Bil482 - Project Plan Document: Wi$h Li$t

Contributors:

Akif Emre Reis
Alaaddin Gürsoy
Elif Serra Öncü
Gizem Elif Bayar

Department of Computer Engineering
TOBB University of Economics & Technology

Spring 2026

Table of Contents

1. Project Scope

This section establishes the boundaries of the project, detailing exactly what will be delivered and what is out of scope to prevent scope creep.

In Scope (What is included)

- **User Features:**
  - Adding products to a wishlist via product links.
  - Creating custom categories and using predefined ones (e.g., clothing, cosmetics, home).
  - Assigning priority levels to products to indicate purchase intent.
  - Managing product lifecycle (moving to Purchased/Abandoned or deleting).
- **System Features:**
  - Automated price retrieval via web scraping where available.
  - Manual price entry for products where scraping is not possible.
  - Image uploading or manual addition when scraping fails.
  - Periodic price checks and automated user notifications for price changes.
  - Visualizing price history trends via graphs.

Out of Scope (What is NOT included)

- **Commerce Features:** Direct purchasing, checkout functionality, or payment processing.
- **Inventory & Ads:** Real-time inventory/stock tracking, affiliate marketing, or advertisements.
- **Social & Legal:** Displaying reviews/ratings, legal compliance for third-party scraping, or seller reputation.
- **Advanced Comparison:** Price comparison across multiple sellers for the same product.
- **Guarantees:** Guaranteeing scraping availability for all websites (dependent on external site structures).

2. Project Organization - People

The team consists of four contributors. Roles are assigned based on the Task Matrix provided.

Team Member	Role	Primary Responsibilities

Akif Emre Reis	QA Lead & Developer	Target audience analysis, feature definition, end-to-end review, and testing coordination.
Alaaddin Gürsoy	Project Manager & Developer	Project definition, summary, end-to-end review, and ensuring core feature delivery.
Elif Serra Öncü	Tech Lead & Developer	Architecture design, Objectives & Scope definition, and technical implementation.
Gizem Elif Bayar	Documentation Lead & Developer	Deliverables definition, success criteria, reporting, and final document consolidation.

3. Execution & Management Objectives

These objectives focus on *how* the project will be managed and delivered, separate from the product goals.

1. **Centralized Development:** Establish a single source code repository with clean architecture by the end of the Design phase.
2. **Timely Delivery:** complete all "Core Feature" deliverables (wishlist, scraping, notifications) before the final demonstration date.
3. **Quality Assurance:** Achieve a system reliability state where scheduled price checks run without critical failures during the testing phase.
4. **User Validation:** Ensure the UI/UX meets the criteria where 80% of test users can perform core tasks (add product, view history) without guidance.

4. Key Phases and Timeline

This simple Gantt-style timeline outlines the project lifecycle.

Phase	Estimated Duration	Description	Key Deliverables

1. Requirements & Planning	Weeks 1	Defining scope, objectives, and assigning tasks.	Project Definition Document, Task Matrix.
2. Design	Weeks 2	Designing system architecture, database schema, and UI mockups.	Database Schema (ER Diagram), Architecture Doc.
3. Development	Weeks 3-7	Coding the web application, implementing scraping logic, and frontend.	Functional Web App, Source Code Repository.
4. Testing & QA	Weeks 8	Integration testing, scraping reliability checks, and user testing.	Test Results, "80% Usability" Verification.
5. Deployment & Demo	Week 9	Final deployment and preparation for the live presentation.	Live Demonstration, Presentation Slides.
6. Closure	Week 10	Final project evaluation and report submission.	Final Project Documentation.

- **Project Start Date:** 26 Oca 2026-2 Şub 2026
- **Target Demo Date:** 23 Mar 2026-29 Mar 2026
- **Project Evaluation Date:** 30 Mar 2026-5 Nis 2026

5. Resource Planning

Resources required to execute the Wi$h Li$t project:

- **Development Tools:** IDEs (VS Code, IntelliJ), Git for version control.

