DATA PREMIER LEAGUE

TOOLS, LIBRARIES AND FRAMEWORKS

Team HackHive

### Tools & Platforms

* Google Colab – Development environment
* Python 3.11 – Core programming language
* Jupyter Notebook – Local testing
* Excel – Data processing

### Python Libraries

* **Data Handling:**
  + pandas – Data manipulation
  + numpy – Numerical computations
* **Data Visualization:**
  + matplotlib – Basic plots
  + seaborn – Advanced visualizations
* **Machine Learning Models:**
  + sklearn.linear\_model – Logistic Regression
  + sklearn.neighbors – K-Nearest Neighbors
  + sklearn.ensemble – Random Forest Classifier
  + sklearn.tree – Decision Tree Classifier
  + sklearn.naive\_bayes – Gaussian Naïve Bayes
* **Feature Engineering & Optimization:**
  + sklearn.preprocessing – Feature scaling
  + sklearn.model\_selection – GridSearchCV for hyperparameter tuning
* **Graph-Based Analysis:**
  + networkx – Social network and graph-based analysis