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

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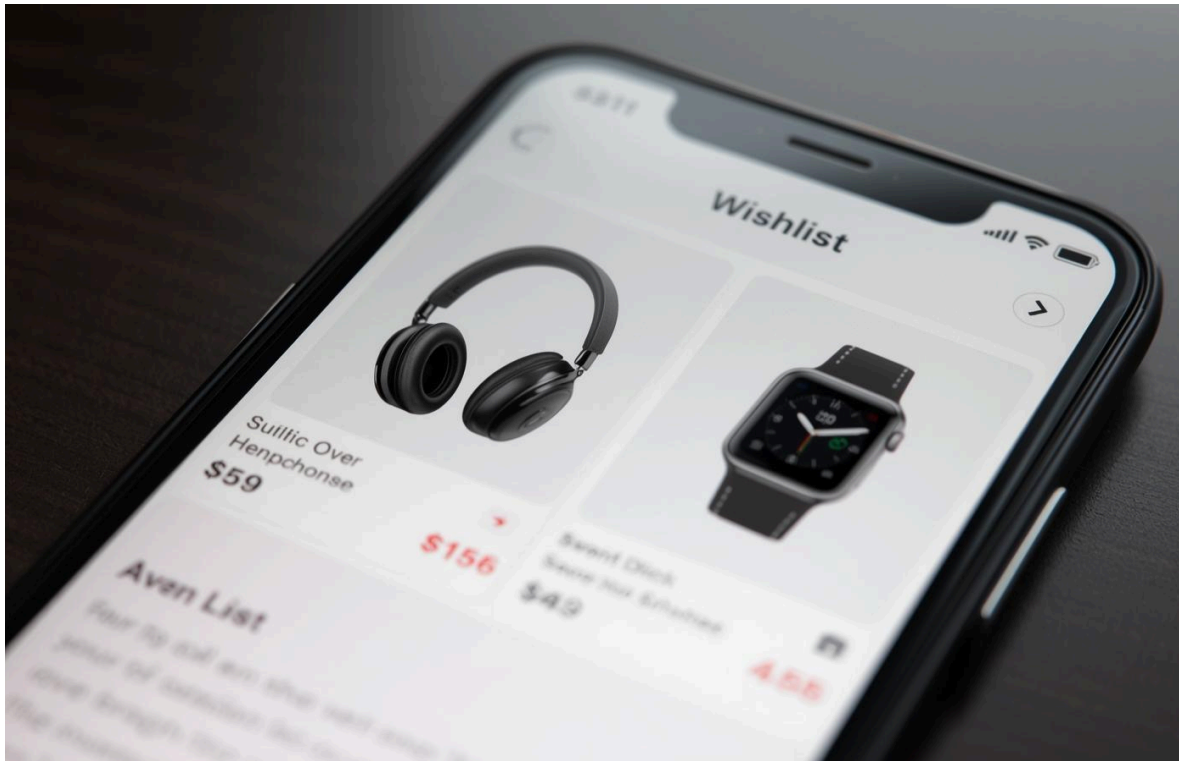Department of Computer Engineering
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1. Project Name: Wi$h Li$t

2. Project Summary:

This project is a wishlist and price-tracking web application that allows users to save products, monitor their prices over time, and receive notifications when prices change. It solves the problem of manually tracking price fluctuations across different products and platforms, helping users make informed and timely purchasing decisions. Its main purpose is to simplify purchase planning by combining product organization, automated price monitoring, and decision support in a single system.

3. Objectives:

By the end of this project, the goal is to provide users with a single centralized platform where they can collect all the products they want to purchase from different websites, track their prices over time, and receive updates on price changes. The project aims to prevent users from losing track of products across multiple platforms, simplify price monitoring, and support smarter purchasing decisions by making product tracking and comparison effortless.
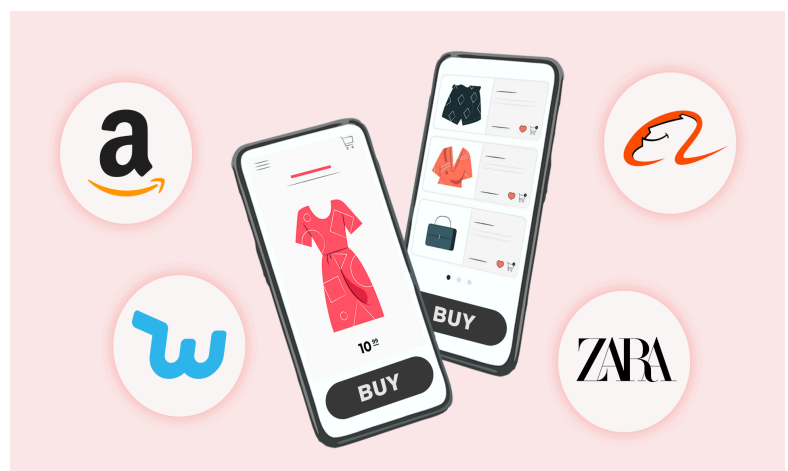
4. Scope:

