Feedback & Contribution Documentation

Feedback Documentation - Improve the Road Safety in Breda

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1 Background

This document contains detailed feedback for each team member involved in the data science project, along with actionable steps to enhance future collaboration, contribution, documentation and project outcomes.

2 Goal

Collect and document feedback for each team member to identify strengths and areas for improvement. The goal is to provide constructive insights that can guide individual and team development, ultimately leading to more effective project execution and better collaboration.

3 Method

Feedback Collection: Gather feedback from all team members through meetings, discussions, and direct observations.

Documentation: Record the feedback, categorizing it by individual team members and specific areas of focus such as technical skills, communication, and teamwork.

Analysis: Analyse the feedback to identify common themes, strengths, and areas needing improvement for each team member.

Actionable Steps: Develop specific, actionable steps for each team member based on the feedback analysis to help them improve their performance and collaboration skills.

Review and Follow-Up: Regularly review the documented feedback in GitHub and the progress made on the actionable steps, adjusting the goals and methods as needed to ensure continuous improvement.

Group GitHub:

https://github.com/BredaUniversityADSAI/2023-24d-fai1-adsai-teamwork-t18

SharePoint:

Teams Meeting

4 Feedback & Review

Week 4: Data

29/05/2024, Stand-up, Review & Feedback meeting:

Daria Vlăduţu:

- **Feedback:** Daria is actively involved and ensuring documentation. She reminds the team to record their activities and to maintain organized documentation.
- **Actions:** Continue documenting all processes related to dataset modifications. Ensure all preprocessing steps are clearly recorded and communicated. Maintain the GitHub repository with updated code and presentations.

Peter Husen:

- **Feedback:** Peter is responsible for working on the data sets and communicating any limitations or issues he encounters. He is also expected to document his progress and decisions.
- **Actions:** Finalize the documentation of current dataset modifications. If any dataset is deemed unusable, document the reasons, and communicate these findings to the team. Continue collaborating on the preprocessing and normalization tasks.

Ron Lev Tabuchov:

- **Feedback:** Ron contributes to the discussion on task distribution and future steps, including preprocessing and joining datasets. He ensures tasks are assigned and completed efficiently.
- **Actions:** Focus on joining the pre-processed datasets once Daria and Peter complete their parts. Document any preprocessing done and update the team. Ensure all team members' code is integrated and functional in the GitHub repository.

Mohamed Khaled Ahmed Mohamed Elshami:

- **Feedback:** Mohamed's contributions are less detailed in the provided transcript, but he is part of the discussion on dataset management and machine learning model development.
- **Actions:** Ensure his code is up to date in the GitHub repository. Collaborate on the development and implementation of the machine learning model. Communicate any issues or progress to the team.

Summary of Future Actions:

- **Documentation:** Every team member should document their work meticulously, including preprocessing steps, dataset modifications, and integration processes.
- **Communication:** Maintain clear and frequent communication regarding progress and issues encountered.
- **GitHub Management:** Ensure all code and relevant files are uploaded and maintained in the GitHub repository for consistency and collaboration.
- **Task Coordination:** Continue to coordinate tasks effectively, ensuring all steps from data preprocessing to model deployment are covered and assigned.

30/05/2024, Stand-up, Review & Feedback meeting:

Ron Lev Tabuchov:

- Successfully worked on evidencing and shared the files in the GitHub folder.
- Needs feedback on the ILOs (Intended Learning Outcomes) evidenced.
- Emphasized the importance of linking work logs and updating the high-level plan with risks and user stories.

Daria Vlăduţu:

- Suggested adding dates to the communication files.
- Worked on filtering and preprocessing the dataset, removing outliers, and normalizing data.
- Shared a detailed analysis of incidents and normalization techniques used.

Peter Husen:

- Focused on the legal framework, compiling requirements, and ensuring compliance with ANWB's practices.
- Plans to create a guidebook for legal requirements and compliance to aid in machine learning model development.

Mohamed Elshami:

- Adjusted and filtered dates in the dataset based on feedback.
- Encountered issues with outlier detection and understanding data intensity.

Action Points:

Ron Lev Tabuchov:

- Continue working on linking and evidencing ILOs.
- Integrate feedback into the high-level plan and user stories.
- Add mentors to Trello for better task management and visibility.
- Work on the new weather data set with Mohamed.

Daria Vlăduţu:

- Complete the normalization of the dataset.
- Upload the notebook with the final dataset and preprocessing steps to GitHub.

Peter Husen:

- Finalize the legal framework and compliance guide.
- Upload the legal compliance document to GitHub.

Mohamed Elshami:

- Continue working on preprocessing and normalizing the dataset.
- Upload the Jupyter notebook with EDA (Exploratory Data Analysis) to GitHub.

Reflections:

- The team is on track with the project, ensuring all tasks are documented and shared on GitHub for transparency and collaboration.
- Communication through Trello and GitHub has been effective in tracking progress and contributions.
- The importance of clear task division and regular feedback is emphasized for project success.

Points for Improvement:

- Ensure all team members are clear on the tasks and deadlines.
- Improve the understanding and handling of outliers and data preprocessing.
- Better integration of feedback into ongoing tasks to streamline the workflow.

Improved Points from Last Feedback:

- Enhanced communication and documentation on GitHub and Trello.
- More detailed and structured approach to data preprocessing and EDA.
- Better clarity on the legal framework and compliance requirements.

Summary of the Meeting:

- The team reviewed progress on various tasks, including data preprocessing, legal framework, and evidencing ILOs.
- Key points of discussion included handling outliers, normalizing data, and ensuring compliance with ANWB practices.
- The team plans to continue working on individual tasks, ensuring documentation and transparency through GitHub.
- Regular communication and feedback were highlighted as critical for the project's success, with specific action points assigned to each team member.

31/05/2024 Stand-up, Review & Feedback meeting:

General Feedback

- The team is slightly behind schedule but optimistic about catching up.
- Emphasis on clear communication and sharing updates regularly.
- Recognition of thorough exploratory data analysis (EDA) and preprocessing efforts.

Action Points:

- Complete data cleaning and handle missing values appropriately.
- Finalize the new SQL tables and prepare for model training.
- Ensure data normalization and transformation are correctly applied.
- Legal Framework
- Continue working on the guidebook for legal compliance.
- Ensure the documentation aligns with project requirements and organizational policies.
- Model Training
- Define the objectives for the machine learning models (e.g., predicting high-risk roads).
- Split the data into training and test sets using a 70-20-10 split.
- Focus on decision trees initially due to their robustness to data types.
- Documentation and Reporting
- Update the shared GitHub repository with the latest notebooks and documentation.
- Ensure all team members contribute to the GitHub to document their work.
- Maintain a clear and consistent communication channel for discussing progress and issues.

Reflections:

- The team acknowledges the need for better organization and accessibility of shared files.
- Recognized the importance of collaboration and honest feedback to improve the quality of work.
- There is a consensus on the need to focus on efficient task management and timely updates.

Points for Improvement

- Improve the organization and accessibility of shared files and documentation.
- Ensure all team members are actively contributing to the GitHub repository to document their work.
- Maintain a clear and consistent communication channel for discussing progress and issues.
- Improved Points from Last Feedback
- Enhanced the dataset by addressing missing values and outliers.
- Better organization of the ILO evidencing process and linking work logs.
- Increased communication and feedback during stand-up meetings.
- Meeting Details and Discussions

Data Preprocessing

- Ron Lev emphasized the importance of validating the data and handling outliers.
- Mentor (Jason) approved data preprocessing and provided additional steps to enhance the data.
- Discussions on whether to drop the 'is valid' column or assume all data is valid.
- Agreement on focusing the EDA on roads rather than time series data.

