

Kitten Train

Team 3rd Row

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CPSC 362 – Project Phase 3

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Due Date: 12/13/2017

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Revision History

Name	Date	Reason For Changes	Version
William Tran	12/1/2017	Add Music, fix cat position in levels, created powerups Added 5 more levels	2.1
Allen Sarmiento	12/2/2017	Animation	2.2
Viet Le	12/2/2017	Store and Achievements	2.3
Maria Hernandez	12/2/2017	Modified text formatting Fixed final collisions Fixed background	2.4
William Tran & Maria Hernandez	12/3/2017	Added unique background music to each level	2.5

Revised Project Plan

Business Requirements

The application provides a game with various levels that fulfill the following requirements:

- Fun to play
- Player progression
- Replayability
- Updates

Business Opportunity

We looked at other games that focus on minigames such as Mario Party, Warioware, and Rhythm Heaven. These games have generally favorable reviews so we understand this niche has promise to produce revenue.

This product will fit with market trends because the mobile game market is oversaturated with mobile games copying each other. There is little variety when searching for new, innovative games. There are currently less than 10 games focused on minigames and none of them are well known. If our project be placed on the front page of the play store, then there will be a huge influx of players testing our game because the product is way different than other competitors.

We want this product to grow in popularity so that advertisements can be added to the game. The ability for users to make purchases with actual money will be implemented as well.

Vision Statement

The product will receive a major update every other month, which includes:

- New game items
- New store items
- Updated art
- Additional levels

There will be bug fixes every other week.

Scope and Limitations

The scope of this project is to create a video game with various levels. Limitations to the project are that the team has no experience using Unity or coding in C#, has other priorities such as coursework, and no funds for character and object models, and sound effects.

The initial release will include a workable video game that includes:

- A menu
- Playable game level
- Basic art

There will be placeholders included in order to focus foremost on the playability of the game. The initial release will focus on only one level.

Subsequent releases will include:

- Adding more levels
- Different items
- Game polishing
- In-game store

The goal is to add more customization options and various levels to maintain customer interest.

Project Priorities

Dimension	Driver (state objective)	Constraint (state limits)	Degree of Freedom (state allowable range)
Schedule	release 1.0 to be available by 10/1, release 1.1 by 12/1	Schoolwork from other classes Part-time jobs	Work when we are in class together and on our own time
Features	Levels Menu Sounds Scores Store	No experience using Unity	70-80% of high priority features must be included in release 1.0
Quality	Improvement by the second and third phase	Limited amount of time	90-95% of user acceptance tests must pass for release 1.0, 95-98% for release 1.1
Staff	Have a lead developer and multiple programmers	Maximum team size is 5 developers	Have 1 lead developer and 4 or less programmers
Cost	Have a maximum of 50 dollars to spend	We have no sponsors or investments	Budget overrun up to 15% acceptable without lead developer review

