



Phantom Unit

ET-Pizzeria

Request for Proposal
Version 1.0

Document History

Version	Date	Authors	Change History
1.0	02/14/2026	Zuzanna Whitman, Emily Thomas, Samuel Wood, Leo Nelson, Noah Turner, Garret Brown	Initial Drafting

Table of Contents

- 1.0 Problem description
- 2.0 Project Objectives
- 3.0 Current System(s) – if any or similar systems
- 4.0 Intended users and their interaction with the system
- 5.0 Known interactions with other systems inside/outside the client organization
- 6.0 Known constraints to development
- 7.0 Project Schedule
- 8.0 How to Submit Proposals
- 9.0 Dates
- 10.0 Glossary of terms

1.0 Problem description / opportunity / expression of need

Mobile games are one of the most accessible and widely played forms of entertainment for student-age audiences, but many small classroom projects fail to reach a “finished” and enjoyable state due to limited time, limited experience with professional tools, and unclear scope.

Our team is developing ET-Pizzeria, a 2D, mobile-friendly, alien/space-themed restaurant game inspired by Papa's Pizzeria. The opportunity is to create a complete, playable experience—one that demonstrates the full lifecycle of development (planning, implementation, testing, and delivery) and supports course outcomes aligned with ABET expectations.

However, the primary challenge is that the team has limited prior experience using Unity Technologies tools and workflows, which increases the risk of missed deadlines, unfinished systems, and late-stage integration issues—especially when targeting mobile deployment and touch-based UI.

Therefore, there is a clear need for a structured approach and milestone-driven plan that prioritizes early prototypes, frequent builds, and incremental implementation of core gameplay. Success will be defined by delivering a functional and fun 2D mobile game within the semester timeframe, with a complete gameplay loop (order → preparation → delivery → scoring/feedback), stable performance, and a user experience that is understandable and enjoyable for new players.

2.0 Project Objectives

The primary objective of the project is to design and implement a complete and playable 2D restaurant simulation game. This project is heavily inspired by Papa's Pizzeria and will be optimized for pc and mobile. Our project will emphasize the technical functionality of the game but also focus on creating a good user experience. The final product will demonstrate a complete gameplay loop, starting from order creation to level completion. There are a wide variety of objectives to be completed on the way to our finished product.

1. We will deliver a fully functional end-to-end gameplay loop. This objective is important because it will ensure that the game is playable at the end instead of being a partial prototype.

2. We will develop the game using Unity and implement mobile friendly controls. This is important as it will broaden our player base and bring a more player friendly user experience.
3. We will prioritize clarity and usability in our game. It will provide clear visual clues and feedback to help players understand their performance and offer clues as to how they can improve. This will also help new players get into the game more smoothly.
4. Importantly, we will meet all project deadlines and deliverables. We will strive to follow these milestones with frequent testing and builds to ensure a stable and functional final submission.

3.0 Similar Systems

Papa's Pizzeria

Papa's Pizzeria is a popular Flash-based time-management game developed by Flipline Studios. The player takes customer orders, prepares pizzas with the correct toppings, cooks them to the appropriate doneness, and slices them according to the customer's request. The gameplay emphasizes multitasking, accuracy, and speed, as customer satisfaction decreases if orders take too long or are prepared incorrectly. This system is relevant because our proposed game uses a similar order-taking and food-assembly workflow, adapted to an alien-themed setting.

Papa's Freezeria

Papa's Freezeria is another entry in the Papa Louie series, also developed by Flipline Studios. Players manage a dessert shop by taking orders, building sundaes with specific ingredients, blending them to the correct consistency, and adding toppings in the correct sequence. Like Papa's Pizzeria, the game focuses on balancing multiple tasks under time pressure while maintaining precision. This system is similar to our intended mechanics, particularly the step-by-step assembly process and the increasing difficulty as more customers arrive.

4.0 Intended users and their basic interaction with the system

The primary audience for the pizzeria game are casual players, particularly younger audiences like students. These players should be familiar with mobile and browser-based games; however the game will not require quick reflexes and complex game controls.

Players will interact with the system using the mouse or touch gestures to drag and drop toppings onto the pizza. They will also be able to click or tap on menu options, observe cooking timers, slice the pizza, and serve the customers their finished order. These

elements like cooking timers give clear player feedback about what is happening in the game. The simple controls will help to minimize the time it takes to learn the game.