Legal Framework

- Peter discussed the progress on the legal framework and the need for a compliance guidebook.
- The team agreed on the importance of aligning with ANWB’s existing policies and adding necessary addendums.

Model Training

- Decided on a 70-20-10 data split for training, validation, and testing.
- Discussed the approach to handling categorical data in decision trees.
- Consideration of different model evaluation metrics and interpretability.
- Documentation and Communication

Summary of the Meeting

- Emphasis on updating the shared GitHub repository with all relevant work.
- Agreed to maintain a consistent communication channel for discussing progress and issues.
- Importance of honest feedback and collaborative problem-solving highlighted.

The team discussed the progress on their tasks, primarily focusing on the data preprocessing, legal framework, and machine learning model training. They shared updates on dataset cleaning, handling outliers, and the next steps for their project. Key decisions included the approach to validating data, how to handle missing values, and the strategy for model training and evaluation.

Week 5: Machine Learning & Legal Framework

03/06/2024, Stand-up & Review meeting:

Ron Lev Tabuchov:

- Emphasized the importance of finishing the data preparation before moving on to machine learning.
- Suggested marking completed tasks in Trello for better tracking.
- Highlighted the need for team communication and feedback.

Daria Vlăduţu:

- Confirmed normalization of data from -1 to 1.
- Encountered issues with converting the data frame to an SQL table due to permission restrictions.
- Redid preprocessing to include all valid data and encoded categorical variables.

Peter Husen:

- Worked on the legal framework and the explanation of risk levels.
- Marked the project as high risk due to potential behaviour influence on the road.
- Agreed on using low, medium, and high-risk categories for data.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- Mentioned the existing Group 18 Warehouse table for data storage.
- Planned to work on evidencing ILO 5.

Action Points

Data Preparation

- Convert data frames to SQL tables.
- Join the data tables and split them for machine learning tasks.
- Ensure data is uploaded and accessible in the GitHub repository.

Machine Learning Models

- Prepare and train decision tree and random forest models.
- Evaluate models and document the results.
- Start working on the Explainable AI (XAI) components.

Legal Framework

- Complete and finalize the legal requirements documentation.
- Ensure compliance with the high-risk level identified for the project.

Documentation and Communication

- Regularly update the shared GitHub repository.
- Communicate any issues or progress through the established channels.
- Ensure all contributions are documented and linked appropriately.

Reflections

- The team is focused on catching up with the project schedule.
- Clear and consistent communication is recognized as crucial for project success.
- The need for organized documentation and tracking of tasks was emphasized.

Points for Improvement

- Improve the efficiency of data conversion and joining processes.
- Enhance the clarity of task assignments and progress tracking in Trello.
- Ensure all team members have the necessary permissions and tools for their tasks.

Improved Points from Last Feedback

- Better normalization and preprocessing of the dataset.
- Improved communication and documentation practices.
- Enhanced collaboration on the legal framework and risk assessment.

Feedback Provided by Each Team Member During the Meeting:

- Ron Lev Tabuchov: Stressed the importance of finishing data preparation, suggested marking tasks in Trello, and emphasized the need for communication.
- Daria Vlăduţu: Shared progress on data normalization and preprocessing, highlighted issues with SQL table conversion, and suggested including the max speed feature.
- Peter Husen: Provided updates on the legal framework and risk level assessment, agreed on using low, medium, and high-risk categories, and reviewed task assignments.
- Mohamed Khaled Ahmed Mohamed Elshami Mohamed: Mentioned the Group 18 Warehouse table, discussed SQL conversion, and planned to work on evidencing ILO 5.

Summary of the Meeting

The team discussed the status of their tasks, focusing on data normalization, transformation, and joining for the machine learning models. They also touched on the legal framework, the next steps for model training, and the need for clear communication and documentation.

04/06/2024, Stand-up & Review meeting:

Tabuchov Ron Lev:

- Appreciated the effort in data joining and the implementation of risk levels based on weather codes.
- Suggested improvements in documentation and maintaining consistency in the data columns.

Reflections:

- Emphasized the importance of having a clear and well-documented data set.

Points for Improvement:

- Improve the clarity of the data joining process.
- Improved Points from Last Feedback:
- Successfully joined data sets and implemented risk levels accurately.

Vlăduţu Daria:

- Received positive feedback for the preprocessing tasks and SQL table conversion.
- Highlighted the need for finalizing the legal answers and contributing to the proposal.

Reflections:

- Recognized the need for better coordination in the documentation process.

Points for Improvement:

- Enhance the consistency in data preprocessing and column management.

Improved Points from Last Feedback:

- Completed the preprocessing tasks and converted the data into SQL tables effectively.

Action Points:

Ron Lev Tabuchov:

- Finalize the data joining and ensure all columns are included.
- Update the proposal with the latest data and findings.
- Split the data sets for machine learning tasks.
- Upload the completed notebooks and ensure all individual tasks are documented.

Peter Husen:

- Complete the legal answers and ensure they are integrated into the final document.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- Assist in splitting the data sets and prepare for machine learning iterations.

Reflections:

- The team acknowledged the progress made in data preprocessing and documentation.
- Emphasized the need for clear communication and documentation to avoid redundancy and ensure consistency.

Points for Improvement:

- Better coordination in data joining and preprocessing to ensure all columns and data points are included.
- Enhance the clarity and consistency in documentation and proposal preparation.

Improved Points from Last Feedback:

- Successful implementation of risk levels based on weather codes.
- Effective completion of data preprocessing and conversion into SQL tables.

Summary of the Meeting:

- The team discussed the progress on preprocessing tasks, data set splitting, and proposal preparation.
- Tasks were divided among team members, with a focus on completing legal answers, data preprocessing, and preparing for machine learning.
- The discussion included reviewing the data sets, ensuring all columns were properly joined, and updating the proposal documents.

05/06/2024, Stand-up & Review meeting:

Ron Lev Tabuchov:

- Worked on the dataset normalization and added latitude and longitude for better deployment.
- Suggested improvements in data joining for better information display.
- Encouraged team members to update their learning logs.

Daria Vlăduţu:

- Discussed the use of street names in the dataset.
- Raised concerns about everyone needing to assess the legal framework individually and then collectively.

Peter Husen:

- Worked on the EU AI Act, completing about a third.
- Will finish and start integrating rules into a framework.
- Highlighted the need for individual assessments for the project's legal risks.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- Combined the team proposal into a Word file and pushed it to GitHub.
- Worked on the legal framework tasks 3.1 and 3.2.

Action Points:

Ron Lev Tabuchov: Finalize the dataset and ensure all preprocessing steps are correctly applied.

Daria Vlăduţu: Verify the individual and group tasks regarding the legal framework with the mentor.

Peter Husen: Complete the integration of the EU AI Act rules and upload the progress.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed: Start working on the interface design in Figma.

Reflections:

- The team discussed the importance of all members contributing to the legal framework individually.
- There was a clarification needed regarding whether one person could handle the entire legal documentation for the group or if everyone needed to contribute individually.

Points for Improvement:

- Ensure better communication and clarity regarding task assignments and requirements.
- More regular updates and commits to the shared repository.

Improved Points from Last Feedback:

- Increased collaboration on the dataset normalization and preprocessing.
- Better understanding of the legal framework requirements and individual contributions.

Summary of the Meeting:

- The meeting started with Ron Lev Tabuchov discussing the work done on the dataset normalization and the need for longitude and latitude data.
- Daria Vlăduţu brought up the need for each team member to assess the legal framework individually.
- Peter Husen shared his progress on the EU AI Act and the need for individual assessments for the project's risks.
- Mohamed Khaled Ahmed Mohamed Elshami Mohamed updated the team on the proposal document and his work on the legal framework tasks.
- The team discussed the next steps, including data finalization, legal framework assessments, and starting on the interface design.

