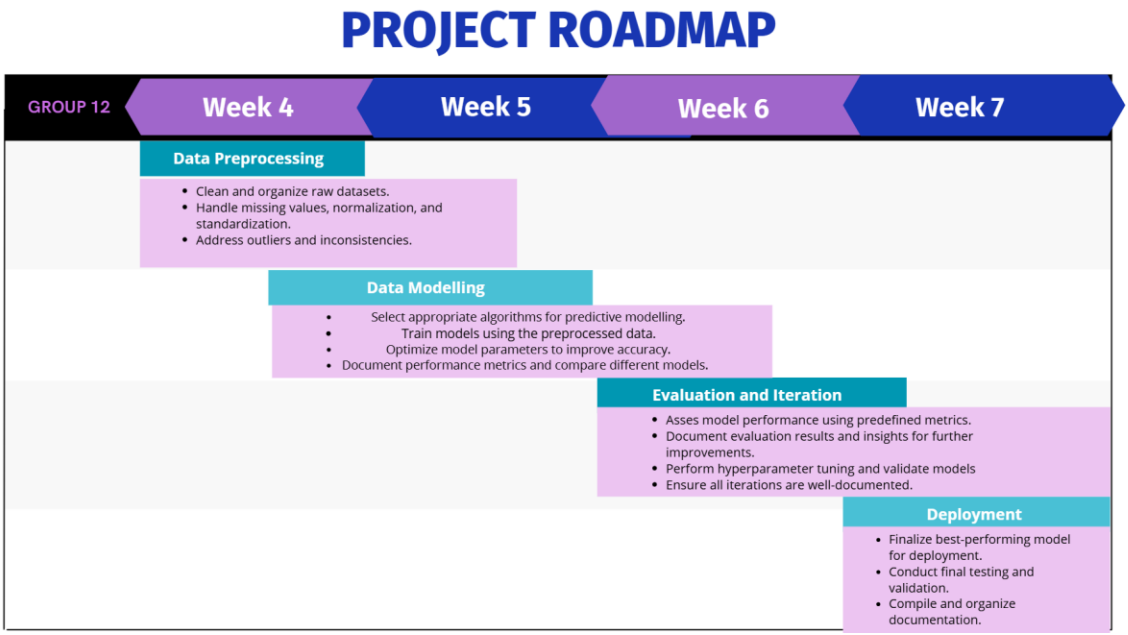

User Stories and Roles

Week 4: Data Preprocessing

Tasks:

- Clean and organize datasets.
- Handle missing values, normalization, and standardization.
- Address outliers and inconsistencies.

User Story: From a data engineer point,

We want to ensure the dataset is clean and well-prepared,

So that when we move to the data scientist's steps, we can efficiently model accurate predictions.

Week 5: Data Modeling

Tasks:

- Select appropriate algorithms.
- Train models using the preprocessed data.
- Optimize model parameters to improve accuracy.
- Document performance metrics and compare different models.

User Story: From a machine learning point,

We want to select and refine the best algorithms,

So that we achieve high accuracy and reliability in our predictions.

Week 6: Evaluation and Iteration

Tasks:

- Assess model performance using predefined metrics.
- Document evaluation results and insights for further improvements.
- Perform hyperparameter tuning and validate models.
- Ensure all iterations are well-documented.

User Story: From a quality assurance analyst point,

We want to thoroughly test and refine our models,

So that we ensure the deployed solution meets high standards of performance and accuracy.

Week 7: Deployment

Tasks:

- Finalize the best-performing model for deployment.
- Conduct final testing and validation.
- Compile and organize documentation.

User Story: From a deployment engineer point,

We want to ensure the model is robust and operational,

So that it can be seamlessly integrated into Google Maps for use by municipal authorities and drivers.

Combined User Story: Collaborative Enhancement of Road Safety Through Integrated Alerts

As a team of developers building the accident predicting algorithm, **We want** to integrate our solution with Google Maps and collaboratively design a user interface that provides safety alerts,

So that municipal authorities can use the predictive capabilities within a familiar platform and drivers can receive personalized alerts based on their current routes and conditions, enhancing overall road safety management and individual driver safety.