TAXI APPLICATION

1. Project Overview

The goal of the project is to develop a taxi booking application similar to Uber, with web client (Angular), server (Java Spring Boot) and Android mobile application, following the specification provided in the project assignment.

The system supports four main user types (unregistered users, registered users, drivers, administrators) and must implement functionalities such as ride ordering, scheduling, live tracking on the map, PANIC button, ride history, reports, live support chat, blocking users and others, in line with the functional and non-functional requirements.

2. Team and Roles

Team members:

- Student1 – Dražen Božić SV56/2023
- Student2 – Nikola Stevanović SV71/2023
- Student3 – Dejan Ostojić SV3/2023

Agile roles:

- **Product Owner (PO) –** responsible for product vision, maintaining and prioritising the Product Backlog, and defining Sprint Goals.
- **Scrum Master (SM) –** responsible for facilitating Scrum events, removing impediments, and ensuring the team follows the agreed process.
- **Development Team –** all three students collaborate on analysis, design, implementation, testing, and documentation.

All three students are always part of the Development Team. PO and SM rotate weekly, as required.

3. Weekly Role Rotation Plan

The table below shows the initial rotation plan for Product Owner and Scrum Master roles. This plan can be adjusted later based on team agreement and workload.

Week	Dates	Product Owner	Scrum Master	Development Team
1	08.12.2025 – 11.12.2025	Student1	Student2	Student1, Student2, Student3

2	12.12.2025 – 18.12.2025	Student2	Student3	Student1, Student2, Student3
3	19.12.2025 – 25.12.2025	Student3	Student1	Student1, Student2, Student3
4	26.12.2025 – 01.01.2026	Student1	Student2	Student1, Student2, Student3
5	02.01.2026 – 08.01.2026	Student2	Student3	Student1, Student2, Student3
6	09.01.2026 – 15.01.2026	Student3	Student1	Student1, Student2, Student3
7	16.01.2026 – 22.01.2026	Student1	Student2	Student1, Student2, Student3
8	23.01.2026 – 29.01.2026	Student2	Student3	Student1, Student2, Student3
9	30.01.2026 – 05.02.2026	Student3	Student1	Student1, Student2, Student3
10	06.02.2026 – 12.02.2026	Student1	Student2	Student1, Student2, Student3

4. Weekly Work Plan and Goals

Week 1 (08.12.2025 – 11.12.2025)

Main focus: Project initiation & planning

Planned activities:

- Understand and review the complete project specification for all courses (ISS, IKS, MA, MRS, TS).

- Define system architecture (client, server, mobile layers).
- Create and configure tools: Trello board and Git repository.
- Define initial Product Backlog: epic-level stories for main modules (authentication, profiles, ride management, maps, notifications, reports, chat, admin features).
- Plan work for Week 2 (refine tasks based on upcoming IKS KT1 and ISS/MA KT1 dates).

Artifacts:

- Initial Product Backlog (in Trello).
- High-level architecture diagram.
- Initial MRS document (this document).

Week 2 (12.12.2025 – 18.12.2025)

Main focus: UI/UX design & basic GUI skeletons (IKS & MA KT1 preparation)

Planned activities:

- Design Figma mockups for at least 50% of each student's functionalities, as required for IKS KT1.
- Implement basic Angular structure: main layout and navigation bar, routing between initial pages (login, registration, profile, driver history, etc.).
- Start Android project: basic activity structure and simple navigation that matches web design guidelines.
- Agree on global styles (colors, fonts, components) to be consistent across Angular and Android.
- Update Trello with more detailed tasks (split epics into user stories).

Artifacts:

- Figma design file with main screens.
- Angular project initialized with routing and basic components.
- Android project initialized with placeholder screens.
- Updated Product Backlog with user stories for KT1.

Week 3 (19.12.2025 – 25.12.2025)

Main focus: IKS KT1, ISS KT1, MA KT1 – UI & controllers

Control points this week:

- IKS KT1 (22–23.12.2025) – UI only for specified functionalities.
- ISS KT1 (29.12.2025) – all controller classes with endpoints.
- MA KT1 (30.12.2025) – GUI for specified mobile functionalities.

Planned activities:

- Finalise Angular UI for login & registration, basic profile (view & edit form), driver's ride history overview, and navigation bar.
- Implement server-side controller classes (Spring Boot): create REST controllers and endpoints according to the specification (no full business logic yet for KT1).
- Finalise Android GUI: implement screens for login, registration, profile, driver history, and global navigation.
- Prepare short demo scenarios and a 5–7 minute video for KT presentations.
- Conduct internal Sprint Review and Sprint Retrospective.

Artifacts:

- Running Angular app with designed screens.
- Spring Boot controllers created and exposed.
- Running Android app with GUI screens.
- KT1 demo video draft.