The system will primarily be designed for casual players while also offering an increasing amount of difficulty by adding more ingredients to orders more often and reducing customer satisfaction the longer they wait for the order.

5.0 Known interactions with other systems within or outside of the client organization.

The proposed pizza restaurant simulation game will be developed using the Unity game engine and will operate as a standalone desktop application.

The system will interact with the following components:

1. Unity Runtime Environment

The application will depend on the Unity engine and associated runtime libraries for rendering graphics, handling physics, managing scenes, and processing user input.

2. Client Operating System

The application will run locally on a user's desktop operating system (e.g., Windows or macOS). It will rely on the operating system for memory management, file access, and hardware communication.

3. Local File System

If persistent game data (such as saved progress or settings) is stored, it will be written to and read from the local file system. No external database systems will be used.

The system will not integrate with external enterprise systems, third-party APIs, cloud services, authentication providers, or payment processing platforms. All processing and data storage will occur locally on the client machine.

6.0 Known constraints to development

1. The duration required to work on project to completion.
2. The project is hindered by the lack of funding.

7.0 Project Schedule

Project start: Sat Feb 21, 2026

Target “functional game” deadline: Oral Exam Week (Mon Apr 20, 2026)
Major class deliverables reflected below: storyboard, sequence diagram, test plan, weekly status reports, oral exam drop box.

7.1 Meeting cadence (broad overview)

- Weekly team meeting (45–60 min): plan tasks, integrate builds, assign next week deliverables
- Mid-week check (10–15 min async or quick call): blockers + confirm latest build runs
- Milestone playtest: quick playtest at each “build-ready” date (especially on mobile)

Date (due)	ET-Pizzeria milestone (what we aim to have done by then)
Sat Feb 21	Kickoff + architecture: agree on the 5-module loop (Order/Toppings/Bake/Cut/Finish), decide scene flow, define data passed between scenes (order object, toppings list, bake time, cut type, final score).
Tue Feb 24	Storyboard matches implementation plan: screens & scenes sketched (menu → order → toppings → bake → cut → finish/results). Identify placeholders for graphics so coding can start immediately.
Thu Feb 26	Module owners assigned + repo ready: each member picks one module, creates a basic scene stub, and confirms it runs.
Thu Mar 5	Ordering prototype: random customer + random request generation, display requirements clearly, and create a simple “check” function (pass/fail or percent match).
Thu Mar 12	Integration checkpoint: connect Ordering → Toppings scene transition using shared order data (even with placeholder UI).
Thu Mar 19	Test plan tied to modules: boundary/stress tests for order generation, topping selection validation, timer behavior, cut detection, and scoring accuracy; define how we’ll test on mobile build.
Tue Mar 24	Toppings prototype: place unique toppings (placeholder icons) onto pizza; validate against order requirements at a basic level (full-pizza placement first; half/regions can be later).
Tue Mar 31	Baking prototype: oven scene + timer + “burn” threshold; outputs a bake result used by scoring.
Tue Apr 7	Cutting + Finish prototype: drag tool to slice into pieces (simple detection); boxing/serve step; compute fulfillment score from all steps.
Thu Apr 16	Playable full loop (alpha): complete loop from start → finish with placeholder art; focus on stability, clarity, and no blockers.
Sat Apr 18	Polish pass (beta): usability tweaks, UI clarity, balance basic scoring/timers, bug fixes from playtests.
Sun Apr 19 (4am)	Release candidate build: packaged build + quick “how to play” notes + known issues list.

Mon Apr 20

Functional game demo: stable loop on mobile target; show each module working and integrated.

8.0 How To Submit Proposals

Email the team lead at wiec0814@vandals.uidaho.edu. Include ‘CS3383 PU RFP’ in the subject line.

9.0 Dates

All those who are interested must submit their full response by 12:00 pm February 27th, 2026. Respondents will be notified of the final decision within two business days. Late submissions will not be accepted.

10.0 Glossary of terms

Terms that are meaningful to your client group but might not be understood by someone outside your group.

*Note: Remember that “system” means product, service, and/or system your group would like to see created, built, upgraded, and/or changed. It is a broad term.