# UML and UI Design Document

## Become Pac-Man

## version: 1

## Group F8

## 1155127434 HO Chun Lung Terrance

Department of Philosophy, The Chinese University of Hong Kong 1155143519 WOO Pok

Department of Physics, The Chinese University of Hong Kong 1155157839 NG Yu Chun Thomas

Department of Computer Science and Engineering, The Chinese University of Hong Kong 1155157719 LEUNG Kit Lun Jay

Department of Computer Science and Engineering, The Chinese University of Hong Kong 1155143569 MOK Owen

Department of Mathematics, The Chinese University of Hong Kong

## March 25, 2023

## **Contents**

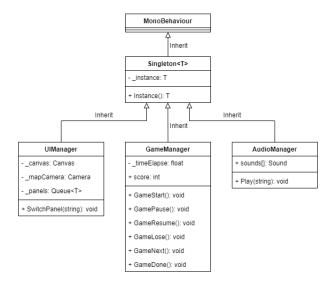
1	UML DESIGN				
	1.1	1.1 Manager Class			
		1.1.1	Structural Diagram	3	
		1.1.2	UMLs	3	
		1.1.3	Component Functionality	3	
		1.1.4	Major Procedure and Functions	3	
	1.2	Props	Class	3	
		1.2.1	Structural Diagram	3	
		1.2.2	UMLs	3	
		1.2.3	Component Functionality	5	
		1.2.4	Major Procedure and Functions	5	
	1.3	Databa	ase	5	

		1.3.1	Structural Diagram	5			
		1.3.2	UMLs	5			
		1.3.3	Component Functionality	5			
		1.3.4	Major Procedure and Functions	5			
	1.4	Ghost	Class	5			
		1.4.1	Structural Diagram	5			
		1.4.2	UMLs	5			
		1.4.3	Component Functionality	7			
		1.4.4	Major Procedure and Functions	7			
2	UI DESIGN						
	2.1	Login/	Sign-up page	7			
	2.3 Shop UI		creen	7			
			Л	7			
			g UI	7			
	2.5	Main (	Game	7			
	2.6	Record	I page	7			

## 1 UML DESIGN

- 1.1 Manager Class
- 1.1.1 Structural Diagram
- 1.1.2 UMLs

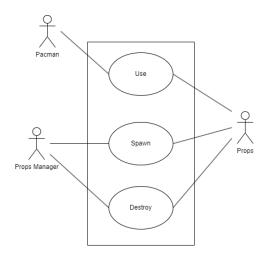
use-case diagram class diagram



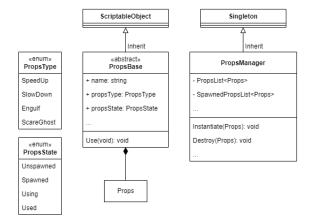
sequence diagram

- 1.1.3 Component Functionality
- 1.1.4 Major Procedure and Functions
- 1.2 Props Class
- 1.2.1 Structural Diagram
- 1.2.2 UMLs

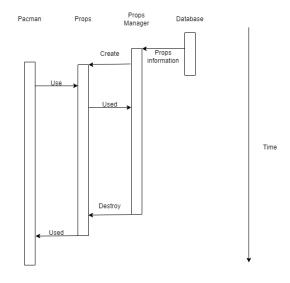
use-case diagram



## class diagram



## sequence diagram



### 1.2.3 Component Functionality

The props class is to provide the bases for game objects, such as pellets in the maze for Pacman to achieve scores, or other props that will enhance in-game experience.

## 1.2.4 Major Procedure and Functions

Use(void): The Use function is to obtain the action of using the prop, by destroying the prop from the maze.

Instantiate(Props): The instantiate function is to create the props for each game.

Destroy(Props): The destroy function is to destroy the prop from the maze for each game.

#### 1.3 Database

### 1.3.1 Structural Diagram

#### 1.3.2 UMLs

use-case diagram class diagram sequence diagram

### 1.3.3 Component Functionality

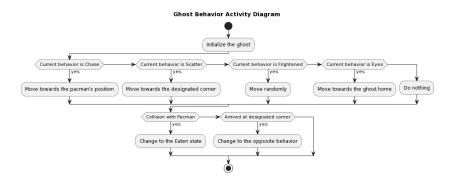
### 1.3.4 Major Procedure and Functions

### 1.4 Ghost Class

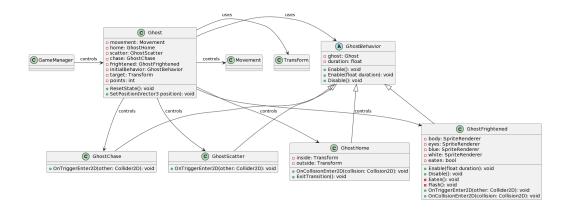
#### 1.4.1 Structural Diagram

#### 1.4.2 UMLs

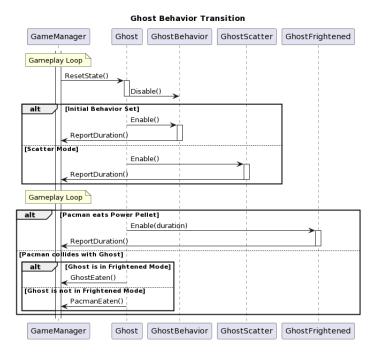
activity diagram



## class diagram



## sequence diagram



- 1.4.3 Component Functionality
- 1.4.4 Major Procedure and Functions

# 2 UI DESIGN

- 2.1 Login/Sign-up page
- 2.2 Title Screen
- 2.3 Shop UI
- 2.4 Setting UI
- 2.5 Main Game
- 2.6 Record page