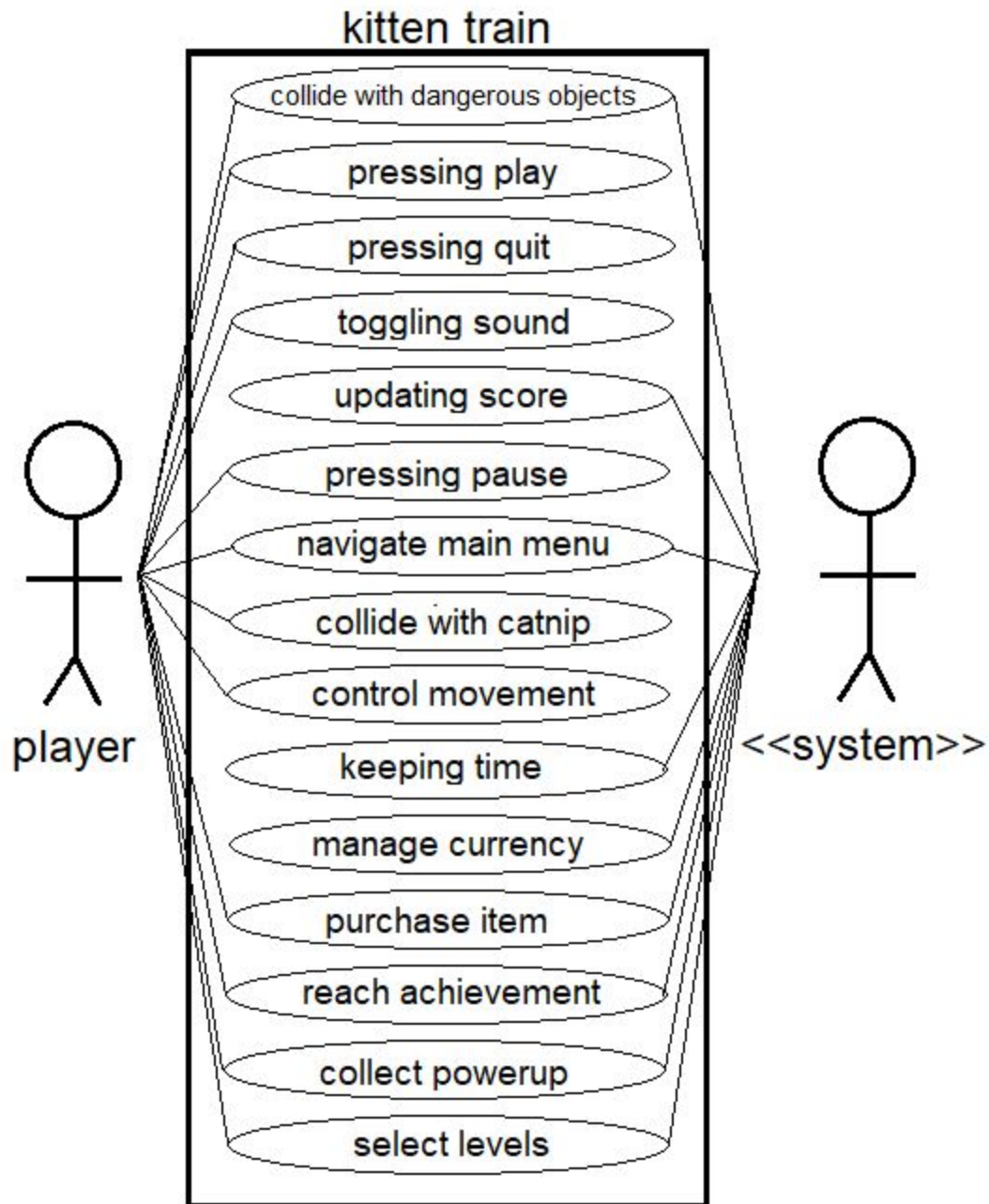
Operating Environments

Software required for this project:

- Unity
- Github

- Trello
- Dropbox
- Google Drive

Use Case Diagram



Use Case: Collide with Dangerous Objects

Id: UC - 001

Description: Player starts game. Player inputs a direction. Game changes cat's direction. Cat is shown to run into an object. System determines resulting event according to object hit.

Primary Actor: Player

Pre-Conditions:

The game must have started up properly.

The player must have selected 'start'.

The player must have selected the level

The player must have started the cat's movement with a direction input.

Post Conditions:

Success end condition

Collision and a respective event occurs when cat runs into an object.

Failure end condition:

Cat runs into an object and nothing happens. The game continues to function as if the collision has not occurred.

Main Success Scenario

1. Player starts the game.
2. Player inputs cat direction(s).
3. Cat movement.
4. Cat runs into an object.
5. Collision event occurs.

Extensions

4a. In step 4, if the player directs the character into an object:

1. If the object is a wall, system displays game over screen.
2. If the object is a plant, cat "train" lengthens by 2 kittens, score is incremented, and game continues.
3. If the object is the cat, system displays game over screen.
4. Use case resumes on step 5.

Use Case: Pressing Play

Id: UC - 002

Description: To start the menu to minigame

Primary Actor: Player

Pre-Conditions:

Player in level select

Post Conditions:

Success End Condition

User is now in control of a character in a level

Failure End Condition

Play button crash the game

Play button does not go to correct level

Play button doesn't respond

Main Success Scenario

1. Player press play button in menu
2. Player is in the level

Extensions

n/a

Use Case: Pressing Quit

Id: UC - 003

Description: To quit the minigame

Primary Actor: Player

Pre-Conditions:

Player in pause

Player in end game menu

Post Conditions:

Success End Condition

Player back to menu

Failure End Condition

Quit button crash the game

Quit button resumes the game

Quit button doesn't respond

Main Success Scenario

1. Player press quit in pause or end game menu
2. Player is now in the menu

Extensions

n/a

Use Case: Toggling Sound

Id: UC - 004

Description: To toggle music on/off

Primary Actor: Player

Pre-Conditions:

- Player in game
- Player in pause menu
- Mute button is pressed

Post Conditions:

Success End Condition

- Sound is turned on
- Sound is turned off

Failure End Condition

- Sound button doesn't respond
- Sound button crashes the game

Main Success Scenario

1. Player plays the game.
2. Player pauses the game.
3. Player presses mute button.
4. Sound is toggled on/off.

Extensions

n/a

Use Case: Updating Score

Id: UC - 005

Description: To update score when player collides with the appropriate object

Primary Actor: Player

Pre-Conditions:

- Player in game

Post Conditions:

Success End Condition

- Score updates when collide with appropriate object

Failure End Condition

- Score does not update
- Score shows incorrect numbers

Main Success Scenario

1. Player collides with the update score object
2. Stores the new score
3. Updated score is now displayed

Extensions

n/a

Use Case: Pressing Pause

Id: UC - 006

Description: To pause the minigame

Primary Actor: Player

Pre-Conditions:

Player in game

Post Conditions:

Success End Condition

User is now in a pause state

User can pick to either quit, resume, or mute background music

Failure End Condition

Pause button crash the game

Pause button doesn't respond

Main Success Scenario

1. Player press pause button in game
2. Player is in pause state

Extensions

n/a

Use Case: Navigate Main Menu

Id: UC - 007

Description: Game displays menu with possible options to choose from

Primary Actor: Player

Pre-Conditions:

Game must have started up properly

Post Conditions:

Success End Condition

Menu is displayed when the game begins. Player navigates the menu and selects from options. Option picked then begins.

Failure End Condition

Player is instantly loaded into the game without having displayed a menu. Player cannot select a option to load.

Player begins game, main menu is displayed but user is not able to select an option. Game must be closed.

Main Success Scenario

1. Player loads the game
2. Main menu is displayed
3. Player can select options from the menu

Extensions

n/a

Use Case: Collide with Catnip

Id: UC - 008

Description: To increase score and spawn a kitten behind the cat

Primary Actor: Player

Pre-Conditions:

- Player in menu
- Picking a level
- Player plays level

Post Conditions:

Success end condition

- Score is increased by 2
- Kitten spawns behind the cat

Failure end condition:

- No kitten is spawned
- Kitten is not following the cat
- Score is not increasing
- Score is increasing in a different amount

Main Success Scenario

1. Player starts the game
2. Cat collides with catnip
3. Kitten is spawn behind the cat and follows the cat
4. Score is increased by 2

Extensions

n/a

Use Case: Control Movement

Id: UC - 009

Description: Player inputs an appropriate button to move around.

Primary Actor: Player

Pre-Conditions:

- The game must have started up properly.
- The player must have selected 'start'.

Post Conditions:

Success end condition

- Character changes direction and speed according to player input.

Failure end condition:

- Player input does not change cat direction and cat continues moving forward.

Player input does not change cat speed and cat continues moving at original speed.

Main Success Scenario

1. Player starts the game.
2. Player inputs cat direction(s).
3. Cat changes movement.

Extensions

2a. In step 2, if the player attempts to control the cat with an input:

1. If the control input is key 'a', cat direction turns left.
2. If the control input is key 'd', cat direction turns right.
3. If the control input is key 'w', cat speed increases.
4. Use case resumes on step 3.

Use Case: Keeping Time

Id: UC - 010

Description: To countdown and end the game

Primary Actor: Player

Pre-Conditions:

Player in menu

Picking a game

Post Conditions:

Success End Condition

Timer goes to 0 by an increment of 1

Trigger end game menu

Failure End Condition

Timer doesn't move

Timer does not go down by an increment of 1

Timer goes into negative

Timer does not trigger end game menu

Timer crashes the game

Main Success Scenario

1. Player starts the game.
2. Player continues to input cat direction(s) until timer runs out.

Extensions

n/a

Use Case: Manage Currency

Id: UC - 011

Description: To save the points into currency and reduce currency when purchasing items

Primary Actor: System

Pre-Conditions:

The game must have started up properly.

