DATE	28-02-2026
TEAM ID	LTVIP2026TMIDS89110
PROJECT NAME	plugging into the future: an exploration of electricity consumption patterns using tableau
MAXIMUM MARKS	4 MARKS

Chapter – 5

5.1 - Project Milestones & Tasks

Data Collection

Objective: Gather high-quality, relevant data required for the project.

Tasks:

➢ Identify reliable data sources (databases, APIs, web scraping, surveys, etc.)

➢ Collect structured and unstructured data

➢ Ensure data relevance and completeness

➢ Store data in a centralized database or storage system

➢ Maintain data documentation for reference

Deliverables:

➢ Raw dataset

➢ Data source documentation

➢ Data storage setup

Data Pre-Processing

Objective: Clean and prepare the data for model training and analysis.

Tasks:

➢ Remove duplicates and handle missing values

➢ Handle outliers and inconsistent data

➢ Data normalization or scaling

➢ Feature engineering and selection

- ➢ Encode categorical variables

- ➢ Split dataset into training and testing sets

Deliverables:

- ➢ Cleaned dataset

- ➢ Feature-engineered dataset

- ➢ Preprocessing scripts

Model Building

Objective: Develop and train a machine learning model.

Tasks:

- ➢ Select appropriate algorithm(s)

- ➢ Train model using training dataset

- ➢ Hyperparameter tuning

- ➢ Model validation and evaluation

- ➢ Compare performance metrics

- ➢ Finalize best-performing model

Deliverables:

- ➢ Trained model

- ➢ Evaluation report (Accuracy, Precision, Recall, F1-score, etc.)

- ➢ Saved model file

- ➢ Test API responses

- ➢ Secure API (authentication if required)

Web Integration

Objective: Integrate API into a web-based user interface.

Tasks:

- ➢ Design user-friendly frontend interface

- ➢ Connect frontend to backend API

➢ Display model predictions dynamically

➢ Implement input validation

➢ Perform end-to-end testing

➢ Deploy web application

Deliverables:

➢ Fully functional web application

➢ User interface design

➢ Live deployment link (if applicable)