

Lazy Pizza Milestone #1 Requirements

This document describes the requirements for the first development milestone (Milestone #1) of the Lazy Pizza app.

The goal of this milestone is to create the main menu screen and the product details screen (for pizza) with support for dynamically adding toppings.

The mockups define the app's appearance and behavior. Feel free to decide how you implement specific things (e.g., how you display a specific loading progress or how you specify error messages).

You can find the Lazy Pizza **mockups here**:

<https://www.figma.com/design/7Egltcq6KfY1Ct9H6uOitQ/Lazy-Pizza?node-id=4-18822>

Milestone #1 Goal

- Build the main product catalog screen.
- Build the pizza details screen with extra toppings selection.
- Ensure proper search functionality and adaptive layouts for mobile and wide screens.

Remote Data & Images

All product data and images must be stored remotely. This architecture decision will make your app scalable and easier to maintain.

Images

- **All product images** (pizzas, drinks, sauces, ice cream, toppings) must be hosted remotely and loaded via URL.
- Do not bundle images in your app's assets or drawable folders.

 We recommend using **Firestore** for hosting images; however, you may use any reliable hosting solution, but please keep in mind the time constraints for this challenge.

Product Data

- You may load a **sample dataset** locally to have a working prototype.

💡 **Important:** Starting in **Milestone #2**, order data and full product catalogs will be required to be stored remotely.

Begin thinking about your data schema now in preparation for Milestone #2's remote database requirements.

Comparison of Approaches: Firebase vs Custom Backend

In modern mobile app development, there are two common approaches to organizing the backend: using ready-made solutions such as **Firebase** or building a **custom backend**. Both options have their pros and cons, which should be considered when choosing an architecture.

Firestore

- ✓ Great to quickly get started and prototype
- ✓ Easy to scale
- ! Can become incredibly expensive when scaled (you pay for users, regardless of how profitable your app is - and small bugs causing plenty of requests can create cost spikes)
- ! Limited control and querying potential

Custom Backend

- ✓ Full control over everything from DB to storage to programming language
- ✓ Can be maintained for relatively little money in comparison to cloud providers (however, it's typical to stick to a hybrid model by having both a custom backend and some cloud providers, e.g. for image storage to get the best of both worlds)
- ! Steeper learning curve
- ! Scalability depends on how you structure it

Recommended Solution: Firestore

- We strongly recommend using **Firestore** for this project:
 - [Firestore Storage](#) for images
 - [Firestore Firestore](#) or [Realtime Database](#) for product data (to be implemented in Milestone #2)
- Firestore provides excellent Android integration, real-time capabilities, and is free for development purposes.

Icons

You may use Material Design icons where appropriate. If a suitable Material icon is not available, use the custom icons provided in the Figma mockups.

In Figma, any icon or image can be **exported** by selecting the element and clicking "Export" in the **right-hand panel**. In this panel, you can also choose the desired format (PNG, SVG, etc.).

Adaptive Layouts

The app must support two breakpoints:

- **Up to 840 dp** → mobile layout.
- **From 840 dp and above** → wide-screen layout.

Both versions must be implemented as shown in the mockups.

Technical Requirements

Splash Screen

- Background: solid bright orange color with no gradients or images.
- A pizza slice logo is centered on the screen.
- The background should fill the entire screen (edge to edge).

Top Bar

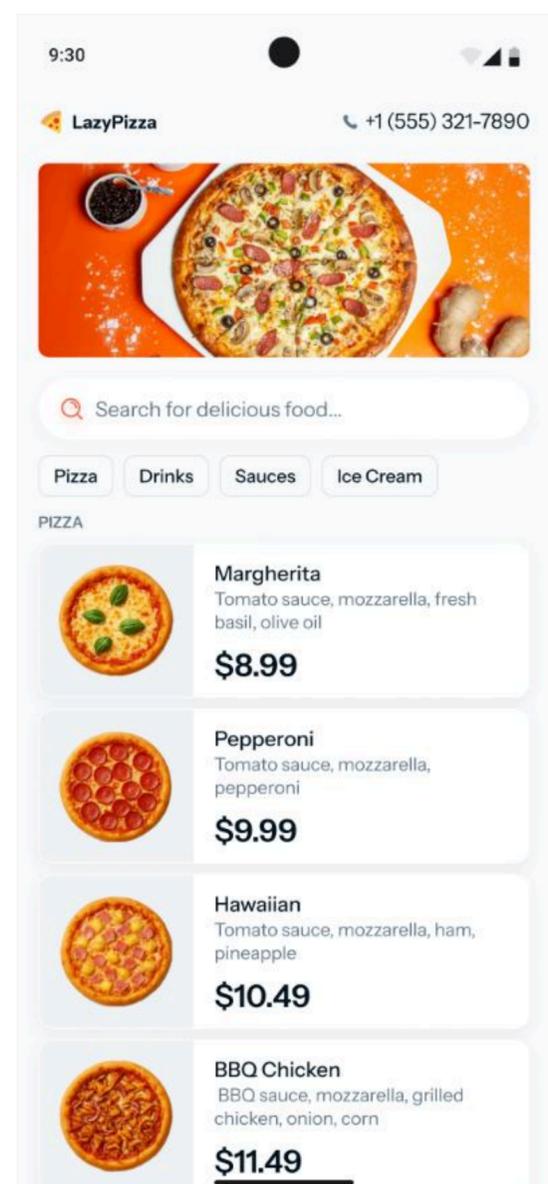
- Contains the logo and the application name: **Lazy Pizza**.
- Store phone number: **+1 (555) 321-7890** (no functionality by default; if you want to practice, you may implement it so that tapping opens the system dialer with the number prefilled).
- Displayed **only on the main screen**.

