

JANGS

Project Plan
Version 1.0

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Revision History

Date	Version	Description	Author
October 5, 2023	1.0	Quick Overview of plan	Ali,Janani,Gao,Sajjad, Nippon.

Project Name	Technical Documentation	Version 1.0	2 / 12
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1 Project Overview.....	3
1.1 Product Vision Statement.....	3
1.2 Project Deliverables.....	3
1.3 Budget and Resources.....	4
2 Project Organization.....	5
3 Activities and Milestones.....	5
3.1 Activities.....	5
3.1.1 Technical Feasibility Analysis.....	5
3.1.2 Requirement Analysis.....	6
3.1.3 Design.....	6
3.1.4 Implementation.....	7
3.1.5 Quality Assurance (Including Testing).....	7
3.2 Tasks, Milestones and Schedule.....	7
4 Risks.....	8
5 Tracking.....	8
5.1 Project Team Meetings.....	8
5.2 Time Tracking.....	8

1 Project Overview

1.1 *Product Vision Statement*

In this digital age, online transactions seem to have become an irreversible trend. However, it turns out that the purchase of specific types of goods and consumers' pursuit of shopping experience make physical shopping still enduring, especially when it comes to purchasing relatively high-priced clothing.

The main reason consumers prefer to do clothes shopping in physical stores is to see, to experience, and try on in person before buying. Compared with consumers who choose online shopping, those preferring physical shopping could encounter some problems in terms of collecting information, such as brands, price in general, address of stores where they sell clothes they want. It would be exhausting to compare various products by visiting many shops which are in different places one by one.

Jangs is a platform designed to share information about clothes shopping in Turku. The system will serve as a preliminary, online guide for customers wanting to do physical shopping for their clothes. With just a few clicks, users can find information, including price range, brands, clothing style, location(address) of the stores selling the clothes.

Jangs would be quite beneficial to consumers, especially to those who do not have brand preference and desire to shorten the decision-making process before purchasing. Jangs would also benefit clothes brands and shopping malls, because useful information which could have taken much time to be found and gathered would be integrated and presented at users' fingertips, thus simplifying physical shopping experience and encouraging more traffic to their physical stores.

1.2 Project Deliverables

Table 1 Project Deliverable

Deliverables	Presentation	Requested by	Delivered by
Project plan		the course	06.10.2023
Kick-off presentation slides	Kick-off presentation	the course	
Technical documentation V1		the course	13.10.2023
Updated project plan (if appl.)		the course	
Project status report 1	Project status report 1	the course	
Feedback presentation slides	Feedback presentation	the course	27.10.2023
Technical documentation V2		the course	10.11.2023
Project status report 2	Project status report 2	the course	
Prototype		the course	9.12.2023
Business pitch	Business pitch	the course	
Technical documentation V3		the course	02.02.2023
Project status report 3	Project status report 3	the course	
User documentation final		the course	15.03.2013
Technical documentation final		the course	
Business plan		the course	
Final product	Final presentation	the course	
Meeting minutes		internal	on going

1.3 *Budget and Resources*

The project uses the computer resources available at Åbo Akademi. We will also be using other open resources which can be accessed for free to develop the project. Below lists some of them:

Table 2 Project Resources

Tools	Budget	Usage
Google Doc	0.00	Group meeting minutes
Clockify	0.00	Time tracking
Visual Studio Code	0.00	IDE
MongoDb compass	0.00	Development database
Amazon Web Service	0.00	Deployment on remote server
Google Maps Api	0.00	For mapping, location data, and geographic information

2 Project Organization

The project is under the leadership of Ali, our project manager, who holds responsibility for project planning and organization, serves as the primary liaison between our mentor and the customer, delegates tasks to team members, and provides comprehensive progress reports to the mentor.

Janani fulfills the role of Product Owner and UI/UX Designer. She leads the process of negotiating customer requirements, shaping the product vision, and ensuring the validation of these requirements. Her responsibilities also encompass the design of user interface elements, with a strong focus on incorporating user-centric design principles.

Sajjad, our Quality Assurance Manager and Front-End Developer, plays a critical role in the project's success. He actively contributes to the development and implementation of user interfaces, with a keen eye on maintaining the quality of features in alignment with customer requirements.

Arshid, our Back-End Developer, assumes the vital role of overseeing the project's technical infrastructure. His responsibilities include ensuring the robustness, scalability, and functionality of the project's backend systems, which are foundational to the project's performance and reliability.

Lastly, Gao, our Business Analyst, brings valuable analytical skills and a deep understanding of business operations to the team. Gao's primary role is to bridge the gap between technical development and business objectives by analyzing market trends, customer needs.

