

# Assignment 1 - Project Plan and Requirements

Team 17 - brj46, hfd2, jjo1, ros30

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## 1 Project Vision

### 1.1 Vision Statement

The vision of this project is to deliver a simple, fast, and reliable Android application that allows customers to browse restaurant menus, place orders, and track order status directly from their mobile device. The app focuses on reducing friction in the ordering process and providing a smooth end-to-end experience from menu discovery to pickup.

### 1.2 Product Scope

This Android application represents the customer-facing client of the OOPS (Online Order Printing Software) system. The app integrates with an existing backend and focuses exclusively on customer functionality, including browsing menus, managing a basket, placing orders, paying by card, and viewing order status. Administrative and staff features are intentionally excluded.

### 1.3 Value for Users

**Customers** benefit from a modern mobile ordering experience with clear pricing, real-time availability, secure card payments, and transparent order status updates. The app eliminates the need for phone calls and reduces uncertainty around pickup times.

## 2 Product Backlog

We use a **grouped priority system** where a lower number means higher priority (P1 < P2 < P3). Estimates are given in **person hours**.

- **US1 [P1]:** As a customer, I want to view the restaurant menu with prices and availability so that I can decide what to order.
- **US2 [P1]:** As a customer, I want to view the status of my order so that I know whether it is pending, preparing, or ready for pickup.
- **US3 [P1]:** As a customer, I want to place an order so that the restaurant receives my request.
- **US4 [P1]:** As a customer, I want to confirm my order before final submission so that I can verify items, prices, and pickup details.
- **US5 [P1]:** As a customer, I want to add items to a basket and view its contents so that I can manage my order before checkout.
- **US6 [P2]:** As a customer, I want to log in using my phone number so that my orders can be associated with me.
- **US7 [P3]:** As a customer, I want to filter the menu to show only vegetarian items so that I can easily find suitable options.
- **US8 [P1]:** As a customer, I want to see the estimated wait time before ordering so that I can decide whether to place an order.

### 3 User Story Estimates

Estimates are calculated using the **PERT formula** and measured in **person hours**.

User Story	Best Case	Most Likely	Worst Case	PERT Estimate
US1 (View menu)	4	6	8	$\frac{4+4(6)+8}{6} = 6$
US2 (View order status)	4	6	9	$\frac{4+4(6)+9}{6} = 6.2$
US3 (Place order)	6	9	13	$\frac{6+4(9)+13}{6} = 9.2$
US4 (Confirm order)	3	5	7	$\frac{3+4(5)+7}{6} = 5$
US5 (Basket management)	5	7	10	$\frac{5+4(7)+10}{6} = 7.2$
US6 (Login with phone number)	3	5	7	$\frac{3+4(5)+7}{6} = 5$
US7 (Vegetarian filter)	2	4	6	$\frac{2+4(4)+6}{6} = 4$
US8 (Estimated wait time)	3	5	8	$\frac{3+4(5)+8}{6} = 5.2$

### 4 Project Schedule

The project runs for **10 weeks** and follows the course structure with **five project presentations (A1–A5)**. Development is iterative, with each delivery building on the previous one.

Week	User Stories / Activities	Expected Hours	P.O.	Sprint	Consultation / Delivery
1	Project planning, requirements analysis	6	N/A	1	No consultation
2	Vision document, use cases, Android skeleton	10	N/A	1	<b>A1 Presentation</b>
3	US1 (View menu), US8 (Estimated wait time)	18	JJO	2	Model drafts
4	US5 (Basket management), US7 (Vegetarian filter)	20	JJO	2	<b>A2 Presentation</b>
5	US3 (Place order), US4 (Confirm order)	22	HFD	3	Development support
6	US6 (Login with phone number)	14	HFD	3	<b>A3 Presentation</b>
7	US2 (View order status), backend integration	16	BRJ	4	Development support
8	Persistence, networking, error handling	14	BRJ	4	<b>A4 Presentation</b>
9	Testing, bug fixes, UI polish	18	ROS	5	Development support
10	Final integration, documentation, delivery	15	ROS	5	<b>A5 Final Presentation</b>