Search Bar

- Placeholder: "Search for delicious food...".
- Search icon on the left.
- Search is performed by product name.
- While typing, the list shows only products that match the query.
- If no products are found, display a message instead of the list: "No results found for your query".

Horizontal Category List

- Located below the search bar.
- Categories: Pizza, Drinks, Sauces, Ice Cream.
- Tapping a category scrolls to the corresponding section in the product list.



Product List

Pizza Card

- Large pizza image (should be loaded from a URL and cached; Coil is recommended as the library).
- Pizza name.
- Short composition description (main ingredients).
- Price.
- Tapping the card opens the Product Details screen.
- Returning from Product Details restores the previous scroll position in the main list.



Other Product Cards (Drinks, Sauces, Ice Cream)

- Product name.
- Price.
- Initial state:
 - On the right side, an **Add to Cart** button is displayed.
- After pressing **Add to Cart**:
 - The button disappears and is replaced with a quantity selector (- 1 +).
 - To the right of the selector, the **total sum** is displayed (price × quantity).
 - Below the total sum, a small label shows the multiplication format: **N × \$X.XX** (e.g., **2 × \$1.89**).
 - A **delete (trash)** icon appears in the top-right corner of the card.
- Logic:
 - Changing the quantity dynamically updates both the total sum and the multiplication label.
 - If the **delete icon** is pressed → the card **resets to its initial state** (price on the left, Add to Cart button on the right).
 - If the current **quantity = 1** and the user presses **minus (-)** → the card also resets to its initial state.
- **Note:** actual cart functionality is **not implemented** in this milestone, since the cart screen will be introduced in future milestones.



🍕 Product Details Screen (Pizza Only)

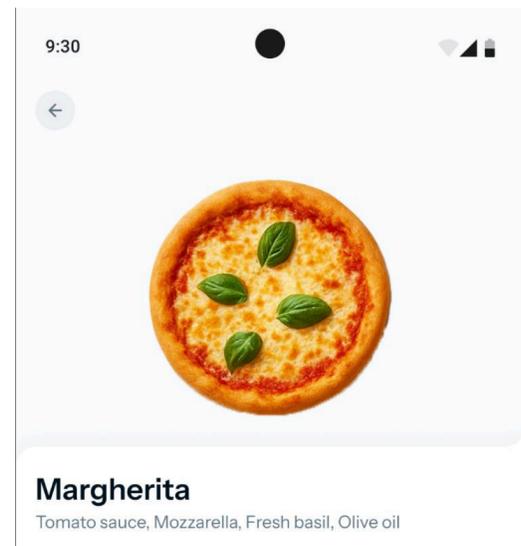
This is a **separate screen**, opened when tapping a pizza card.

Top Section

- Large pizza image (full width).
- Pizza name.
- Full ingredient list.

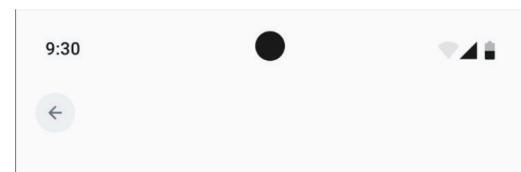
Product Details Surface

- The surface that containing the product name, description, and other details has asymmetrical rounded corners:
 - On the left side — the corner is rounded downwards.
 - On the right side — the corner is rounded upwards.
 - A soft shadow is applied beneath the Surface to visually separate it from the image.