The team:

- Project Manager: Ali Hassan
- UI/UX Designer and Product Owner: Janani Natarajan
- QA and Front-End Developer: Sajjad Majundar
- Back-End Developer: Arshid Nippon
- Business Analyst: Yan Gao

3 Activities and Milestones

Section 3.1 explains the activities related to requirement gathering and the behavior of the final product. Section 3.2 depicts tasks, milestones and schedules in the form of a Gantt chart.

3.1 Activities

A number of activities need to be carried out for the purpose of completing the project and achieving the project objectives. Technical feasibility analysis gives a brief description how a fully functional system will be implemented with bootstrap data. Requirement analysis explains the functional and non functional specification that need to be done to achieve project objectives. Design, Implementation and quality Assurance sections define how the end-product will look like , in which environment it will be executed, and how the system quality will be ensured.

3.1.1 Technical Feasibility Analysis

The main goal of our system is to eliminate the need for time-consuming store-hopping, and provides real-time information on clothing item availability in a physical store. System will consider users' search parameters to show the available products and nearest physical shops. We will use bootstrap data to build the system. The system will be able to consider any api from the shop's online store to show real time availability of the products.

Google Maps Api will be implemented to show the route to the user for a quick arrival to the physical store. Google Maps API is a set of application programming interfaces (APIs) provided by Google that allows developers to integrate various mapping and location-based services into their applications or websites. These APIs provide access to a wide range of functionalities related to mapping, location data, and geographic information. Google Maps Api we need to develop our system are:

Google Maps Geocoding API: It will convert addresses into geographic coordinates (latitude and longitude) and vice versa.

Google Maps Directions API: This API will provide directions and estimated travel times between multiple shops, whether by car, public transit, walking, or bicycling

Google Maps Distance Matrix API: It will calculate travel distances and times between multiple origins and destinations.

Google Maps Static Maps API: This API will allow us to generate static map images based on specific locations, markers, and other parameters. These images will be used in our system.

Google Maps Elevation API: It provides elevation data for geographic locations, which can be useful for applications involving terrain analysis.

Google Maps Roads API: This API will identify roads and their geometry based on user data or a set of latitude and longitude coordinates. We will use it for route optimization and tracking.

3.1.2 Requirement Analysis

The web-based system should be able to perform the following tasks:

- A. Show the available products based on user search parameters.
- B. Show the physical shop details.
- C. Provide google maps apis functionality.
- D. Show the search result based on the shop provided apis.

3.1.3 Design

This phase can be explained further when the requirement elicitation is done. Our project mostly relies on the bootstrap data and google apis.

3.1.4 Implementation

This system will be implemented using react.js, mongodb, node.js, express.js , google maps api. Our system is a web based application.

Table 3 Development tools and framework

Name	Purpose
React.js	Front End Framework
Node.js	Back-end runtime environment and api development.
Express.js	For the backend https server.
Mongodb compass	Development Database.
Visual studio Code	IDE

3.1.5 Quality Assurance (Including Testing)

The quality assurance will be performed inside the team. The specifications are reviewed by the customer, the design is reviewed in internal meetings.

The quality manager is responsible for generating a Test Plan as well as guidelines related to white-box analysis during the project. The quality manager is also responsible for the Quality assurance phase of the project.

3.2 Tasks, Milestones and Schedule



Figure: JANGS Gantt Chart

4 Risks

In the project the following risks are identified:

- a. Technical Challenges: Developing a seamless and efficient web app that integrates with various local store systems may encounter technical complexities like compatibility issues.
- b. Store Participation: Convincing local stores to participate and share their inventory data can be a challenge. Some stores may be hesitant to adopt new technology or share sensitive information.
- c. Dependency on Store Systems: The app's functionality relies on the accuracy and availability of data from local stores. Any downtime or technical issues with these store systems could impact the user experience.
- d. Changing Consumer Behavior: Changing consumer behavior from traditional online shopping to this hybrid model may take time and effort.

5 Tracking

5.1 *Project Team Meetings*

The project team will hold regular progress meetings, including weekly status updates and monthly comprehensive reviews. These meetings will serve to address challenges, ensure alignment with project goals, and adjust strategies as needed.

5.2 *Time Tracking*

For accurate project management of our web app development, we will utilize the Clockify platform for time tracking. Each team member will record their work hours in real-time, categorizing tasks and activities. This allows us to closely monitor progress, optimize resource allocation, and ensure adherence to project timelines. Weekly time logs will be reviewed by project managers. Clockify's reporting features will provide valuable insights for productivity analysis and future project planning, making it an essential tool for efficient project execution.