Format for the Weekly Progress Report

Name of the Student 1	Hetanshi Bhatt
Roll Number of Student 1	22BPC156
Name of the Student 2	Kunal Solanki
Roll Number of Student 2	22BCP131
Project Title	Combating Digital Misinformation: Deepfake Detection Using Deep Neural Networks
Name of the Supervisor (Mentor) at PDEU	Dr. Samir Patel
Week Number	Week 1

Progress made in Week:

This week, we focused on building a strong foundational understanding for my deepfake detection project:

- **Studied Deepfakes and Digital Misinformation:** Explored why deepfake detection is crucial for combating digital misinformation and maintaining trust online.
- **Reviewed a Survey Paper**: Read "Exploring Autonomous Methods for Deepfake Detection: A Detailed Survey on Techniques and Evaluation," which broadened my knowledge about:
  - Key deepfake generation techniques (e.g., face swapping, neural texture synthesis).
  - State-of-the-art detection methodologies, including traditional methods and neural network-based approaches.
  - Challenges and evaluation protocols in the field.
- **Explored Deep Learning Basics:** Revised the fundamentals of neural networks, CNNs, and RNNs/LSTMs for understanding architecture choices in deepfake detection tasks.
- **Researched Public Datasets:** Compared several benchmark datasets used for training detection systems.
- **Chose FaceForensics++ Dataset:** Selected FaceForensics++ as my working dataset due to its comprehensiveness and wide usage in academic research.

Hetanshi Bhatt	Kunal Solanki	Samir Patel
Hetanshi	*Kunal*	
Name and Signature of Student 1	**Name and Signature of Student 2**	**Name and Signature of Supervisor (Mentor)**

BTech Minor Project Policy