Week 4 (26.12.2025 – 01.01.2026)

Main focus: Feedback handling & start of full functionality (KT2 foundations)

Planned activities:

- Collect and analyse feedback from ISS KT1, IKS KT1 and MA KT1.
- Refine Product Backlog and update user stories and acceptance criteria based on feedback.
- Start implementing business logic and persistence in Spring Boot for KT2 functionalities.
- Start connecting Angular UI with server API for the first simple flows (e.g. registration, login).
- Define initial testing strategy: unit tests (JUnit, Jasmine) and E2E testing plan with Selenium.
- Set up database and basic schema.

Artifacts:

- Updated Backlog with refined stories and priorities.
- First working end-to-end flow (even if partial).
- Initial unit test classes and configuration.

Week 5 (02.01.2026 – 08.01.2026)

Main focus: Core features implementation & integration

Planned activities:

- Continue implementation of KT2 functionalities for ISS: ride ordering, scheduling, driver assignment rules, profile updates, favourites, etc.

- Extend Angular client integration: forms validation and real communication with backend for main use cases.
- Extend Android app: align navigation and screens with current backend API design.
- Prepare and update Burndown chart for the sprint and global project progress.
- Prepare MRS documentation structure for KT1 (templates for sprint review, retrospective, etc.).

Artifacts:

- Working backend logic for several core use cases.
- Client-side integration for these use cases.
- Updated Burndown chart.
- Draft versions of MRS documents (Sprint Review, Sprint Retrospective templates).

Week 6 (09.01.2026 – 15.01.2026)

Main focus: Vertical slice & MRS KT1

Planned activities:

- Implement at least one complete vertical slice: user registers, logs in, orders a ride, sees driver assignment, and views ride status.
- Finalise and clean up controllers and client components for the vertical slice.
- Prepare and submit Sprint Review document for the current sprint.
- Prepare Sprint Retrospective document.
- Update Burndown chart showing team progress against planned tasks (for MRS KT1).
- Update introductory project plan document if necessary.

Artifacts:

- Fully working vertical slice scenario.
- MRS KT1 documentation (review, retrospective, burndown).

Week 7 (16.01.2026 – 22.01.2026)

Main focus: Stabilisation & KT2 preparation (ISS & IKS)

Planned activities:

- Continue implementation of all ISS KT2 functionalities assigned to each student.
- Finalise IKS KT2 functionalities: ensure that previously created UI is now fully connected to backend and functional.
- Improve error handling, validations, and edge case scenarios.
- Write additional unit and integration tests.
- Prepare KT2 demo scenarios and start recording video segments.

Artifacts:

- All KT2 functionalities mostly implemented and tested locally.
- Extended test coverage.
- Updated backlog (remaining tasks clearly visible).

Week 8 (23.01.2026 – 29.01.2026)

Main focus: ISS KT2, IKS KT2, start advanced features & MA KT2 work

Planned activities:

- Final testing and bug fixing before KT2 demos for ISS and IKS.
- Record / finalise KT2 demo video (5–7 minutes) for IKS/ISS.
- Start implementing reports and analytics (graphs, statistics).
- Start implementing live support chat and blocking users in backend and client.
- Extend Android app with more advanced flows (ride list/history, basic ride ordering interface, navigation updates).

Artifacts:

- Passed KT2 (ISS/IKS) or prepared to quickly fix feedback.
- First versions of reports, chat, and admin-related features.
- More advanced Android screens.

Week 9 (30.01.2026 – 05.02.2026)

Main focus: Mobile app completion & polishing

Planned activities:

- Work on MA KT2 requirements – implement mobile functionalities completely (aligned with server API).
- Implement notifications on Android and connect them with backend-stored notifications.
- Improve UI/UX across web and mobile: consistent styles, icons, and interactions.
- Perform broader E2E tests (web and mobile) for main user roles.
- Prepare second Sprint Review and Retrospective documents for MRS (covering the period between KT1 and KT2).

Artifacts:

- Fully functional Android app for main use cases.
- Stable and polished web application.
- MRS Sprint Review and Retrospective (for this period).

Week 10 (06.02.2026 – 12.02.2026)

Main focus: Finalisation, MA KT2, MRS KT2 & documentation

Planned activities:

- Final testing, bug fixing and optimisation before final control points.
- Ensure all acceptance criteria for all tasks are clearly satisfied and documented.
- Finalise all MRS documents: updated introductory plan, all Sprint Reviews and Retrospectives, and final Burndown chart.
- Prepare final demo video(s) showing full functionality of the system.

Artifacts:

- Stable versions of server, web client and mobile application.
- Complete MRS documentation for KT2.
- Final demo materials.