07/06/2024, Stand-up & Review meeting:

Ron Lev Tabuchov:

- Successfully created a model that assigns weights to different severity levels and calculates a severity score for each road. Highlighted that the model performs well without overfitting.
- Suggested the need for further preprocessing and documentation of the model's steps to comply with legal requirements.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- Worked on clustering using K-means and integrating it with Google Maps. Mentioned the difficulty of processing and visualizing the data due to the high computational load.
- Proposed the idea of marking roads with different risk levels on maps and using clustering to identify danger zones.

Peter Husen:

- Completed the legal documentation and uploaded the necessary templates and PDF documents to GitHub. Emphasized the need for each team member to review and comply with the legal requirements.
- Mentioned the importance of documenting all steps and models to fulfill legal obligations and highlighted the use of markdowns for better organization.

Daria Vlăduţu:

- Built a deep learning model but encountered issues with overfitting. Mentioned attempts to mitigate overfitting through various techniques.
- Agreed to work on clustering alongside to compare results and improve the model's performance.

Action Points

Ron Lev Tabuchov:

- Clean the file and upload the final model with the documented steps.
- Implement Explainable AI (XAI) components if needed.
- Document all steps taken in the modeling process for legal compliance.

Daria Vlăduţu:

- Continue working on clustering and integrating it with Google Maps.
- Try different clustering methods to improve results and visualize the data effectively.
- Collaborate with Mohamed on clustering and compare findings.

Peter Husen:

- Review and complete the legal documentation.
- Ensure all team members are aware of and comply with the legal requirements.
- Document all steps and models to meet legal obligations.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- Continue working on deep learning models and explore techniques to reduce overfitting.
- Collaborate with Daria on clustering and compare results.
- Document all modelling steps and ensure compliance with legal requirements.

Reflections

- The team made significant progress in modelling and legal documentation.
- Identified the need for better documentation and compliance with legal requirements.

Points for Improvement

Model Validation:

- Improve the validation process to ensure models are not overfitting. This includes better handling of validation sets and different evaluation metrics.

Data Processing:

- Enhance the efficiency of data processing and visualization to handle large datasets more effectively.

Documentation:

- Ensure thorough documentation of all steps and models to comply with legal requirements.
- Improved Points from Last Feedback
- Successfully created a model that performs well without overfitting.
- Better collaboration on clustering and integrating results with Google Maps.
- Improved documentation practices to meet legal obligations.

Summary of the Meeting

- The team discussed the progress on their models, with a focus on addressing overfitting and enhancing data visualization.
- Emphasized the importance of legal compliance and thorough documentation.
- Agreed on the next steps, including further preprocessing, clustering, and model validation.
- Highlighted the need for collaboration and comparing different approaches to improve overall project outcomes.

Week 6: Iteration & Interface Design

10/06/2024, Stand-up & Review meeting:

Ron Lev Tabuchov:

- Created multiple models and focused on documentation and transparency of the machine learning steps.
- Emphasized the need to document machine learning models thoroughly for legal compliance and Explainable AI (XAI) purposes.

Daria Vlăduţu:

- Discussed the final template for the models and clarified the use of different models like random forest, decision trees, and K-means.
- Highlighted the need to ensure all steps and models are well-documented and aligned with the assessment rubric.

Peter Husen:

- Worked on legal documentation and emphasized the importance of complying with legal standards.
- Suggested including various models in the documentation to show different approaches and their explainability.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- Focused on building and validating models, including K-means and CNNs.
- Agreed to conduct more iterations and improve model accuracy.

Action Points

Ron Lev Tabuchov:

- Finalize the model documentation and ensure transparency.
- Continue to compare and document the performance of different models.

Daria Vlăduţu:

- Complete the machine learning documentation and integrate feedback from team members.
- Work on the interface design using the provided templates and ensure it aligns with project requirements.

Peter Husen:

- Finalize the legal documentation and ensure all models comply with legal standards.
- Assist in documenting the steps and processes involved in the machine learning models.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- Conduct additional iterations of the K-means model and validate the results.
- Ensure all models are documented and integrated into the final project deliverables.

Reflections

- The team made significant progress in model development and documentation.
- Recognized the need for thorough documentation to comply with legal standards and ensure explainability.
- Emphasized the importance of collaboration and clear communication to meet project deadlines.

Points for Improvement

Model Validation:

- Improve the validation process to ensure models are not overfitting and are generalizable.

Documentation:

- Enhance the clarity and thoroughness of documentation to meet legal and project requirements.

Collaboration:

- Maintain regular communication and updates to ensure all team members are aligned and tasks are completed on time.

Improved Points from Last Feedback

- Successfully created and documented multiple models with high accuracy.
- Improved collaboration and division of tasks among team members.
- Better alignment with legal standards and project requirements.

Summary of the Meeting

- The team discussed the progress on their machine learning models, focusing on documentation, transparency, and compliance with legal standards.
- Agreed on the next steps, including finalizing model documentation, conducting additional iterations, and completing the legal framework.
- Emphasized the importance of collaboration, clear communication, and thorough documentation to meet project deadlines and requirements.

11/06/2024, Stand-up & Review meeting:

Feedback:

- High accuracy in models but concerns about overfitting.
- Importance of balancing classes using SMOTE.
- Need for thorough documentation of machine learning steps for legal and explainability purposes.
- Feature importance analysis is crucial for model transparency.
- Consistency in clustering results needs addressing due to different data samples and computational environments.

Action Points

- Implement SMOTE to balance class distribution in the dataset.
- Continue refining feature importance analysis to enhance model interpretability.
- Validate models with additional iterations and ensure accuracy metrics are well-documented.
- Finalize legal documentation and ensure all models meet required legal standards.
- Prepare the environment for model deployment, ensuring all dependencies and configurations are correctly set up.
- Double-check the environment setup, including verifying GitHub links and ensuring appropriate access permissions for all team members.
- Collaborate on creating a consistent computational environment to maintain uniformity in model training and evaluation.

Reflections

- Recognized the importance of reducing overfitting in machine learning models to ensure generalizability.
- Acknowledged the need for clear and interpretable feature importance metrics to build trust and validation in model predictions.
- Emphasized the importance of comprehensive documentation for both technical and legal compliance.

Points for Improvement

- Address inconsistencies in clustering results due to different data samples and computational environments. Ensure models are trained and evaluated in a consistent manner.
- Improve the explanation and documentation of feature importance to enhance model transparency and decision-making processes.
- Enhance the thoroughness and clarity of documentation to meet legal and project requirements. Ensure all steps, models, and configurations are well-documented and accessible.

Improved Points from Last Feedback

- Successfully reduced training time for models, improving efficiency in the modelling process.
- Made significant progress in identifying and validating important features for model predictions, contributing to better explainability and trust in the models.

Summary of the Meeting

The meeting focused on reviewing progress on machine learning models, emphasizing the need to address overfitting, balance class distributions, and ensure comprehensive documentation for legal compliance. Discussions included the importance of feature importance analysis, consistency in model training, and deployment preparation. Action points were identified to address current issues and prepare for final deployment. The team highlighted improvements in training time optimization and feature analysis since the last feedback.

12/06/2024, Stand-up & Review meeting:

Ron Lev Tabuchov:

- Highlighted the need to document all steps and ensure transparency.
- Suggested using existing weights and balancing classes with SMOTE to improve model performance.
- Emphasized the importance of thorough documentation for legal compliance and explainability purposes.
- Mentioned the challenge of high accuracy (100%) in models and suggested adding more columns to reduce it slightly.

