

Meeting Minutes

Date: 05 July 2025

Time: 10:00 AM – 1:00 AM IST

Team Members:

1. Joshua Koshy
2. Poorva Raut
3. Sujit Lendave
4. Aakanksh Mishra

Agenda:

- Presentation on NumPy, Pandas, TensorFlow, and PyTorch
- Showing live demonstration on libraries mentioned above and show a detailed PoC

Members Present:

1. Mr. Akshay Kunkulol
2. Mr. Mahadev sir
3. Dr. Chhaya Pawar [Associate Professor - Comps Department]
4. Ms. Priyamvada [Assistant Professor - Comps Department]
5. Ms. Lakshmi Gadikar [Assistant Professor -IT Department]
6. Mr. Rahul [Assistant Professor - Comps Department]
7. Ms. Chetana [Assistant Professor - Comps Department]
8. 16 selected students from Computer, IT, and EXTC departments

Meeting Proceedings:

Technology Presentations

- **Aakanksh Mishra** began with **NumPy and Pandas**, explaining their roles in data loading, cleaning, transformation, and correlation analysis.
- **Joshua Koshy** presented **Scikit-learn**, walking through preprocessing steps, model selection, evaluation metrics, and showed 6 different ML algorithms to test it.
- **Poorva Raut** presented **TensorFlow**, outlining its architecture, usage for deep learning models and how to choose between optimizers like **SGD and Adam**.

- **Sujit Lendave** explained **PyTorch**, comparing it to TensorFlow in terms of dynamic computation, ease of debugging, and flexibility.

Feedback from Mentor

General:

- Don't read slides/notebooks; keep it natural.
- Speak confidently; avoid filler/non-English words.
- Use assertive language ("*I'm presenting...*" not "*I got a topic...*").
- Practice delivery (e.g., mirror rehearsal); resources will be shared.
- Emphasize product thinking; aim for vertical feature slices and aim for MVP.

BE1:

- Clarify how correlation helps in models; contrast with Beta.
- Justify data preprocessing steps.
- Explore Keras model options; explain optimizer choices (e.g., SGD).
- Explain logic behind selecting number of layers.

BE2:

- Explain why NaN (e.g., in Avg ROI) appears and how to handle it.
- Justify train/test split ratio (e.g., 80/20).
- Compare DB types: Relational vs Graph vs Vector; when to use what.
- Justify framework choice: PyTorch vs TensorFlow.

TE1:

- Define standard deviation and its business relevance.
- Median imputation—when it works and alternatives; justify based on use case.

TE2:

- Explain negative Sharpe ratio meaning.
- Justify epoch count selection.
- Improve Bull/Bear classification logic; consider better thresholds/timescales.

Screenshot:

The top screenshot shows a Google Meet session with Pranati Arun presenting. The screen displays a Jupyter Notebook titled "intro to pytorch.ipynb" with the following code:

```
[ ] import torch.nn.functional as F #PyTorch libraries for building, training, and opt DL modules
import numpy as np
import matplotlib.pyplot as plt
from sklearn.preprocessing import MinMaxScaler
from sklearn.model_selection import train_test_split
import pandas as pd
from datetime import datetime, timedelta
import warnings
warnings.filterwarnings('ignore')

Set random seeds for reproducibility

torch.manual_seed(42)
np.random.seed(42)

print("=== PyTorch Financial Deep Learning Capabilities Demo ===\n")

=== PyTorch Financial Deep Learning Capabilities Demo ===
```

The bottom screenshot shows a Google Meet session with Aarya Mhatre presenting. The screen displays a Jupyter Notebook titled "TensorFlow.ipynb" with the following text:

TensorFlow is not just for traditional AI applications — it plays a powerful role in building intelligent, multilingual, interactive chatbots in AR/VR environments. Its flexibility and deployability across devices make it especially suitable for immersive, real-time systems.

Key Roles of TensorFlow:

- Multilingual NLP Models
- Gesture Recognition
- Translation Models
- Gesture Recognition

TensorFlow Lite allows all of the above to run efficiently on mobile or AR/VR devices, reducing reliance on cloud APIs and improving speed and privacy.

[] Start coding or generate with AI.

A notification bubble is visible in the bottom screenshot: "Are you talking? Your mic is off. Pause this notification".

Next Steps:

Upcoming demos will cover **Lovable Cursor**, **GitHub Copilot**, and **Replit**.

Focus will be on how these tools assist in faster prototyping, live collaboration, and AI-powered code suggestions.

Conclusion:

The meeting concluded at **1:00 PM IST** with clear directions.