The player must have selected 'start'.
The player must have selected the level desired
The game must end

Post Conditions:

Success End Condition

Character is shown and is able to be controlled
Game ends
Points are correctly added to currency

Failure End Condition

Points are not added to currency
Currency is different than it is intended

Main Success Scenario

1. Player starts the game.
2. Player is shown a cat
3. Cat is able to be controlled
4. Game ends
5. Gameover Screen shown
6. Points are added to currency

Extensions

n/a

Use Case: Purchase Item

Id: UC - 012

Description: To spend points from playing to buy items in the in-game store

Primary Actor: Player

Pre-Conditions:

Player in menu
Picking store

Post Conditions:

Success End Condition

Item is purchased
Price of item is deducted from points
Item is owned and/or accessible

Failure End Condition

Item cannot be purchased
Price is not deducted from points
Price is deducted from points, but item is not owned and/or accessible
Price is not deducted from points, but item is owned and/or accessible

Main Success Scenario

1. Player loads the game.
2. Player selects store.
3. Player purchases item.
4. Item is owned and/or accessible.

Extensions

n/a

Use Case: Reach Achievement

Id: UC - 013

Description: Player can reach certain set goals by playing the game

Primary Actor: Player

Pre-Conditions:

Player in menu

Picking a level

Player plays level

Post Conditions:Success End Condition

Achievement is completed and shown

Failure End Condition

Player reaches goal and achievement is not completed

Player reaches goal and achievement is not shown

Player does not reach goal and achievement is completed

Player does not reach goal and achievement is shown

Main Success Scenario

1. Player starts the game.
2. Player reaches a goal.
3. Achievement is completed.
4. Achievement is shown.

Extensions

n/a

Use Case: Collect Power Up

Id: UC - 014

Description: To add twists to the game levels with speed ups, score doubling, invincibility, etc.

Primary Actor: Player

Pre-Conditions:

Player in menu

Picking a level

Player plays level

Post Conditions:Success End Condition

Player collides with powerup and powerup effect is activated

Failure End Condition

Player collides with powerup and game ends

Player collides with powerup and nothing happens

Player collides with powerup and incorrect effect is activated

Player does not collide with powerup and effect is activated

Main Success Scenario

1. Player starts the game.
2. Player collides with a powerup.
3. Corresponding powerup effect is activated.

Extensions

n/a

Use Case: Select Levels

Id: UC - 015

Description: To pick a level

Primary Actor: Player

Pre-Conditions:

Player is in Main Menu

Post Conditions:

Success End Condition

Player goes into correct level

Game starts

Failure End Condition

Game does not start

Player goes into a different level than what is selected

Button does not activate

Main Success Scenario

1. Player starts the game
2. Player is in Main Menu
3. Player clicks 'start'
4. Player picks a level
5. Player goes into the level selected
6. Game plays

Extensions

n/a

User Stories

Functional

3rd Iteration

As a system, I want katnip collisions to not end the game, so that the score can be updated and the game will continue. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5	As a user, I want a store so that I can spend my points to purchase items. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5	As a user, I want achievements so that I have goals to accomplish. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5	As a user, I want powerups so that I can how to achieve a higher score. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5	As a user, I want multiple levels so that I can progress through the game. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5
1	2	3	4	5																									
1	2	3	4	5																									
1	2	3	4	5																									
1	2	3	4	5																									
1	2	3	4	5																									

2nd Iteration

As a game, I want to have wall collisions so that the game ends. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5	As a user, I want a play button , so that I can start the game. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5	As a user, I want a quit button , so that I can end the game. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5	As a user, I want a sound button so that I can unmute and mute <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5	As a user, I want to see my score so that I know how well I am doing in the game. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5
1	2	3	4	5																									
1	2	3	4	5																									
1	2	3	4	5																									
1	2	3	4	5																									
1	2	3	4	5																									

1st Iteration

As a user, I want a pause button so that I can stop the game when I need to and resume/continue later.	As a game, I want the menu options to change the game so that the user's requests are met.	As a game, I want to subtract the currency a purchase is made so there cannot be unlimited purchases.	As a user, I want to have game controls , so that I can move my character.	As a game, I want a timer , so that objects can be spawned within a certain amount of time.
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1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
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Non-functional

