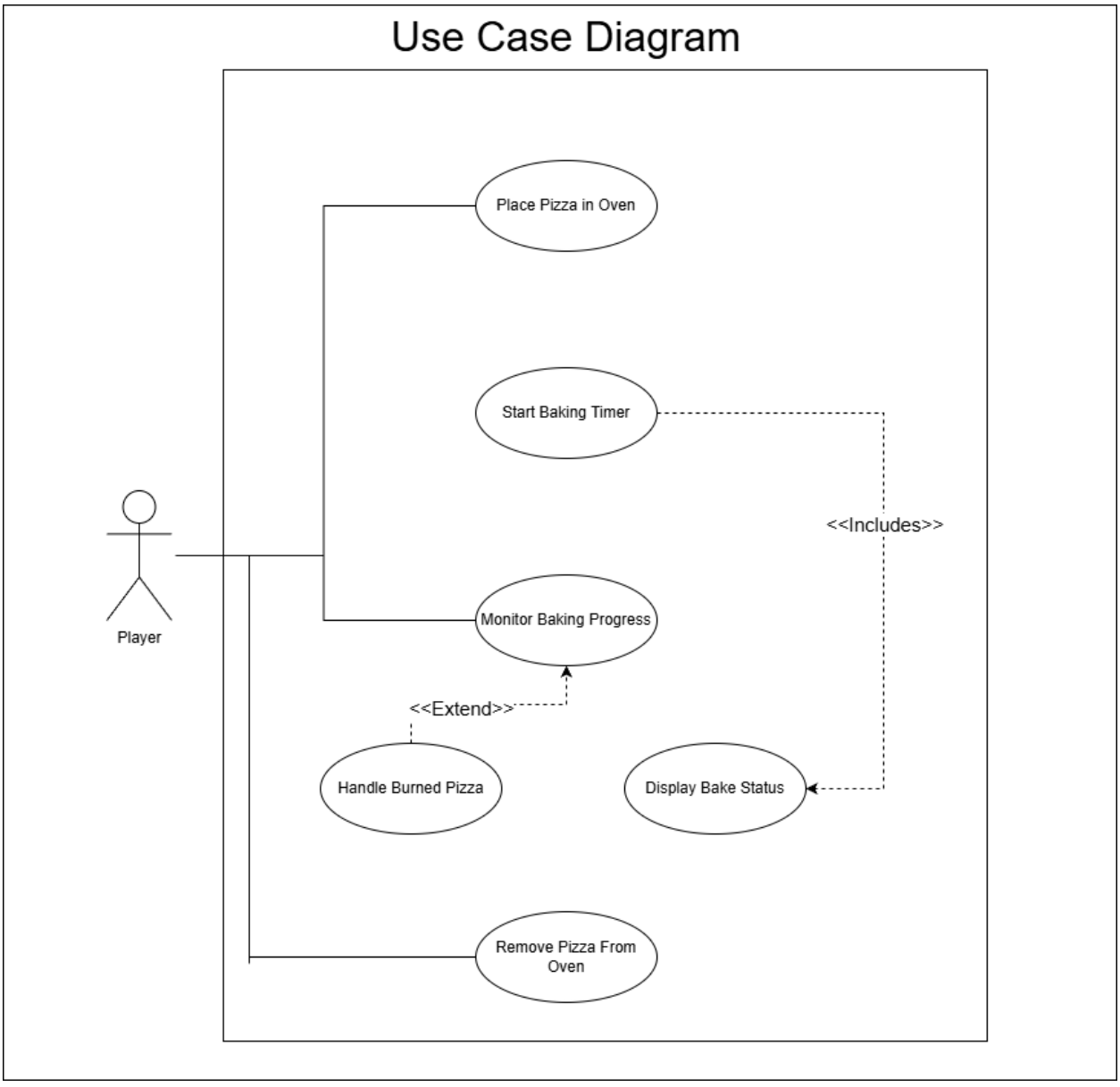
Name: _Leo Nelson_ Mark _____/50

1. Brief introduction __/3

The baking feature of ET's Pizzeria controls what happens after the player places the desired toppings onto the pizza. The player will place the pizza into an oven where a timer then tracks the baking progress. There will be visual cues throughout the process, and an audio cue when baking is finished. When baking is complete, the player can click or tap the oven to place the pizza onto a plate, readying it for the next stage of the game. This feature will be a core part of the overall gameplay loop.

2. Use case diagram with scenario __14

Use Case Diagrams



Scenarios

Scenario 1: Bake Pizza
Name: Bake Pizza
ID: B01
Priority: 1

Summary:

The player bakes a pizza prepared in an earlier stage by placing it into the oven and removing it when finished.

Actors:
The Player.