Daria Vlăduţu:

- Worked on finalizing the template for models and clarified the use of different algorithms.
- Discussed the challenge of ensuring all steps and models are well-documented and align with the assessment rubric.
- Mentioned ongoing iterations of decision tree models and the need for deployment preparation.
- Proposed making functions generalizable for different datasets to ensure reproducibility.

Peter Husen:

- Focused on legal documentation and integrating rules into the framework.
- Suggested including various models in the documentation to show different approaches and their explainability.
- Highlighted the need to check the environment setup and ensure proper deployment preparations.
- Mentioned the need for evaluating and comparing models to select the best trade-off.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- Built and validated new models, including K-means and CNNs, and highlighted overfitting issues.
- Agreed to work on clustering with Daria to improve model performance.
- Emphasized the importance of balancing class distributions and validating neural networks.
- Addressed the need for responses in AB testing and suggested a quicker approach by asking people on campus.

Action Points

- Implement SMOTE to balance class distributions.
- Continue refining feature importance analysis.
- Validate models with additional iterations and ensure accurate documentation.
- Finalize legal documentation and ensure all models meet required legal standards.
- Prepare the environment for model deployment, ensuring all dependencies and configurations are correctly set up.
- Verify the environment setup, including GitHub links and access permissions for team members.
- Collaborate on creating a consistent computational environment to maintain uniformity in model training and evaluation.
- Compare different models and document the outcomes.
- Ensure the comparison is included in the final documentation and is aligned with the assessment rubric.

Reflections

- Recognized the importance of addressing overfitting in machine learning models to ensure generalizability.
- Acknowledged the need for clear and comprehensive documentation for both legal and technical compliance.
- Emphasized the importance of collaboration and regular updates to ensure alignment and progress.

Points for Improvement

- Model Consistency: Address inconsistencies in clustering results due to different data samples and computational environments. Ensure models are trained and evaluated consistently.
- Feature Importance: Improve the explanation and documentation of feature importance to enhance model transparency and decision-making processes.
- Documentation: Enhance the thoroughness and clarity of documentation to meet legal and project requirements. Ensure all steps, models, and configurations are well-documented and accessible.

Improved Points from Last Feedback

- Training Time Optimization: Successfully reduced training time for models, improving efficiency in the modelling process.
- Feature Importance Analysis: Made significant progress in identifying and validating important features for model predictions, contributing to better explainability and trust in the models.

Summary of the Meeting

The team discussed their progress on model development, documentation, and legal compliance. The focus was on addressing model accuracy, overfitting issues, and ensuring comprehensive documentation for deployment. They planned their tasks for the day, emphasizing the importance of collaboration and clear communication.

13/06/2024, Stand-up & Review meeting:

Ron Lev Tabuchov:

- **Feedback:** Faced issues with the notebook becoming unresponsive. Restarted the system hoping for better performance. Emphasized the importance of closing unnecessary tabs to avoid overloading the server.
- **Action Points:** Work on deployment and create a backup model with 80% accuracy.
- **Reflections:** Noted the need for a more efficient workflow and better management of system resources.
- **Points for Improvement:** Ensure only necessary processes are running to prevent system crashes.
- **Improved Points from Last Feedback:** Addressed the accuracy issue by trying different datasets.

Daria Vlăduţu:

- **Feedback:** Successfully got the model to produce three outputs with a 79% accuracy by using a different dataset and hyperparameter tuning. Updated the learning log and documented progress in GitHub.
- **Action Points:** Finalize and upload the decision tree models and modify evaluation metrics.
- **Reflections:** Found the server performance frustrating, causing delays in running models.
- **Points for Improvement:** Improve server performance by closing unnecessary processes.
- **Improved Points from Last Feedback:** Improved model accuracy and documentation.

Peter Husen:

Feedback: Planned to work on the legal documentation and update tasks on Trello.

Action Points: Focus on setting up the virtual environment and performing the model comparison.

Reflections: Recognized the need to prioritize tasks that are critical for project completion.

Points for Improvement: Better time management to ensure all important tasks are addressed.

Improved Points from Last Feedback: Progress on legal documentation and task management.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- **Feedback:** Shared forms with four teams and received eight responses. Expressed uncertainty about whether more responses were needed.
- **Action Points:** Analyse the responses and set up the virtual environment.
- **Reflections:** Acknowledged the importance of timely data collection and analysis.
- **Points for Improvement:** Improve response collection efficiency for surveys.
- **Improved Points from Last Feedback:** Successfully gathered responses and prepared for analysis.

Action Points

- Implement SMOTE to balance class distributions.
- Continue refining feature importance analysis to enhance model interpretability.
- Validate models with additional iterations and ensure accurate documentation.
- Finalize legal documentation and ensure all models meet required legal standards.
- Prepare the environment for model deployment, ensuring all dependencies and configurations are correctly set up.
- Verify the environment setup, including GitHub links and access permissions for team members.
- Collaborate on creating a consistent computational environment to maintain uniformity in model training and evaluation.
- Compare different models and document the outcomes.
- Ensure the comparison is included in the final documentation and is aligned with the assessment rubric.

Reflections

- Recognized the importance of addressing overfitting in machine learning models to ensure generalizability.
- Acknowledged the need for clear and comprehensive documentation for both legal and project requirements.
- Emphasized the importance of collaboration and regular updates to ensure alignment and progress.

Summary of the Meeting

The team had a stand-up meeting to discuss their activities from the previous day and plan tasks for the current day. Key points included addressing technical issues, working on deployment, finalizing models, and updating documentation.

14/06/2024, Stand-up & Review meeting:

Ron Lev Tabuchov:

- **Feedback:** Worried about the model's 100% accuracy and consulted with a mentor to confirm there was no data leakage. Recommended making the model more robust to handle future data.
- **Action Points:** Start working on the deployment phase and stop further modelling adjustments.
- **Reflections:** Acknowledged spending too much time on modelling and recognized the need to shift focus to deployment.
- **Points for Improvement:** Improve time management and balance between modelling and deployment tasks.
- **Improved Points from Last Feedback:** Addressed model accuracy concerns and improved robustness.

Daria Vlăduţu:

- **Feedback:** Discussed the logic behind severity levels and the challenges of combining different incident types. Emphasized the importance of moving forward with deployment.
- **Action Points:** Focus on deployment, particularly setting up the virtual environment and package management.
- **Reflections:** Highlighted the need to prioritize tasks and avoid getting stuck on prolonged modelling.
- **Points for Improvement:** Ensure timely progression from modelling to deployment phases.
- **Improved Points from Last Feedback:** Worked on finalizing the model and contributed to the documentation.

Peter Husen:

- **Feedback:** Worked on legal documentation and emphasized the importance of evidencing all models, even those not used. Mentioned the need for clear separation of text and code in documentation.
- **Action Points:** Complete legal documentation and assist with deployment setup. Perform model comparisons.
- **Reflections:** Recognized the need for clear and concise documentation to meet legal and project requirements.
- **Points for Improvement:** Improve clarity in documentation and ensure all models are evidenced.
- **Improved Points from Last Feedback:** Progressed with legal documentation and improved task management.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- **Feedback:** Conducted AB test analysis and shared the results. Worked on setting up the virtual environment and discussed the need to identify required packages.
- **Action Points:** Finalize the virtual environment setup and continue with the analysis of collected responses.
- **Reflections:** Acknowledged the importance of clear documentation and efficient setup for deployment.
- **Points for Improvement:** Improve the efficiency of setting up the environment and ensuring all dependencies are managed.
- **Improved Points from Last Feedback:** Successfully gathered responses and prepared for analysis.