Back Button

- Back arrow in the top-left corner.
- Returns the user to the main screen.
- The Product Details screen is **removed from the back stack**.

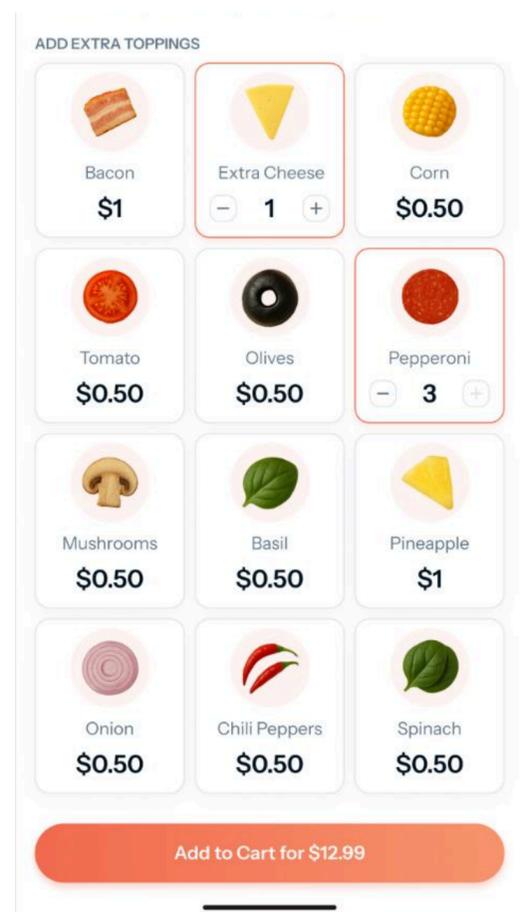


🧩 Add Extra Toppings

- Section title: "**Add Extra Toppings**".
- 3x4 grid with 12 toppings:
- Bacon, Extra Cheese, Corn, Tomato, Olives, Pepperoni, Mushrooms, Basil, Pineapple, Onion, Chili Peppers, Spinach.
- If the toppings do not fit entirely on the screen, the list must be **scrollable**.

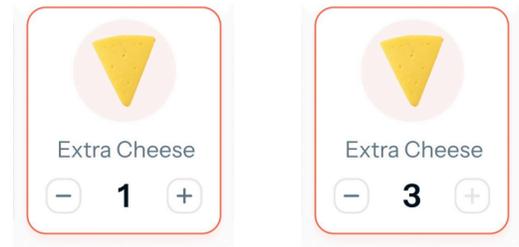
Topping Mini-Card

- Image.
- Name.
- Price (\$1).



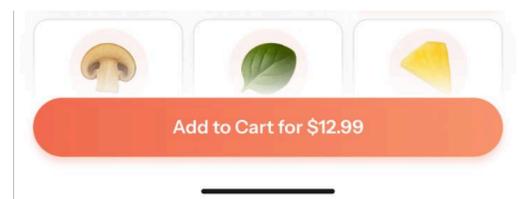
Interaction Logic

- Default state: shows **price**.
- On tap:
 - The card gets a **border highlight**.
 - Price is replaced with a quantity control (- 1 +).
- Quantity range: **1-3 units**.
- If quantity = 1 and user presses "-":
 - Quantity control disappears.
 - Price is shown again.
 - Border highlight is removed.
- If quantity = 3:
 - The "+" button becomes gray (disabled).



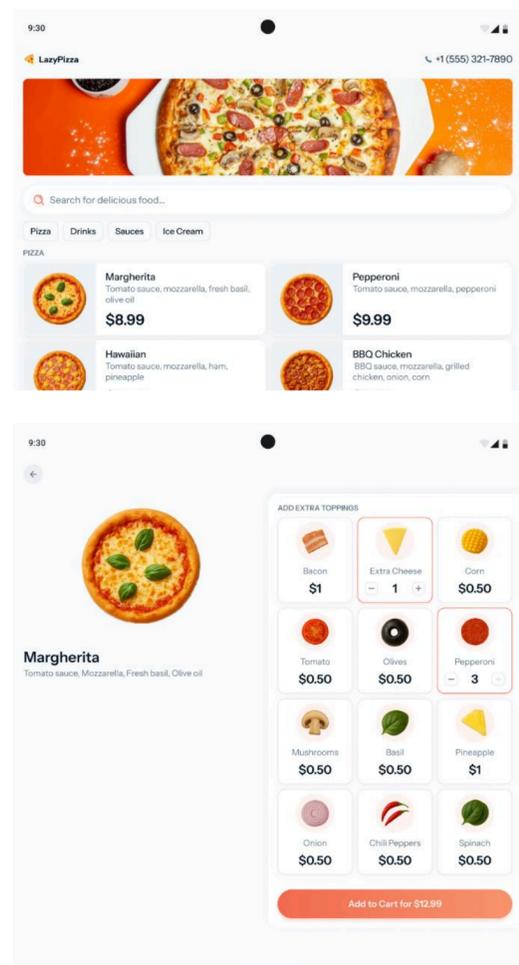
Bottom Bar (Sticky)