Preconditions:

- The pizza has toppings applied to it
- The oven is available for use
- The pizza is not already baked

Basic Sequence:

1. Player will place pizza onto an open oven
2. The system will start the bake timer
3. System displays a visual bake progress bar
4. Player will monitor pizza bake progress
5. Player will remove the pizza before it gets burnt
6. The system will place the pizza onto a plate

Exceptions/Exclusions:

1. Pizza Burned – If the player does not remove the pizza before the burn threshold, system changes pizza state to burned, applies visual effects, and effects score of pizza.

Postconditions:

- Pizza marked as baked
- Pizza advances to plate stage

Scenario 2: Burned Pizza

Name: Burn Pizza

ID: B02

Priority: 2

Exception Trigger:

Player leaves the pizza in the oven for too long after bake timer reaches 100%.

Extended Use Case: Bake Pizza

Extension Point: Monitor Pizza Baking Process

Exception Steps:

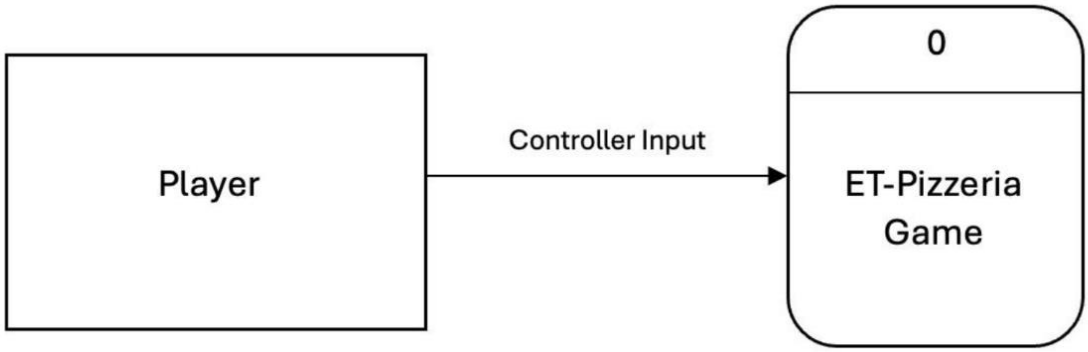
1. Baking timer exceeds acceptable threshold
2. System changes pizza state to burned
3. Visual and audio queue is triggered
4. Pizza score is reduced

Postconditions

- Pizza is burned
- Pizza can still be plated but for less points

3. Data Flow diagram(s) from Level 0 to process description for your feature _____14

Data Flow Diagrams



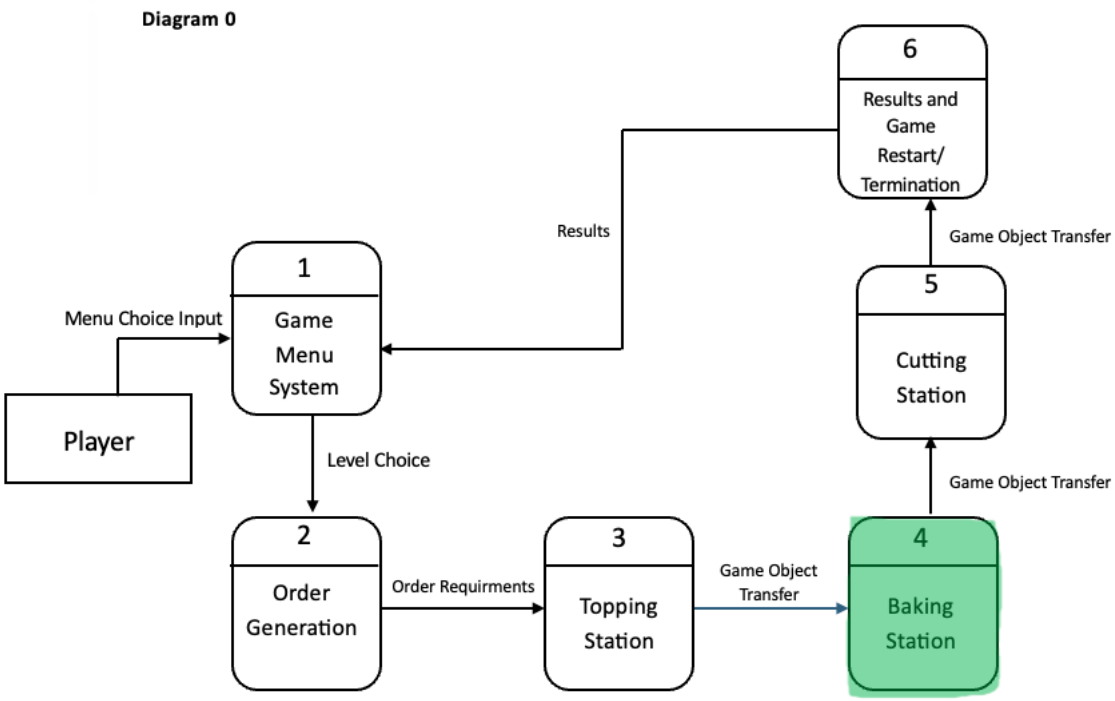


Diagram 0
6
Results and Game Restart/ Termination
Results
Game Object Transfer
1
Game Menu System
Menu Choice Input
5
Cutting Station
Player
Level Choice
Game Object Transfer
2
Order Generation
Order Requirments
3
Topping Station
Game Object Transfer
4
Baking Station

Diagram 1

Highlighted Processes are processes under my control

Process Descriptions

Process: Bake Pizza

Inputs: Pizza, Player Action

Outputs: Updated Pizza State

Description:

The system starts a bake timer when the pizza is placed in the oven.