Action Points

- Implement SMOTE to balance class distributions.
- Refine feature importance analysis to enhance model interpretability.
- Validate models with additional iterations and ensure accurate documentation.
- Finalize legal documentation and ensure all models meet required legal standards.
- Prepare the environment for model deployment, ensuring all dependencies and configurations are correctly set up.
- Verify the environment setup, including GitHub links and access permissions for team members.
- Collaborate on creating a consistent computational environment to maintain uniformity in model training and evaluation.
- Compare different models and document the outcomes.
- Ensure the comparison is included in the final documentation and is aligned with the assessment rubric.

Reflections

- Recognized the importance of addressing overfitting in machine learning models to ensure generalizability.
- Acknowledged the need for clear and comprehensive documentation for both legal and project requirements.
- Emphasized the importance of collaboration and regular updates to ensure alignment and progress.

Points for Improvement

- Close unnecessary tabs and processes to improve server performance and prevent crashes.
- Ensure all steps and models are well-documented and accessible, meeting legal and project requirements.
- Improve the efficiency of collecting survey responses to ensure timely data analysis.
- Improved Points from Last Feedback
- Model Accuracy: Improved accuracy through hyperparameter tuning and dataset adjustments.
- Documentation: Enhanced documentation with updated learning logs and model details.
- Legal Compliance: Progressed on legal documentation to ensure models meet required standards.

Summary of the Meeting

The team discussed the status of their modelling efforts, addressed issues with deployment, and planned tasks for the upcoming period. The conversation focused on improving model robustness, documenting processes, and ensuring proper deployment setups.

Week 7: Deployment & Presentation

17/06/2024, Stand-up & Review meeting:

Ron Lev Tabuchov:

- **Feedback:** Shared the current score of 78 based on documented ILO's without deployment. Emphasized the importance of making the presentation interactive and suggested having one laptop for the presentation and another for the Figma prototype.
- **Action Points:** Finalize deployment setup and create a backup model. Work on making the presentation and Figma accessible for the evaluation.
- Reflections: Acknowledged the need for better organization and efficient presentation planning.
- **Points for Improvement:** Improve time management and ensure all tasks are prioritized effectively.
- **Improved Points from Last Feedback:** Addressed the accuracy issues by making the model more robust.

Daria Vlăduţu:

- **Feedback:** Discussed the logic behind severity levels and incident classification. Highlighted the importance of finalizing the virtual environment setup and moving towards deployment.
- **Action Points:** Focus on setting up the virtual environment and managing dependencies. Ensure the proposal document is editable and accessible.
- **Reflections:** Emphasized the need to avoid prolonged modelling phases and prioritize deployment tasks.
- **Points for Improvement:** Ensure logical consistency in models and classifications and improve documentation clarity.
- Improved Points from Last Feedback: Finalized models and improved documentation.

Peter Husen:

- **Feedback:** Worked on legal documentation and stressed the importance of including all models, even those not ultimately used, to demonstrate workflow and compliance.
- **Action Points:** Complete legal documentation, assist with deployment setup, and perform model comparisons. Ensure all tasks are updated on Trello.
- **Reflections:** Recognized the need for clear and concise documentation to meet legal and project requirements.
- **Points for Improvement:** Enhance documentation clarity and ensure all models are evidenced properly.
- **Improved Points from Last Feedback:** Progressed with legal documentation and improved task management.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

- **Feedback:** Conducted AB test analysis and shared the results. Worked on setting up the virtual environment and managing package dependencies.
- **Action Points:** Finalize the virtual environment setup and continue analysing collected responses. Ensure all required packages are identified and managed.
- **Reflections:** Acknowledged the importance of clear documentation and efficient setup for deployment.
- **Points for Improvement:** Improve the efficiency of setting up the environment and managing dependencies.
- **Improved Points from Last Feedback:** Successfully gathered responses and prepared for analysis.

Action Points

- Implement SMOTE to balance class distributions.
- Refine feature importance analysis to enhance model interpretability.
- Validate models with additional iterations and ensure accurate documentation.
- Finalize legal documentation and ensure all models meet required legal standards.
- Prepare the environment for model deployment, ensuring all dependencies and configurations are correctly set up.
- Verify the environment setup, including GitHub links and access permissions for team members.
- Collaborate on creating a consistent computational environment to maintain uniformity in model training and evaluation.
- Compare different models and document the outcomes.
- Ensure the comparison is included in the final documentation and is aligned with the assessment rubric.

Reflections

- Recognized the importance of addressing overfitting in machine learning models to ensure generalizability.
- Acknowledged the need for clear and comprehensive documentation for both legal and project requirements.
- Emphasized the importance of collaboration and regular updates to ensure alignment and progress.

Points for Improvement

- Close unnecessary tabs and processes to improve server performance and prevent crashes.
- Ensure all steps and models are well-documented and accessible, meeting legal and project requirements.
- Improve the efficiency of collecting survey responses to ensure timely data analysis.

Summary of the Meeting

The team reviewed their progress and discussed the remaining tasks for completing the project. Key points included addressing the current score, finalizing the presentation setup, and ensuring all documentation is complete and accessible.

18/06/2024, Stand-up & Review meeting:

Feedback:

- Emphasis on finishing the deployment setup, including resolving issues with the environment and package management.
- Importance of making the presentation interactive and accessible, ensuring all team members are prepared.
- Discussion on finalizing the legal documentation and ensuring all models, even those not used, are evidenced properly.
- Focus on the necessity of clear and comprehensive documentation for legal compliance and project requirements.
- Mention of working collaboratively on code cleaning and model comparison to ensure consistency and accuracy.

Action Points

- Ensure the deployment setup is finalized, including resolving any issues with the server environment and package management.
- Prepare the deployment environment by installing necessary packages using Poetry and verifying the setup.
- Work collaboratively on code cleaning to ensure that the final codebase is well-documented and adheres to coding standards.
- Perform code cleaning tasks and document the process thoroughly.
- Compare different models and document the outcomes, ensuring the comparison is included in the final documentation and aligns with the assessment rubric.
- Finalize the model comparison documentation and ensure all models are evidenced.
- Create a comprehensive and interactive presentation, including the problem statement, data, machine learning models, evaluation, and deployment.
- Ensure all team members are prepared for the presentation and can answer potential questions.
- Conduct unit testing to verify the functionality of the codebase and ensure it meets the required standards.
- Document the unit testing process and include it in the final documentation.

Reflections

- Recognized the importance of clear and comprehensive documentation to meet both legal and project requirements.
- Acknowledged the need for efficient collaboration and regular updates to ensure alignment and progress.
- Emphasized the necessity of balancing modeling and deployment tasks to meet project deadlines.

Points for Improvement

- Improve server performance by closing unnecessary tabs and processes to prevent crashes.
- Enhance the clarity and thoroughness of documentation, ensuring all steps, models, and configurations are well-documented and accessible.
- Improve time management and ensure all tasks are prioritized effectively to meet project deadlines.

Improved Points from Last Feedback

- Addressed and improved model robustness by ensuring no data leakage and refining the models.
- Enhanced documentation with updated learning logs, legal documentation, and model details.
- Progressed on legal documentation to ensure models meet required standards.
- This summary captures the key discussions, feedback, action points, reflections, and improvements from the meeting based on the provided transcript.

Summary

The team discussed the final steps for completing their project, including deployment, code cleaning, model comparison, and preparing for the presentation. They focused on ensuring all tasks are documented and dependencies are managed.

