

Format for the Weekly Progress Report

Name of the Student 1	Dev Pandya
Roll Number of Student 1	22BCP409
Name of the Student 2 (if any)	Kavya Patel
Roll Number of Student 2 (if any)	22BCP406
Project Title	Smart Energy Consumption Monitoring and Prediction Using Big Data
Name of the Supervisor (Mentor) at PDEU	Dr. Samir Patel
Week Number	Week 10

Progress made in Week 10:

- Conducted model optimization by minimizing model size and improving inference speed to ensure compatibility with the real-time streaming setup.
- Verified model accuracy and response time across multiple test runs to confirm reduced latency.
- Integrated optimized LightGBM models into the existing pipeline for near real-time prediction.
- Configured Zeppelin notebooks to display prediction outputs in tabular format, allowing clear comparison of actual vs. predicted values.
- Implemented functionality to store generated outputs (predicted data tables) as CSV/Parquet files for later analysis and model evaluation.

Dev Pandya

Kavya Patel

Dr. Samir Patel

**Name & Signature of
Student 1**

**Name & Signature of
Student 2**

**Name & Signature of
Supervisor (Mentor)**