Green Cycle - Project Charter

Group Composition

Members:

- Boris Marinković *(89231130)*
- Janko Kondić *(89221073)*
- Nikola Gostovikj *(89231044)*

Github Repository: https://github.com/jankokondic/green-cycle

1. Project Name

Green Cycle, a web platform for sharing and discovering upcycling projects.

2. Project Client

- The Project Management Team *(8. Project Management Team)*
- IT Management course, academic year 2025/2026

3. Document Version

Version 1.0 (February 2026)

4. Project Description

Green Cycle is a web platform that connects people by making it easy to share, discover, and discuss upcycling projects. The main idea behind the project is simple, instead of throwing things away, people can find step-by-step guides on how to repurpose everyday items, posted by other community members.

The information about upcycling is scattered all over the internet (e.g. Reddit threads, Instagram posts) with no consistent quality, structure, or community around it. This is a serious problem for beginners, who feel lost in all that information. That is the key problem that this platform is trying to solve. Green Cycle brings this all into one place with a clean interface, structured project submissions, and basic social features like comments, private messages, and achievement badges.

The target groups for this platform are eco-conscious individuals, teachers, and small eco-businesses.

5. Purpose and Objectives

The goal is to deliver a functional, deployable web platform with the following features:

- Users can register, log in, and manage their profiles.
- Users can post upcycling projects with materials, instructions, and difficulty levels.
- Users can browse, search, and filter projects.
- Users can comment, report inappropriate content, and message each other.
- Moderators can manage reports and delete inappropriate content.
- Admins can manage users, roles, materials, and achievements.
- The system awards points and achievements based on user activity.

6. Requirements of the Contracting Authority

6.1. Description of the Methodology

An iterative development approach must be applied, it is expected that working increments should be delivered at the end of each phase. Each phase should end with a review meeting where the client confirms the correctness of the deliverables before the next phase begins. Usage of version control (e.g. Git) is expected throughout the entire development process.

6.2. Techniques and Technologies Used

The platform should be built as a web application using the following technologies:

- Frontend: React,
- Backend: Node.js,
- Database: PostgreSQL.

All of the tools and frameworks mentioned are free and open-source, meaning that no software licenses are needed.

6.3. Spatial and Working conditions

The project should be developed and managed remotely. There is no requirement to work on-site. Communication will be conducted online. A weekly short status update is expected during the phase of development.

6.4. Description of the Finished Product

The finished product must be a fully functional, deployed web platform. The platform must fulfill all of the objectives mentioned in section *5. Purpose and Objectives*. The existence of errors is always possible with software products, thus the tolerance for that must exist. That means that the final version of the web platform can be

published with a list of known bugs that are expected to be fixed as soon as possible. However, none of those should be catastrophic, only minor bugs are allowed.

The platform must be accessible from any modern desktop browser and must include a complete setup and usage documentation.

6.5. Reporting and Final Report

The development team is expected to submit a brief written progress report at the end of each development phase. The final report must include a summary of all implemented features, known limitations and errors, and instructions for deployment and maintenance. Source code that contains meaningful comments is required as part of the final delivery.

7. Project Limitations

7.1. Rough Schedule

The total project duration is 4 months from the date the contract is signed and the specifications are finalized.

7.2. Available Funds

The available budget is €3,000 reserved for the development team. Hosting costs are estimated at around €20/month and will be covered separately by the client.

7.3. Phases of Project Implementation

The project is divided into four phases:

1. Database schema, backend structure, management of user roles and permissions.
2. Implementation of the primary features (project creation and management, material management, search and filtering).
3. Implementation of social (secondary) features (comments, private messaging, achievements, content reporting).
4. Testing, bug fixes, deployment, documentation.

7.4. Milestones - Dates Required

Milestone	Deadline
Backend Architecture	End of March
Primary Features	End of April
Secondary Features	End of May
Delivery	End of June

8. Project Management Team

The project will be managed by the following team:

- Boris Marinković
- Janko Kondić
- Nikola Gostovikj

9. Risk Assessment

Risk	Likelihood	Impact	Solution
Addition of features during development	Medium	High	Specifications of features are defined in contract and cannot be changed.
Performance issues	Low	Medium	Load testing must be performed before final delivery.
Security vulnerabilities	Low	High	Reviews of source code changes must be strict.

Date of order: February 2026

Client Signatures:

B. Marinković

J. Kondić

N. Gostovikj