19/06/2024, Stand-up & Review meeting:

Feedback

- The team highlighted the need to ensure the code runs smoothly despite server issues. They discussed combining the code into a single notebook for easier management and comparison.
- Emphasis was placed on the importance of documenting the environment setup and package installations.
- There was a discussion about making the presentation concise and informative, ensuring all necessary information is included without overloading the audience.

Action Points

- Finalize the deployment setup, including resolving any issues with the server environment and package management.
- Document the environment setup using Poetry for package management.
- Collaboratively clean the code to ensure the final codebase is well-documented and adheres to coding standards.
- Combine all code into a single notebook for easier management.
- Compare different models and document the outcomes, ensuring the comparison is included in the final documentation and aligns with the assessment rubric.
- Perform XAI (Explainable AI) analysis for the selected model to ensure interpretability.

Presentation Preparation:

- Create a comprehensive and interactive presentation, including the problem statement, data, machine learning models, evaluation, and deployment.
- Ensure the presentation is concise and focuses on the most important aspects. Prepare to address potential questions with detailed documentation.

Final Meeting Preparation:

- Prepare for the final project retrospective meeting, set the time, date, and location, and create an agenda covering all necessary topics.
- Record the meeting for evidence and ensure it is shared with the mentor.

Reflections

- Recognized the importance of clear and comprehensive documentation to meet both legal and project requirements.
- Acknowledged the need for efficient collaboration and regular updates to ensure alignment and progress.
- Emphasized the necessity of balancing modelling and deployment tasks to meet project deadlines.

Points for Improvement

Improve server performance by closing unnecessary tabs and processes to prevent crashes.

Enhance the clarity and thoroughness of documentation, ensuring all steps, models, and configurations are well-documented and accessible.

Improve time management and ensure all tasks are prioritized effectively to meet project deadlines.

Improved Points from Last Feedback

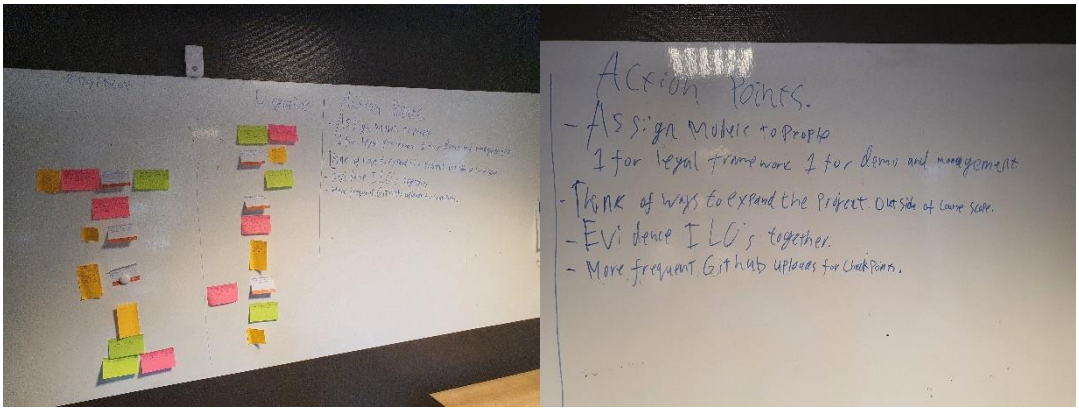
- Addressed and improved model robustness by ensuring no data leakage and refining the models.
- Enhanced documentation with updated learning logs, legal documentation, and model details.
- Progressed on legal documentation to ensure models meet required standards.

Summary of the Meeting

The team discussed the final steps for completing their project, including deployment, code cleaning, model comparison, and preparing for the presentation. They focused on ensuring all tasks are documented and dependencies are managed.

5 Retrospective Meetings

Retrospective Meeting 1



Positive Areas:

Our team collaborates effectively, with each member taking responsibility to work towards our shared goals. We document our progress in an organized manner using Trello, which keeps everyone informed and aligned. Team meetings have been instrumental in ensuring we are on the same page, helping each of us complete our tasks and understand each other's expectations. Our communication is strong, as we share both successes and seek help when needed.

Areas for Improvement:

There are a few areas where we can improve. Occasionally, we take on responsibilities meant for others, which can lead to an imbalance in workload. We would also benefit from better alignment between our DataCamp lectures and their immediate application, ensuring the material stays fresh in our minds. Additionally, the sharing of files can be somewhat chaotic, making it difficult to see what others have done. On an individual level, some of us need to update our ILOs and optimize our personal workflows.

Action Points:

Task Assignment:

Assign tasks for the upcoming week clearly. We will have two people working on machine learning models, one person managing overall coordination and assisting where needed, and one person starting on the legal framework.

Project Expansion:

If we find ourselves waiting for others to complete their tasks, we can consider ways to expand our project beyond its original scope. This approach ensures everyone has a fair share of work without overlapping responsibilities.

ILO Evidence:

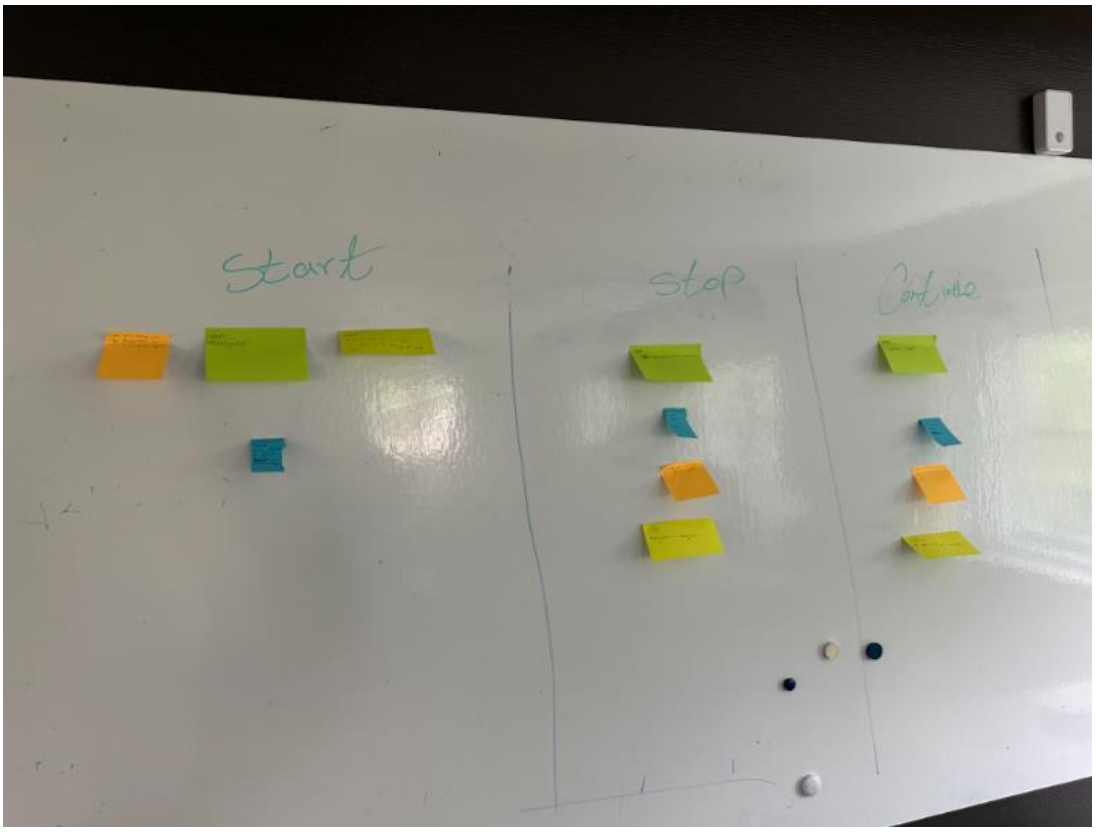
Collaboratively evidence our ILOs. We have already started on ILO 1, but we should continue to document our shared work, upload it to our group GitHub, and notify everyone about relevant files and their associated ILOs.