What is included?	What is NOT included?
Creating custom categories and using predefined categories (e.g., clothing, cosmetics, home).	Direct purchasing or checkout functionality.
Adding products to a wishlist by providing a product link.	Payment processing or integration with any payment gateway.
Automatically retrieving price information via web scraping when available; otherwise allowing manual price entry.	Displaying product reviews, ratings, or seller reputation.
Uploading or manually adding product images when scraping is not possible.	Price comparison across multiple sellers or platforms for the same product.
Assigning priority levels to products to indicate purchase intent.	Guaranteeing scraping availability for all websites (scraping depends on site structure and accessibility).
Periodically checking product prices and notifying users when a price increase or decrease is detected.	Legal or compliance handling related to third-party website scraping.
Enabling or disabling price notifications on a per-product basis.	Affiliate marketing, advertisements, or monetization features.
Managing product lifecycle by moving items to Purchased or Abandoned lists, or permanently deleting them from the system.	Real-time inventory or stock availability tracking.

5. Target Audience:

This application is designed for individuals who frequently shop online across multiple platforms and want a centralized way to track products they plan to purchase. It is especially useful for users who wait for price drops, compare prices over time, or plan their purchases based on budget and priority. The target audience also includes students, young professionals, and budget-conscious shoppers who want to avoid losing track of desired products and make more informed purchasing decisions.

6. Key Features:

- **Product Wishlist Management**
  Users can add products to a wishlist by providing a product link, edit product details, and remove products when no longer needed.

- **Category Management**
  Users can organize products using predefined categories (e.g., clothing, cosmetics, home) or create custom categories for better organization.
- **Price Tracking (Manual & Automated)**
  The system tracks product prices either by manually entered values or by automatically retrieving prices through web scraping when available.
- **Price Change Notifications**
  Users receive notifications when a product's price increases or decreases, with the ability to enable or disable notifications for each product individually.
- **Product Priority & Purchase Status**
  Users can assign priority levels to products and update their status as *Purchased*, *Abandoned*, or *Removed* to manage buying decisions.
- **Price History Visualization**
  The application displays price changes over time using visual graphs to help users understand trends.

7. Deliverables:

- **Functional Web Application**
  A fully working wishlist and price-tracking web application implementing all core features, including product management, category organization, price tracking, notifications, and price history visualization.
- **Source Code Repository**
  Well-structured and documented source code following clean architecture and design pattern principles.
- **Project Documentation**
  A written report describing the system architecture, key design decisions, implemented features, and project scope.
- **Database Schema & Data Models**
  ER diagram or database schema illustrating how products, categories, users, and price history are stored.
- **Demonstration / Presentation**
  A live demo or recorded presentation showcasing the main functionalities of the application.

8. Project Success Criteria:

- **Core Feature Completion**
  The application successfully implements all planned key features, including product management, category management, price tracking, notifications, and price history visualization.

- **Accurate Price Tracking and Notifications**
  The system correctly detects price changes (manual or scraped) and sends notifications to users when price increases or decreases according to their preferences.
- **Usability and User Experience**
  At least **80% of test users** can add a product, assign a category and priority, and understand price changes without external guidance.
- **System Reliability**
  The application maintains stable performance during regular use, with scheduled price checks running without critical failures.

Task Matrix:

Tasks	Akif Emre Reis	Alaaddin Gürsoy	Elif Serra Öncü	Gizem Elif Bayar
Project Name & Project Summary Section				✓
Objectives & Scope Section		✓		
Target Audience & Key Features Section	✓			
Deliverables & Project Success Criteria Section			✓	

Tasks	Akif Emre Reis	Alaaddin Gürsoy	Elif Serra Öncü	Gizem Elif Bayar
End-to-end document review and conflict resolution	✓	✓	✓	✓