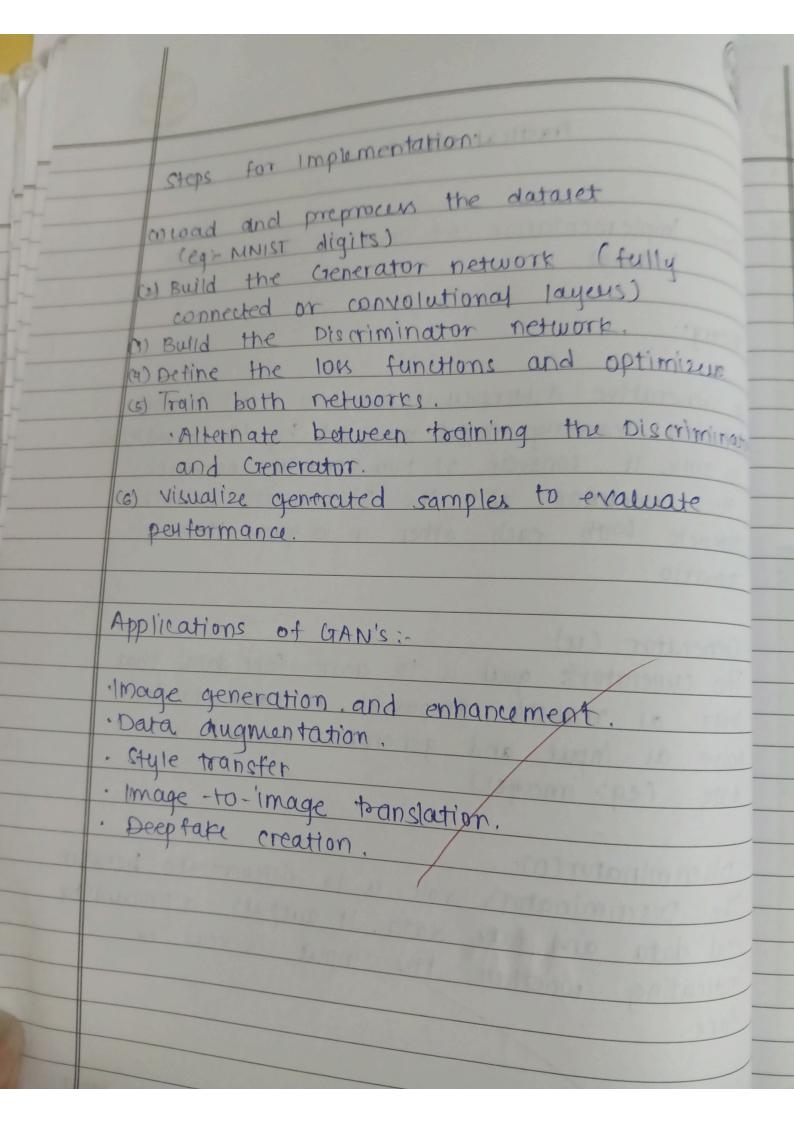
A Generative Adversarial Network (GAN) is a type of deep learning model proposed by lan Goodfellow in 2014. It consists of two neural networks the Generator and the Discriminator, which compete with each other in a game-theoretic scenario.

## · Crenerator (u):

The currentor's goal is to create fake data that looks as realistic as possible. It takks random noise as input and generates synthetic data (eq:-images)

## - Discriminator (D):

The Discriminator's role is to differentiate between real data and fake data. It outputs a probability indicating whether the input is real or fare.





Conclusion:

Crans are powerful tools in unsupervised learning mapable of generating high -quality synthetic data. Through the adversarial training of Crenerator and Discriminator, the model learns to produce data indistinguishable from real data, making it highly whether in Atapplications involving image Synthesis and augmentation.