# **Project Plan**

We will have our daily standups at 12pm each day.

### **Week 1: Project Setup and Initial Data Handling (May 29 - June 2)**

**Objective**: Establish project foundations, define roles, start data preprocessing.

**Tuesday (May 28)**:

**Meeting:** Initiate detailed project planning and task distribution.

Sasha: Develop comprehensive project plan.

Sally: Overhaul and update the Trello board.

Peter & Mihai: Start on data preprocessing.

Jonas: overlooked the project tasks.

**Action:** Examine ANWB and KNMI datasets to evaluate structure and quality.

**Wednesday (May 29)**:

* **Morning**: Define project tasks and user stories in a shared document for transparency.
* **Afternoon**: Data cleaning, specifically addressing missing values and outliers in the data.

**Thursday (May 30)**:

* **All Day**: Continue data preprocessing: standardize date formats and encode categorical variables.

**Friday (June 31)**:

* **Morning**: Daily standup to review the week's progress and adjust tasks accordingly.
* **Afternoon**: Weekly retrospective with a focus on individual contributions and risk identification.
* Discuss and update Kanban board, noting progress and any blockers.
* Celebrate achievements, address workflow bottlenecks, and plan risk mitigation strategies.
* Assign follow-up actions with deadlines and document in Trello.
* Communicate outcomes and updates to stakeholders.

### **Week 2: Model Development and Initial Testing (June 5 - June 9)**

**Objective**: Develop and start evaluating the machine learning model.

**Monday (June 3)**:

* **Morning**: Select and begin training with appropriate machine learning models.
* **Afternoon**: Develop a baseline model and document the rationale behind model choice and configurations.

**Actually**: Continued preprocessing the data.

**Tuesday (June 4)**:

* **All Day**: Continue model training and start initial testing on a split of the preprocessed data. Discuss initial performance metrics in the daily standup.

**Actually**: Continued preprocessing the data and the completion ILO 5.0 preprocessing.

**Wednesday (June 5)**:

* **Morning**: Optimize model parameters based on Tuesday’s results to enhance prediction accuracy.

**Actually:** Developed a baseline model and documented the rationale behind model choice and configurations. Further completed ILO 3.4 -3.6.

**Thursday (June 6)**:

* **All Day**: Implement feedback from Wednesday's review; adjust model features or parameters as needed. Test enhanced models.

**Actually**: Mihai worked on a CNN model,

Peter worked on RandomForestClassifier model,

Sasha worked on k-nearest neighbors model,

Sally worked on gradient boost model, and

Jonas worked on time series model.

**Friday (June 7)**:

* **Morning**: Daily standup to review progress.
* **Afternoon**: Weekly retrospective focusing on communication effectiveness and feedback implementation. Plan for next week's model validation phase.

### **Week 3: Model Validation and Final Adjustments (June 12 - June 16)**

**Objective**: Validate the model thoroughly and make necessary refinements.

**Monday (June 10)**:

* **All Day**: Conduct thorough model evaluations using metrics like accuracy, precision, recall, and F1-score. Validate models against holdout data.

**Tuesday (June 11)**:

* **Morning**: Refine models based on Monday’s testing outcomes.
* **Afternoon**: Work on integrating the model with the Google Maps extension for real-time risk assessments.

**Wednesday (June 12)**:

* **Morning**: Document legal considerations as per GDPR and EU AI Act; refine the AI model to ensure compliance. And figuring out model deployment strategies.

**Thursday (June 13)**:

* **Day**: Look further into model deployment strategies.

**Friday (June 14)**:

* **Afternoon**: Deploy model.

### **Week 4: Presentation and Project Closure (June 19 - June 20)**

**Monday (June 17)**:

* **Day**: Preparation of project documentation and presentation materials. Focus on clarity, comprehensive coverage, and professional standards.

**Tuesday (June 18)**:

* **Day:** Continue refining project documentation and presentation materials.

**Wednesday (June 19)**:

* **Day**: Continue refining project documentation and presentation materials.

**Thursday (June 20)**:

**Morning**: Run through the final presentation with all team members. Practice and refine delivery.

**Afternoon**: Make last-minute adjustments to the presentation based on practice feedback.

**Friday (June 21)**:

* **Morning**: Final team meeting to ensure readiness and alignment.
* **Afternoon**: Deliver the final presentation to stakeholder and mentor. Highlight the innovative approach, technical robustness, and potential impact on road safety.