- Always visible at the bottom of the screen.
- Button text: "**Add to Cart for \$XX.XX**".
- Initially shows the base pizza price.
- Price updates dynamically as toppings are added.
- Price format: **dollar sign + two decimals** (e.g., \$12.99).
- A semi-transparent overlay (gradient) is displayed above the button, visually separating it from the content above (toppings list).



Screen Adaptation

- **Up to 840 dp:**
 - Main screen → products in **one column**.
 - Product Details → vertical layout (pizza image, description, toppings grid, button).
- **From 840 dp and above:**
 - **Main screen** → products in two columns.
 - **Product Details** → two-column layout:
 - Left: pizza image and description.
 - Right: toppings grid and button.
 - If toppings overflow → toppings are scrollable, while the button always stays sticky at the bottom of the right column.



Useful Links for This Challenge

- [Add Firebase to your Android project](#)
- [Connect your App to Firebase](#)
- [Create a Splash Screen](#)
- [UX With Material3](#)
- [Full Guide to Material3 Theming](#)
- [The Full Jetpack Compose Responsive UI Crash Course](#)
- [How to Create a Lazy Column With Categories](#)
- [How to Save & Restore the Scroll Position of a LazyColumn Persistently](#)
- [Stateful vs. Stateless Composables](#)
- [State Hoisting in Compose](#)
- [Managing State in Jetpack Compose \(Codelab\)](#)
- [Add shadows in Compose](#)

Application Items List

Pizza Menu

- **Margherita** — \$8.99
Ingredients: Tomato sauce, mozzarella, fresh basil, olive oil
- **Pepperoni** — \$9.99
Ingredients: Tomato sauce, mozzarella, pepperoni
- **Hawaiian** — \$10.49
Ingredients: Tomato sauce, mozzarella, ham, pineapple
- **BBQ Chicken** — \$11.49
Ingredients: BBQ sauce, mozzarella, grilled chicken, onion, corn
- **Four Cheese** — \$11.99
Ingredients: Mozzarella, gorgonzola, parmesan, ricotta
- **Veggie Delight** — \$9.79
Ingredients: Tomato sauce, mozzarella, mushrooms, olives, bell pepper, onion, corn
- **Meat Lovers** — \$12.49
Ingredients: Tomato sauce, mozzarella, pepperoni, ham, bacon, sausage
- **Spicy Inferno** — \$11.29
Ingredients: Tomato sauce, mozzarella, spicy salami, jalapeños, red chili pepper, garlic
- **Seafood Special** — \$13.99
Ingredients: Tomato sauce, mozzarella, shrimp, mussels, squid, parsley
- **Truffle Mushroom** — \$12.99
Ingredients: Cream sauce, mozzarella, mushrooms, truffle oil, parmesan

Drinks

1. Mineral Water — \$1.49
2. 7-Up — \$1.89
3. Pepsi— \$1.99
4. Orange Juice — \$2.49
5. Apple Juice — \$2.29
6. Iced Tea (Lemon) — \$2.19

Ice Cream

1. Vanilla Ice Cream — \$2.49
2. Chocolate Ice Cream — \$2.49
3. Strawberry Ice Cream — \$2.49
4. Cookies Ice Cream — \$2.79
5. Pistachio Ice Cream — \$2.99
6. Mango Sorbet — \$2.69

Sauces

1. Garlic Sauce — \$0.59
2. BBQ Sauce — \$0.59
3. Cheese Sauce — \$0.89
4. Spicy Chili Sauce — \$0.59

Extra Toppings

- Bacon — \$1.00
- Extra Cheese — \$1.00
- Corn — \$0.50
- Tomato — \$0.50
- Olives — \$0.50
- Pepperoni — \$1.00
- Mushrooms — \$0.50
- Basil — \$0.50
- Pineapple — \$1.00
- Onion — \$0.50
- Chili Peppers — \$0.50
- Spinach — \$0.50