<p>As a user, I want to see a nice background so that the game has a view to represent the theme.</p> <p>“Viewability”</p> <p>1 2 3 4 5</p>	<p>As a user, I want to have in-game sounds so that I can be notified when an event occurs.</p> <p>“Notifiable”</p> <p>1 2 3 4 5</p>	<p>As a user, I want to be able to make an account so that I can save my game data.</p> <p>“Saveable”</p> <p>1 2 3 4 5</p>	<p>As a user, I want simple game controls so that I it is easy to remember.</p> <p>“Simplicity”</p> <p>1 2 3 4 5</p>	<p>As a user, I want the game to be entertaining so that there will be more users.</p> <p>“Entertainable”</p> <p>1 2 3 4 5</p>
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<p>As a developer, I want logs so that the bugs can be reported and fixed quickly.</p> <p>“Modificable”</p> <p>1 2 3 4 5</p>	<p>As a user, I want the game to not crash so that it can be played without any problems.</p> <p>“Reliability”</p> <p>1 2 3 4 5</p>	<p>As a user, I want to play the game on mobile so that I can take it anywhere.</p> <p>“Portability”</p> <p>1 2 3 4 5</p>	<p>As a user, I want transition scenes so that I can change up the game.</p> <p>“Replaceability”</p> <p>1 2 3 4 5</p>	<p>As a developer, I want the game to be secure so that users cannot cheat.</p> <p>“Security”</p> <p>1 2 3 4 5</p>
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Sprint Backlog

CPSC 362 Team Third Row ☆ Team Visible

First Iteration Feedback
(10/11/2017)
Some type of explosion when the game ends

Fix user stories

Menu needs a button or a tab. Include the following buttons: Play, Highscores, Tutorial, About, and Quit.

Scoreboard

Updating scores properly

Pause button that then allows: returning to menu, turning off sound, displaying current score

In Use Cases, names should be the same in the Use Case Diagram & use-case textual

Add a card...

Second Iteration Feedback
Work on color for the next time because it looks too dark

Save button needs to work

Change the levels to something in the middle

Make the third level a story mode

Fix user stories

Being able to choose a character and different types of katnip

Obstacles that the players eat and has more points but they come and disappear soon

Add a tutorial

Prize/Badge/Achievement for passing levels

Golden/Different color katnip that increase/decrease points

Add a card...

Bugs Found
Character starts floating after 1000 points (10/9/2017)

Multiple plants spawn (10/9/2017)

High score does not update properly (10/11/2017)

Timer continues after collision (10/25/2017)

The cat doesn't collide with the wall but dies (11/8/2017)

Add a card...

To Do
Fix user stories

Character selection

Turn Katnip into a Boss

Boss

Cross-platform with Android

Add a card...

Doing
Continue button

Add a card...

First Phase
Create a starting point for the game

Use Cases

Add timer for the game

Kitten Train (First phase)
0/8

First Iteration Documentation (10/11/2017)
0/11 14/14

5 Non-functional User Stories

5 Functional User Stories

Add a card...

Second Phase
Levels

Sounds

Pause button
0/3

Menu Buttons
5/5

Tutorial

Backgrounds + Terrains

Fix user stories

Revise Class Diagram

Kitten Train (Second phase)
4/10

5 more functional user stories (total of 10)

5 non-functional user stories (total of 10)

Use Cases for all 10 Functional User Stories

CRC Cards

Add a card...

