Project Management Document

Project Name: Placement Prediction Using Machine learning.

Project Overview :

The project is designed to predict job placements for graduating students based on factors such as grades, internships, projects, and technical skills. Our goal is to develop a system that can accurately identify which students are more likely to secure job placements after graduation. To achieve this, we have employed various classification algorithms, including Decision Tree, Logistic Regression, and Random Forest. These algorithms analyze the provided data and generate predictions with a high level of accuracy.

Team Roles and Responsibilities:

B.Hymavathi (S180805) :

Algorithm selection , Model Training & Evaluation & Report Writing

D.Santhosh (S180878) :

Front End & Backend.(System Development)

Ch.Tanuja (S180516) :

Data Collection , Preprocessing & Backend.

Project Timeline :

Phase1: Data Collection and Preprocessing [55 Hours]

- Task 1: Gather relevant data from the students. It includes obtaining data such as their grades, skills and internships
- Task 2 : Data preprocessing involves cleaning,transforming and integrating the collected student data to ensure quality and usability for training the prediction model.

Phase2: Algorithm Selection and Model Training [100 Hrs]

- Task 3 : Evaluate Different Classification Algorithms (Decision Tree, Logistic Regression and Random Forest) for model selection.Select the most suitable algorithm(s) and train the model.
- Task 4: Train and optimize the selected models using the preprocessed data.

Phase3 : Model Evaluation and Performance Analysis[50 Hrs]

- Task 5 : It involves testing model on a validation dataset
- Task 6 : Calculating performance metric that is accuracy and interpreting the results to select and optimize the best-performing model

Phase4 : System Development [80 Hrs]

- Task 7 : Implement the selected model into a user-friendly system with a web-based interface.

Responsibilities :

❖ **Feature Engineering :** Identify and create meaningful features from the available student attributes. Extract and select features that have a strong influence on job placement predictions.

❖ **Data Scientist :** Responsible for data collection , preprocessing, algorithm selection and model training.

❖ **Software Developer :** Responsible for system Development ,web interface implementation and integrating the trained model into the system's backend.

Person-Hours Spent:

For all phases:

- Data Collection and Preprocessing : **55 hours**
- Algorithm Selection and Model Training**: 100 hours**
- Model Evaluation and Performance Analysis**: 50 hours**
- System Development : **80 hours**

Lines of Code :

- Data Collection and Preprocessing :
- Algorithm Selection and Model Training
- Model Evaluation and Performance Analysis
- System Development : 500 lines of code

Conclusion :

In conclusion, the project management document for " Placement prediction using ML" project provides a clear roadmap and guidelines for effectively managing the project.It outlines the project objective, timelines, Roles &Responsibilities.By following the document,You can ensure efficient coordination, effective communication and successful execution of the project, ultimately leading to accurate job placement predictions for students.