PROJECT CHARTER

1. General Project Information	
Project Name:	**AI-Driven OTC Medicine Vending Machines in Latvia**
Executive Sponsors:	
Department Sponsor:	
Impact of project:	This project explores how artificial intelligence and data analytics can improve access to over the counter (OTC) medicines in Latvia, especially in regions without 24/7 pharmacies. Although implemented as a research prototype, the project demonstrates how automated vending machines could be safely planned, monitored, and regulated in the future.

2. Project Team

	Name	Student code	Role
Project Manager:	Sanita Šulca	**st89060**	Product & Domain Lead
Team Members:	Vita Maurīte	**st89344**	Data Engineer
	Mostafa Salem	**st91304**	Data Scientist
	Toufic Jandah	**st88601**	App and Chatbot Developer
	Joanns Engels	**st88578**	Monitoring & Visualization Engineer (Predictive Maintenance)

3. Stakeholders ***(e.g., those with a significant interest in or who will be significantly affected by this project)***

Project team members

Public health authorities (conceptual / simulated)

Future users in regions without 24/7 pharmacy access (simulated stakeholders)

4. Project Scope Statement

Project Purpose / Business Justification *Describe the business need this project addresses*

Access to OTC medicines in Latvia is limited outside pharmacy working hours, particularly in rural areas. This project investigates whether an AI-based planning and monitoring system could support safe and regulated deployment of OTC vending machines, if legal conditions were to change.

Objectives (in business terms) *Describe the measurable outcomes of the project, e.g., reduce cost by xxxx or increase quality to yyyy*

- Accessibility: Assess population distribution and accessibility gaps across regions to recommend optimal OTC-VMs locations.
- Safety and Compliance: Restrict sales to approved OTC categories, separate adult and child products, and limit "1 package per medicine group per 24 hours."
- Efficiency: Forecast demand, rack stock and expiry, and schedule refills.
- User Guidance: Develop an AI chatbot to suggest suitable OTC categories based on symptoms while displaying safety disclaimers.
- Monitoring and Maintenance: Implement dashboards for stock control and predictive maintenance of OTC-VMs.

Deliverables *List the high-level "products" to be created (e.g., improved xxxx process, employee manual on yyyy)*

- Distribution Map: Interactive map showing optimal 50 vending machine locations across Latvia.
- AI Models: Predict demand, stock refill needs, and maintenance schedules.
- AI bilingual chatbot for symptom-based guidance (non-diagnostic)
- Dashboard: Visualises stock levels, expiry dates, and key performance metrics.
- Legal, ethical, and compliance analysis
- Project documentation and GitHub portfolio

Scope *List what the project will and will not address (e.g., this project addresses units that report into the Office of Executive Vice President. Units that report into the Provosts Office are not included)*

Included:

- **Data Collection:** Open data statistics and registries.
- **Model Development:** Placement and demand forecasting.
- **Prototype:** Web dashboard and chatbot interface.
- **Maintenance:** Predictive maintenance simulation.
- **Compliance:** Ethical, legal, and privacy review.

Not Included:

- **Prescription Medicines:** Excludes all prescription-only products.
- **System Integration:** No connection to live payment or pharmacy databases.
- **Hardware Deployment:** Does not include installation of physical OTC-VMs.
- **Medical Functions:** No diagnostic or treatment capabilities.

Project Milestones *Propose start and end dates for Project Phases (e.g., Inception, Planning, Construction, Delivery) and other major milestones*

Phase	Start Date	End Date	Milestone Description
Inception	13.10.2025	16.10.2025	Project idea proposed and approved; initial problem definition, feasibility discussion, and team formation completed.
Planning	17.10.2025	22.10.2025	Project scope defined, roles assigned, methodology selected (Data-Driven Scrum), initial risks identified, and project proposal finalized.
Design	23.10.2025	01.11.2025	System architecture, data sources, AI models, chatbot logic, and legal/ethical framework designed.
Development	02.11.2025	01.12.2025	Core system components developed: placement model, forecasting logic, chatbot prototype, dashboard, and data pipelines.
Testing	02.12.2025	10.12.2025	Functional testing of models, chatbot validation, system integration checks, and refinement based on test results.
Documentation & Final Delivery	11.12.2025	18.12.2025	Final documentation, GitHub portfolio completion, presentation preparation, and project submission.

Major Known Risks (including significant Assumptions) *Identify obstacles that may cause the project to fail.*

Risk	Impact	Mitigation Strategy
Limited or incomplete public data	Medium	Use synthetic / simulated data aligned with known statistics.
Regulatory restrictions on OTC sales	High	Strictly adhere to the official Latvian OTC list; legal review.
Forecast model under performance	Medium	Iterate with multiple algorithms and cross validation
Overlapping tasks or coordination delays	Medium	Weekly DDS review meetings and shared board updates.
Time constrains near deadline	High	Prioritize core deliverables (placement +forecasting) before advanced features.

Constraints *List any conditions that may limit the project team's options with respect to resources, personnel, or schedule (e.g., predetermined budget or project end date, limit on number of staff that may be assigned to the project).*

- Fixed academic deadline: **18.12.2025**
- No budget for real deployment
- Limited access to real pharmaceutical data
- Legal restrictions preventing real implementation

External Dependencies *Will project success depend on coordination of efforts between the project team and one or more other individuals or groups? Has everyone involved agreed to this interaction?*

- Public statistics from Latvian authorities
- Legal texts and regulatory documents
- Team member availability and coordination
- All dependencies are acknowledged as simulated or academic.

5. Communication Strategy *(specify how the project manager will communicate to the Executive Sponsor, Project Team members and Stakeholders, e.g., frequency of status reports, frequency of Project Team meetings, etc.*

- Weekly project meetings (online / in-person)
- GitHub Issues and Kanban board for task tracking
- Shared documentation via GitHub repository
- Ad-hoc messaging for coordination and problem solving

6. Sign-off

	Name	Signature	Date (DD.MM.YYYY)
	Sanita Šulca		

7. Notes

This project charter supports an academic research prototype. All system components are designed for learning, experimentation, and policy discussion rather than real-world deployment.