- **Web Application Framework:** (e.g., React, Angular, or Vue for frontend; Node.js, Python/Django for backend) - *To be selected by Tech Lead*.
- **Database:** SQL or NoSQL database to store products, user data, and price history.
- **Scraping Libraries:** Libraries such as BeautifulSoup, Selenium, or Puppeteer for extracting price data.
- **Hosting/Infrastructure:** Local servers for development; potential cloud hosting (e.g., Heroku, Vercel, AWS Free Tier) for the demo.

6. Risk Management

Potential risks and mitigation strategies:

- **Risk: Anti-Scraping Mechanisms.** Target websites may block scrapers or CAPTCHA may prevent automated price checks.
    - *Mitigation:* Implement fallback to "Manual Price Entry" and use rotating user agents or headless browsers.
- **Risk: DOM Structure Changes.** E-commerce sites often change their layout, breaking scrapers.
    - *Mitigation:* Design modular scrapers that are easy to update; rely on manual entry if a site breaks temporarily.
- **Risk: Scope Creep.** Adding too many features (e.g., complex analytics) might delay core delivery.
    - *Mitigation:* Strictly adhere to the "Out of Scope" list (e.g., no payments, no real-time stock).
- **Risk: Data Overload.** Storing price history for every minute could crash the database.
    - *Mitigation:* Limit price checks to specific intervals (e.g., daily) to manage database load.

7. Communication Plan

- **Weekly Stand-ups:** Brief meetings to review the Task Matrix progress and resolve blockers.
- **Collaboration Tools:** Discord/Slack for daily chat; GitHub/GitLab for code reviews and issue tracking.

8. Change Management Plan

Process for managing changes to the agreed scope:

1. **Request:** Any team member proposing a change (e.g., adding a new category feature) must document the benefit and cost.
2. **Review:** The team members will evaluate pros and cons then will give a decision.
3. **Decision:** Changes are only approved if they do not jeopardize the "Core Feature Completion" success criteria.
4. **Update:** If approved, the Project Definition Document and Task Matrix are updated immediately.

9. Budget Plan (Effort Allocation)

As this is an academic/term project, the "budget" is defined by **team effort (man-hours)** rather than currency.

- **Planning & Design (20%):** High initial investment to ensure the database schema and scraping architecture are solid.
- **Development (50%):** The effort goes into backend logic (scraping, notifications) and frontend integration.
- **Testing & Refinement (20%):** Dedicated time to ensure scraped data is accurate and the UI is usable.
- **Documentation & Demo Prep (10%):** Finalizing the report and rehearsing the live demo.

10. Acceptance Tests and Criteria

To consider the project "Complete," the following criteria must be met based on the Success Criteria section:

ID	Test Scenario	Acceptance Criteria
AT-01	**Add Product via Link**	User pastes a URL; system scrapes title/price. If scraping fails, the system prompts for manual entry.
AT-02	**Price Change Detection**	The system detects a price change (simulated or real) and triggers a notification to the user.
AT-03	**History Visualization**	The user opens a product detail page; a graph accurately plots at least two different price points over time.
AT-04	**Usability Test**	A new user can create a category and add a product to it within 2 minutes without asking for help.
AT-05	**Reliability Check**	The scheduled price-check job runs on a set of 10 test products without crashing or timing out.

Task Matrix

Tasks	Akif Emre Reis	Alaaddin Gürsoy	Elif Serra Öncü	Gizem Elif Bayar
Project Scope			✓	✓
Project Organization - People	✓		✓	
Execution & Management Objectives		✓		
Key Phases and Timeline		✓		
Resource Planning	✓			
Risk Management			✓	

Communication Plan				✓
Change Management Plan		✓		
Budget Plan (Effort Allocation)				✓
Acceptance Tests and Criteria	✓	✓		
End-to-end document review and conflict resolution	✓	✓	✓	✓