Bake progress is continuously updated and evaluated. If the burn threshold

is exceeded, the pizza state is set to burned. Otherwise, the pizza is set

to baked and stored for the next stage.

4. Acceptance Tests _____9

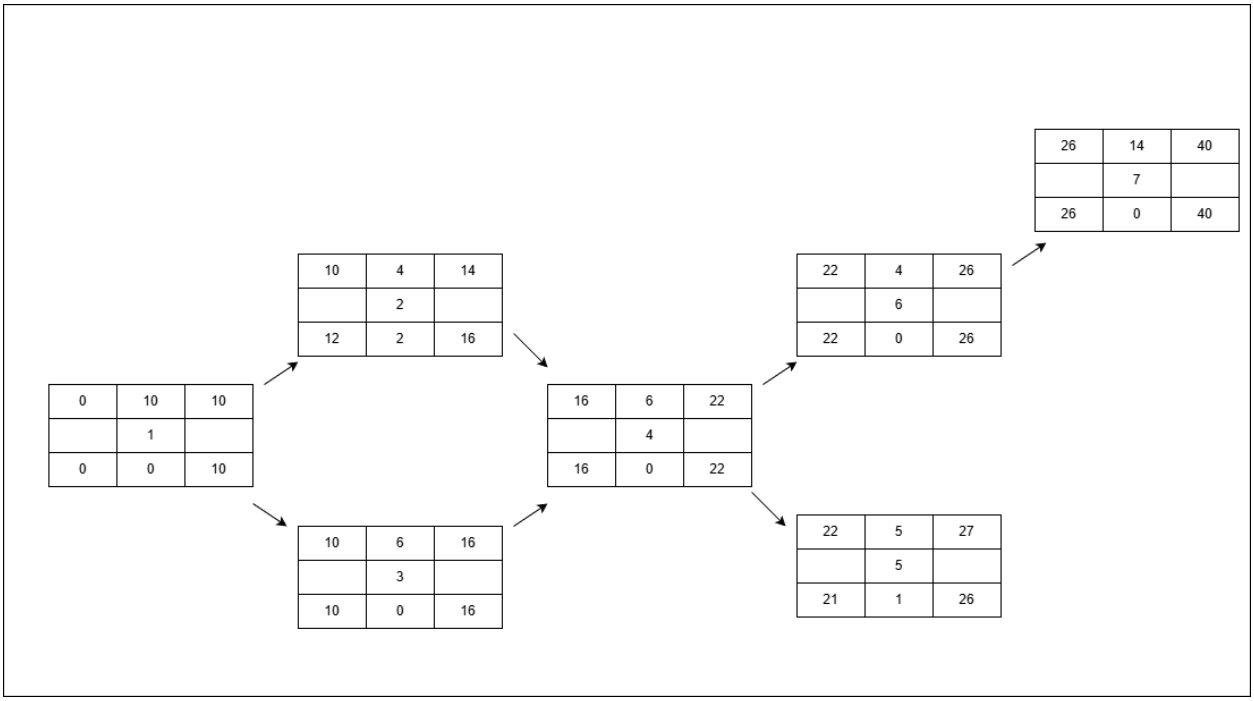
Test-ID	Input	Expected Output	Notes
AT-1	Remove Pizza at optimal time	Perfectly baked pizza	Normal case
AT-2	Remove pizza early	Undercooked pizza	Lower score
AT-3	Remove pizza late	Burned pizza	Burn penalty
AT-4	Do not remove pizza	Auto-burn	Boundary
AT-5	Remove pizza at burn threshold	Acceptable bake	Edge Case

Timeline _____/10

Work items

Task	Description	Duration (PWks)	Predecessor
1	Baking Requirements	10	-
2	Oven UI Design	4	1
3	Timer Logic Design	6	1
4	Baking Implementation	6	2, 3
5	Visual Feedback	5	4
6	Testing & Balancing	4	4
7	Documentation	14	6

Pert diagram



Gantt timeline

Weeks ->	1	2	3	4	5	6	7	8	9	10
T1 Req										
T2 UI										
T3 Logic										
T4 Impl.										
T5 Visual										
T6 Testing										
T7 Docs										

Green = Slack

Red = Scheduled Work