Frequent Updates:

To maintain a clear checkpoint system, we should upload our work to GitHub more frequently, ideally at the end of each day. This practice will help keep our progress organized and accessible to all team members.

Retrospective Meeting 2

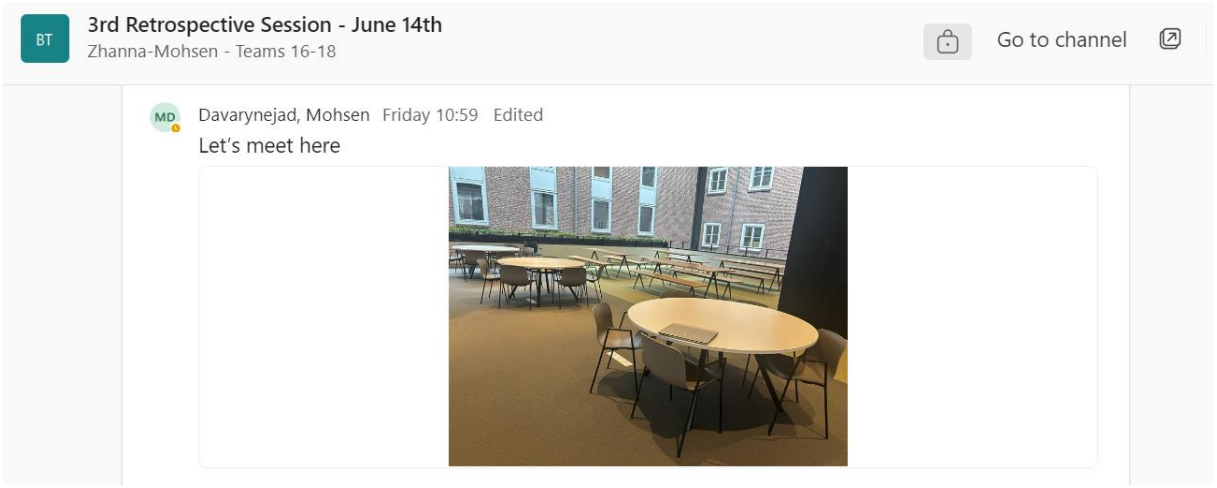
The Start-Stop-Continue retrospective is an action-oriented technique that quickly generates a list of practical ideas for continuous improvement. Focusing on the positive and changeable aspects, this retrospective is an essential tool for any Scrum Master or project manager.



Main takeaways from the retrospective meeting were discussed about the professional aspect of the project, the team mentioned that we must start work on new tasks in the deployment phase of the project due to delays and unexpected challenges related to the machine learning stage, to start dividing tasks and to finish the project few days before the deadline along with evidencing and documentation. The team mentioned to continue with committing and the good communication using the Trello board, Teams app and private chats. Stop was mentioned to several tasks related to the machine learning phase, the team have spent more than a week to iterate and figure out a good model that suit for the task project. In addition, personal topics were mentioned in the start-stop-continue retrospective meeting which won't be documented in this file.

Retrospective Meeting 3

The retrospective meeting cantered on gathering the team's opinions, feedback, and reflections regarding the outcomes and processes of previous retrospective meetings. During the discussion, we acknowledged that the team had not fully adhered to all the action points identified in the Start-Stop-Continue meeting. However, we recognized and celebrated significant progress made in key areas. Team members shared valuable insights on what worked well and where improvements are still needed, emphasizing the importance of continuous growth and adaptability. This honest feedback will help us refine our approach and enhance our overall effectiveness in future tasks.



Retrospective Meeting 4

Meeting plan:

Date: 20/6/2024

Time: 13:00 – 14:00

Location: MS Teams Application

Tool: Canva Presentation

Recording: Y1D - G18 - Final Retrospective.mp4

Agenda

- 13:00 - Start Opening
- 13:05 - Agenda and Meeting Plan Walkthrough

Capture project's key successes

- 13:15 – Identify the major successes achieved by the project
- 13:20 - Describe the factors that contributed to those successes
- 13:25 - Summarize project's key successes

Capture project's challenges and shortcomings

- 13:30 - Identify and describe each challenge faced by the project.
- 13:35 - Identify and list any tasks or decisions that were done incorrectly or poorly.
- 13:40 - Recommend solutions to each other.
- 13:45 – Summarize project's challenges and shortcomings

Summary

- 13:50 - Summarize overall project and discussion.
- 14:00 – End

Documentation of lessons learned and strategies for improvement in future projects will be summarized after the meeting and will be presented here.

Retrospective meeting content

Daria Vlăduţu:

Identify the major successes achieved by the project:

- Understood the iterative nature of the CRISP-DM cycle.
- Chose and trained an appropriate model based on the dataset and requirements.
- Learned how to organize and split tasks effectively.

Describe the factors that contributed to those successes:

- Team motivation and supportive environment.
- Desire to apply and retain the knowledge obtained during the year.

Identify and describe each challenge faced by the project:

- Time allocation: Difficulty in setting aside enough time for every task.
- Knowing when to stop: Struggled with stopping work on a task due to time constraints, even when there was potential for improvement.
- Being lost: Experienced confusion about where to start at times.

Identify and list any tasks or decisions that were done incorrectly or poorly:

- Occasionally, there was a lack of respect for each other's work ethic, leading to a shifting workload throughout the project.

Recommend solutions:

- Emphasize the importance of communication and respect for each other's abilities and limitations.

Mohamed Elshami

Identify the major successes achieved by the project:

- Effective data pre-processing steps saved time during model training.
- Achieved high accuracy for the model.
- Thorough documentation of each project phase.

Describe the factors that contributed to those successes:

- High-level planning and daily meetings.
- Clear objectives and overall management.
- Open communication within the team.

Identify and describe each challenge faced by the project:

- Faced challenges with the rain dataset.
- Models experienced overfitting.

Identify and list any tasks or decisions that were done incorrectly or poorly:

- Spent more time on models than expected.

Recommend solutions:

- Improve team communication to address issues promptly.

Peter Husen

Identify the major successes achieved by the project:

- Created a comprehensive legal framework adhering to the AI act.
- Maintained good team communication.

Describe the factors that contributed to those successes:

- Effective discussions with group members.
- Seeking and providing feedback to peers both in-person and via Teams.

Identify and describe each challenge faced by the project:

- Planning and task distribution were sometimes off.
- Lack of discussion on task completion methods led to significant changes over time.
- Some tasks were completed later than planned.

Identify and list any tasks or decisions that were done incorrectly or poorly:

- Incomplete markdowns on ML models.
- Waiting on others to finish tasks in weeks 5 and 6.
- Working on the same task simultaneously, such as with the Random Forest model.

Recommend solutions:

- Clearly discuss task assignments and expectations.
- Make more realistic time plans for task completion.

Ron Lev Tabuchov

Identify the major successes achieved by the project:

- Successfully found and utilized a good weather dataset (Open-Meteo).
- Effective data preprocessing for the third iteration of the Random Forest model.
- Achieved high accuracy with the Random Forest model.
- Maintained high-level documentation and evidence.
- Led task analysis and Trello board management.
- Led meetings effectively.

Describe the factors that contributed to those successes:

- Effective collaboration and clear communication among team members.
- Regular meetings and stand-up reviews.
- Iterative model development allowed for continuous improvements.
- Utilization of XAI techniques like LIME to understand model predictions.
- Detailed documentation of each step.