Third Phase
Brighter background color

Saving score

Center the game modes

Animations

Store

Explosion when game ends

Achievements

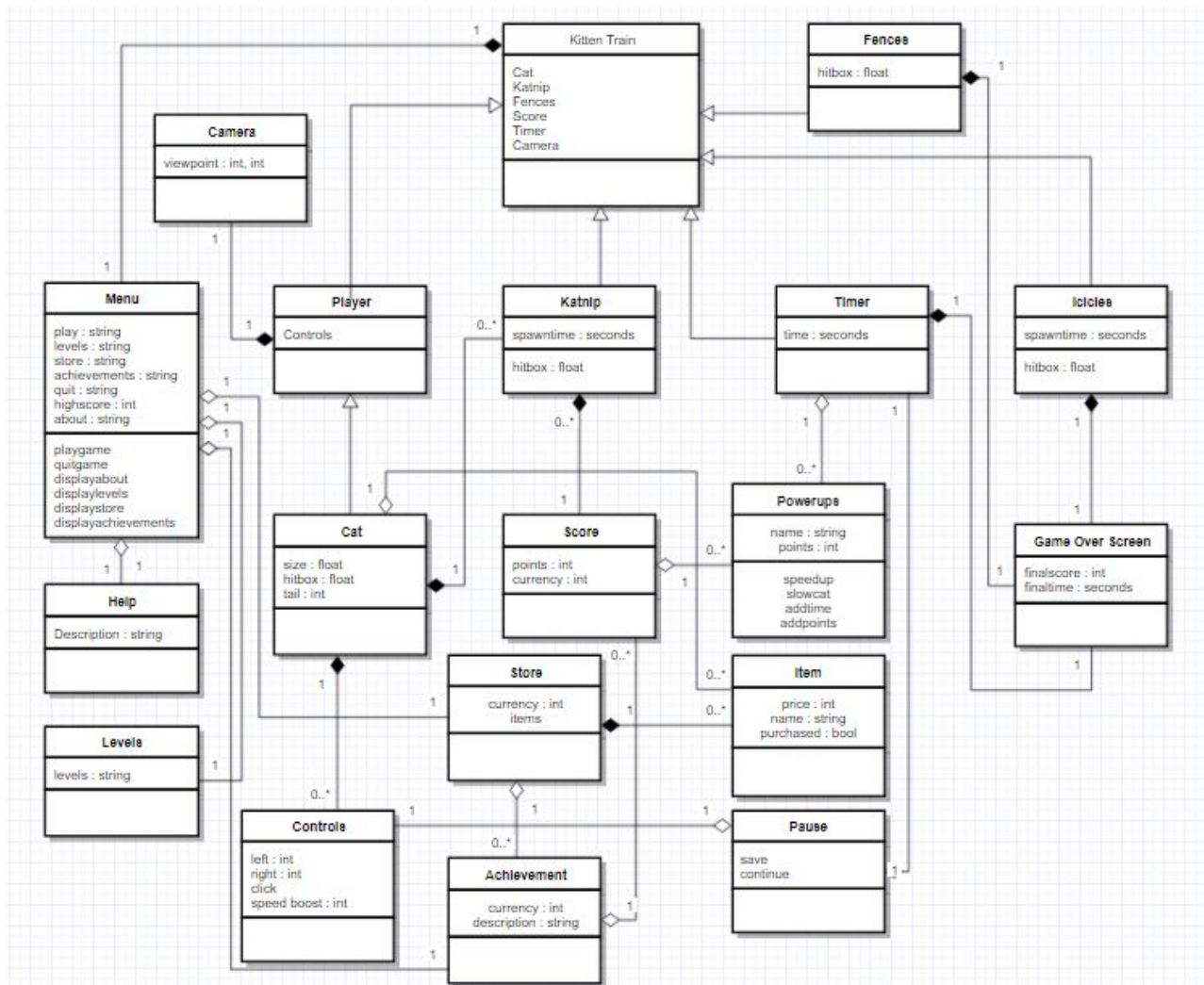
Powerups

Add a new asset and variable for power ups and bad katnip

Add Music
0/2

Add a card...

Class Diagram



CRC Cards

Kitten Train	
	Menu Player Katnip Fences Icicles

Menu	
Shows options	Kitten Train

Player	
Controls the character	Cat

Cat	
Functions as the main character Moves according to control input	Icicles Fences Controls Player Powerup Item

Controls	
Moves the character	Cat Pause

Timer	
Counts down Ends the scene when time is zero	Pause Game Over Screen Powerup

Game Over Screen	
Stops the game when a collision occurs Displays final score Displays options	Fences Icicles Timer

Pause	
Stops the current state of the game Displays a menu with options Stops the timer	Controls Timer

Icicles	
Causes collision for resulting game over screen Falls periodically during game	Game Over Screen Fences Cat

Fences	
Acts as boundaries for the game Causes collision for resulting game over screen	Game Over Screen Cat

Achievement	
Display goal reached	Fences
Reward currency points	Cat
	Levels

Store	
Display currency	Menu
Display items	

Levels	
Display levels	Menu

Powerup	
Add points to score	Timer
Increase cat movement speed	Cat
Decrease cat movement speed	Levels
Add time to the timer	

Item	
Display price	Store
Change cat visuals	
Decrease price from currency	

Test Cases

Test Case #: TC_01 System: Game Designed by: 3rd Row Executed by: 3rd Row Short Description: Test Collide with Dangerous Object	Test Case Name: Dangerous Collisions Subsystem: Level Design Date: 11/27/17 Execution Date: 12/2/17
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Pre-Conditions:

The game must have started up properly.
The player must have selected 'start'.
The player must have selected the level.
The player must have started the cat's movement with a direction input.

