

Copilot

Sure! Here's a detailed work breakdown for your traffic prediction project:

Work Breakdown Structure (WBS)

1. Project Planning

- Define project objectives and scope.
- Assign roles and responsibilities.
- Set timelines and milestones.

2. Data Collection

- **Task 1:** Identify data sources (e.g., Kaggle, government databases, traffic APIs).
- **Task 2:** Download and organize the data.
- **Task 3:** Document data sources and collection methods.

3. Data Preprocessing

- **Task 1:** Clean the data (handle missing values, remove outliers).
- **Task 2:** Normalize the data.
- **Task 3:** Split the data into training and testing sets.

4. Feature Engineering

- **Task 1:** Identify relevant features (e.g., time of day, weather conditions).
- **Task 2:** Create new features if necessary.
- **Task 3:** Document the feature selection process.

5. Model Selection

- **Task 1:** Research and select appropriate models (e.g., Linear Regression, Decision Trees, Random Forest, SVM, ARIMA).
- **Task 2:** Implement the selected models.
- **Task 3:** Compare model performance using evaluation metrics.

6. Model Training and Evaluation

- **Task 1:** Train the models on the training data.
- **Task 2:** Evaluate model performance using metrics like MAE or RMSE.
- **Task 3:** Fine-tune the models for better performance.

7. Model Deployment

- **Task 1:** Develop a deployment strategy (e.g., web app, API).
- **Task 2:** Implement the deployment solution.
- **Task 3:** Test the deployed model for real-time predictions.

8. Documentation and Reporting

- **Task 1:** Document the entire project process.
- **Task 2:** Prepare a final report with findings and results.
- **Task 3:** Create a presentation for project stakeholders.

Assigning Tasks

You and your friend can divide the tasks based on your strengths and interests. For example:

- **You:** Focus on data collection, preprocessing, and feature engineering.
- **Your Friend:** Focus on model selection, training, evaluation, and deployment.

Collaboration

- Use GitHub to share code and collaborate.
- Schedule regular meetings to discuss progress and challenges.
- Use project management tools like Trello or Asana to track tasks and milestones.

This breakdown should help you organize and manage your project effectively. If you need more details on any specific task, feel free to ask!