Identify and describe each challenge faced by the project:

- Data finding took longer than expected.
- The Random Forest model showed potential overfitting with high accuracy.
- Miscommunication and overlapping responsibilities led to inefficiencies.
- Server or kernel becoming unresponsive delayed progress.

Identify and list any tasks or decisions that were done incorrectly or poorly:

- Spent excessive time iterating on models and addressing overfitting concerns, delaying the transition to deployment.

Recommend solutions:

- Implement clearer task assignments and establish regular check-ins.
- Optimize code to reduce computational load or work on a better server.

During the final retrospective meeting, the team discussed the project's journey, reflecting on achievements and challenges encountered along the way. The discussion highlighted the successes, the factors contributing to these successes, and the challenges faced. The meeting was an opportunity to celebrate the project's accomplishments and identify areas for improvement in future projects.

Lessons Learned and Strategies for Improvement in Future Projects

Lessons Learned

Time Management and Organization:

- Effective time allocation is crucial for handling the various tasks within a project.
- Understanding the iterative nature of the CRISP-DM cycle and how to apply it consistently.

Teamwork and Communication:

- The importance of strong team collaboration and support.
- Clear and open communication helps in aligning goals and avoiding misunderstandings.

Model Development and Data Handling:

- Effective data preprocessing saves significant time during model training.
- Recognizing and addressing model overfitting to ensure accurate and reliable models.
- The value of thorough documentation for each phase to ensure clarity and legal compliance.

Task Distribution and Execution:

- Proper planning and distribution of tasks to ensure efficiency.
- The necessity of clear guidelines and expectations for task completion to avoid rework and delays.
- Strategies for Improvement

Enhancing Communication and Respect:

- Improve communication within the team, especially during critical phases like model building.
- Respect each other's work ethic, abilities, and limitations to prevent workload shifting and conflicts.

Improving Time Management:

- Develop and adhere to better time management strategies to allocate sufficient time for all tasks.
- Set clear stopping points for iterative tasks to avoid unnecessary extensions and focus on project completion.

Focusing on Key Models and Tasks:

- Focus on fewer models initially and iterate more effectively to manage time better.
- Ensure that the objectives and tasks are clear and well-planned to avoid overextending modelling phases.

Task Assignment and Monitoring:

- Implement clearer task assignments and establish regular check-ins to track progress and ensure timely completion.
- Utilize project management tools like Trello to monitor task progress and prevent overlapping responsibilities.

Optimizing Technical Processes:

- Optimize code to reduce computational load and improve server performance.
- Consider working on better servers or optimizing existing resources to enhance computational efficiency.

Documentation and Legal Compliance:

- Maintain detailed documentation of each step in the project to ensure clarity and compliance.
- Regularly review and update documentation to adhere to legal standards and ensure thorough record-keeping.

6 Presences Table

Week 4: Data

	Mohamed	Peter	Daria	Ron	Mentor
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					

Week 5: Machine Learning & Legal Framework

	Mohamed	Peter	Daria	Ron	Mentor
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					

Week 6: Iteration & Interface Design

	Mohamed	Peter	Daria	Ron	Mentor
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					

Week 7: Deployment & Presentation

	Mohamed	Peter	Daria	Ron	Mentor
Monday					
Tuesday					
Wednesday					
Thursday	Final Retrospective				
Friday	Presentation				

7 Peer Feedback Form

Ron Lev Tabuchov:

Final Score

Field	Min	Max	Mean	Median	Standard Deviation	Variance	Responses	Sum
Score	6.50	7.00	6.83	7.00	0.24	0.06	3	20.50

I appreciate hard work and dedication, and I'm happy to see that my team value my efforts to deliver high-quality results in this project. The score reflects my collective commitment to excellence and the team shared goal of continuous improvement. It’s encouraging to see such positive feedback, and it motivates me to keep pushing for even better outcomes. I believe that our collaboration and support are key to our success.

Peter Husen:

Final Score

Field	Min	Max	Mean	Median	Standard Deviation	Variance	Responses	Sum
Score	4.00	6.00	5.17	5.50	0.85	0.72	3	15.50

I scored maximum points on team participation, so I should just keep this level up.
I had 1 maximum and 2 good ratings on professional behaviour, for this I could aim to improve the way I work with the team.
Team support I had 3 good ratings but no maximum ratings, I could approach my team more to see if I can support them with their tasks.
Developmental feedback I had 1 maximum and 2 good ratings. I haven't really asked for feedback on the work I did all that much so I could do that more, to see if the team agrees with what I have done or if they would like to see things differently.
Role fulfilment I have 2 maximum and 1 good rating. I could slightly improve here by perhaps pushing things faster and asking for feedback.
Team communication I have 2 maximum and 1 good rating. I think the good rating is because I was sometimes slow with asking things of my team.
Action points: Engage more with the team by asking for feedback on my work and ask to review their work or assist them with their tasks.

Daria Vlăduţu:

Final Score

Field	Min	Max	Mean	Median	Standard Deviation	Variance	Responses	Sum
Score	3.00	6.00	4.83	5.50	1.31	1.72	3	14.50

Following the peer review results, I have concluded that I need to give my input even more than before when it comes to teamwork. Although I am overall satisfied with the final score that my teammates have given me, there is always room for improvement, especially in the Team Support category, which had the worst results of them all. Additionally, I must learn to give and ask for more feedback when it comes to individual workload. On the positive side, I have fulfilled my roles (data scientist, UI designer, etc.) in the team appropriately and I have been participating in almost all activities. Overall, this opportunity to work with such intelligent people has helped me develop my work ethic even more.

Mohamed Khaled Ahmed Mohamed Elshami Mohamed:

Final Score

Field	Min	Max	Mean	Median	Standard Deviation	Variance	Responses	Sum
Score	1.00	5.00	3.33	4.00	1.70	2.89	3	10.00

To enhance my performance and positively impact my team's success, I will focus on increasing proactive engagement by actively participating in meetings and regularly communicating my progress and challenges. I will improve my time management to ensure tasks are completed on or before deadlines and clarify expectations with my team. I will actively support my teammates by helping when my tasks are done.

8 Contribution Table

The given contribution table provides general information related to tasks, topics, and team member's contributions. In addition, contributions can be seen in GitHub and Trello.

Task	**Mohamed**	**Peter**	**Daria**	**Ron**
Proposal	Business Research Documentation Presentation	Law Research Documentation Presentation	Data Research Documentation Presentation	ML Research Documentation Presentation
Data Preprocessing	KNMI	BRON	ANWB	OPEN-METEO
Machine Learning	K-MEANS DNN	Documentation, Review Feedback	Decision Trees Model Comparison	Random Forest XAI
Legal Framework	Individual tasks, review and comparison	Individual tasks comparison deep research Documentation	Individual tasks, review comparison	Individual tasks and comparison Documentation
Interface Design	Figma Base Version A/B Survey	Feedback Review	Figma A & B Design	Feedback Review
Deployment	Code Cleaning	Unit Testing	Virtual Environment	Virtual Environment Coverage %
Final Presentation	Business Value Problem Statement	Legal EU AI Act	Data Analysis Preprocessing Interface Design	Documentation- Display ML

9 Summary & Conclusion

The project aimed to improve road safety in Breda using machine learning models. The team successfully developed and validated multiple models, effectively pre-processed data, and maintained robust legal compliance. Despite challenges such as data handling issues, model overfitting, and occasional miscommunication, the team managed to deliver a high-quality project through effective collaboration and continuous improvement. The lessons learned and strategies for improvement identified during the retrospective meeting will guide future projects, ensuring better time management, clearer communication, and more efficient workflows.