Step	Action	Expected System Response	Pass/ Fail	Comment
1	Start up the game.	Game starts and loads properly.	Pass	
2	Input cat direction(s).	System moves the cat in the direction entered.	Pass	
3	Cat moves	Cat continuously moves forward and in the direction entered.	Pass	
4	Cat runs into a dangerous object.	Collision event occurs.	Pass	

Post-Conditions:

1. Collision and a respective event occurs when cat runs into an object.
2. Game ends.

Test Case #: TC_02 System: Game Designed by: 3rd Row Executed by: 3rd Row Short Description: Test Pressing Play	Test Case Name: Press Start Subsystem: Menu Design Date: 11/27/17 Execution Date: 12/2/17
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Pre-Conditions:

Player in Main Menu
Player loads into level select scene

Step	Action	Expected System Response	Pass/ Fail	Comment
1	User selects Start	Level select scene opens up	Pass	
2	User selects level	Game begins	Pass	

Post-Conditions:

Player is in one of the levels

Test Case #: TC_03**System:** Game**Designed by:** 3rd Row**Executed by:** 3rd Row**Short Description:** Test Pressing Quit**Test Case Name:** Press Quit**Subsystem:** Menu, Game Over Screen**Design Date:** 11/27/17**Execution Date:** 12/2/17**Pre-Conditions:**

1. Player in pause.
2. Player in end game menu.

Step	Action	Expected System Response	Pass/ Fail	Comment
1	Player press quit in pause or end game in menu.	Player is now in the menu.	Pass	

Post-Conditions:

1. Player is back in menu.

Test Case #: TC_ 04	Test Case Name: Toggle Sound
System: Game	Subsystem: Pause Menu
Designed by: 3rd Row	Design Date: 11/27/17
Executed by: 3rd Row	Execution Date: 12/2/17
Short Description: Test Toggling Sound	

Pre-Conditions:

1. Player is in game
2. Player opens pause menu
3. Mute button is pressed

Step	Action	Expected System Response	Pass/ Fail	Comment
1	User clicks Pause button	Pause menu is opened	Pass	
2	Mute button is selected	Background music is muted	Pass	
3	Mute button is selected again	Background music is not muted	Pass	

Post-Conditions:

1. Sound is turned off
2. Sound is turned on after pressing twice

Test Case #: TC_05	Test Case Name: Update Score
System: Game	Subsystem: N/A
Designed by: 3rd Row	Design Date: 11/27/17
Executed by: 3rd Row	Execution Date: 12/3/17
Short Description: Testing Updating Score	

Pre-Conditions:

1. Player in game.

Step	Action	Expected System Response	Pass/ Fail	Comment
1	Player collides with the updated score object.	Score is updated.	Pass	
2	New score is stored.	System stores the score.	Pass	
3	Updated score is now displayed.	Player can see the updated score.	Pass	

Post-Conditions:

1. Score updates when collide with appropriate object.

Test Case #: TC_06

Test Case Name: Press Pause

System: Game

Subsystem: Level

Designed by: 3rd Row

Design Date: 11/27/17

Executed by: 3rd Row

Execution Date: 12/2/17

Short Description: Test Pressing Pause

Pre-Conditions:

1. Player in game

Step	Action	Expected System Response	Pass/ Fail	Comment
1	User presses pause	Game pauses	Pass	

Post-Conditions:

1. User is now in a pause state
2. User can pick to either quit, resume or mute background music

Test Case #: TC_07

Test Case Name: Navigate Menu

System: Game

Subsystem: Main Menu

Designed by: 3rd Row

Design Date: 11/27/17

Executed by: 3rd Row

Execution Date: 12/3/17

Short Description: Test Navigating Main Menu

Pre-Conditions:

1. Player starts the game

Step	Action	Expected System Response	Pass/ Fail	Comment
1	Player selects "Start"	Player goes to level selector	Pass	
2	Player selects "Store"	Player goes to Store page	Pass	
3	Player selects "About"	Player goes to About page	Pass	
4	Player selects "Instructions"	Player goes to Instruction page	Pass	
5	Player selects "Achievements"	Player goes to Achievement page	Pass	
6	Player selects "Quit"	Exit the game	Pass	

Post-Conditions:

Each page can go back to Main Menu by pressing on the Main Menu button

Test Case #: TC_12**System:** Game**Designed by:** 3rd Row**Executed by:** 3rd Row**Short Description:** Test Purchase Items**Test Case Name:** Buy Item**Subsystem:** Store**Design Date:** 11/27/17**Execution Date:** 12/3/17**Pre-Conditions:**

1. Player in menu.
2. Player picking store.

Step	Action	Expected System Response	Pass/ Fail	Comment
1	Player selects "Store" in Main Menu	Go to the Store page	Pass	

2	Player click on an item	Item state transition from not bought to bought	Fail	
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Post-Conditions:

Player can go back pressing Main Menu button

Test Case #: TC_ 13

Test Case Name: Achievements

System: Game

Subsystem: N/A

Designed by: 3rd Row

Design Date: 11/27/17

Executed by: 3rd Row

Execution Date: 12/3/17

Short Description: Test Reach Achievements

Pre-Conditions:

Player in Main Menu

Step	Action	Expected System Response	Pass/ Fail	Comment
1	Player press "Achievements" in Main Menu	Go to the Achievement page	Pass	

Post-Conditions:

Player can press Main Menu button to go back

Test Case #: TC_ 10

Test Case Name: Keep Time

System: Game

Subsystem: N/A

Designed by: 3rd Row

Design Date: 11/27/17

Executed by: 3rd Row

Execution Date: 12/3/17

Short Description: Test Keeping Time

Pre-Conditions:

Player in Main Menu

Player selects Level

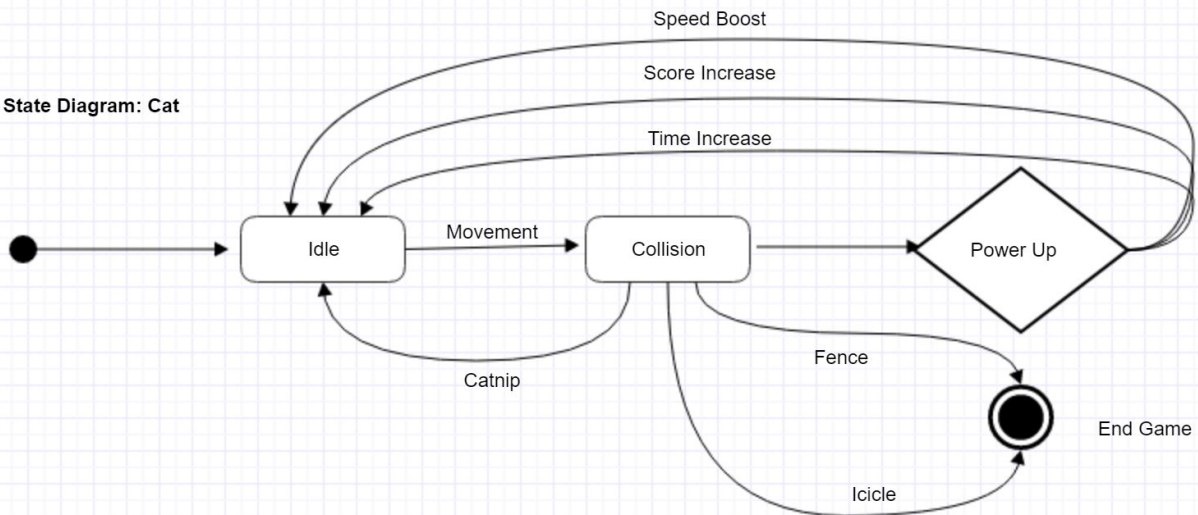
Step	Action	Expected System Response	Pass/ Fail	Comment
1	Player press "Start" in Main Menu	Go to level selector	Pass	
2	Player is in level	Go to specified level	Pass	
3	Time is changing	Time is counting down	Pass	

Post-Conditions:

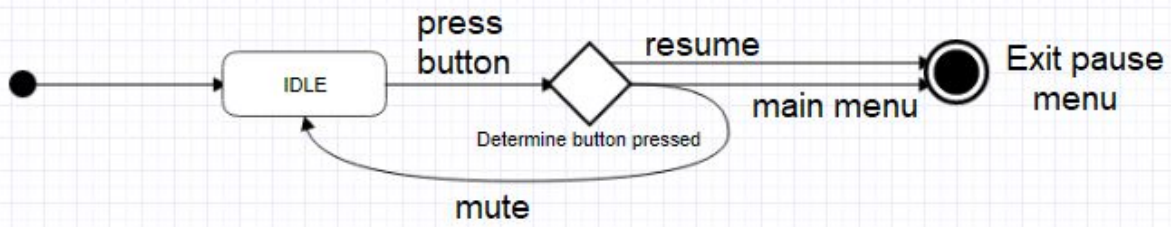
When Timer equals 0, go to game over screen

State Diagram

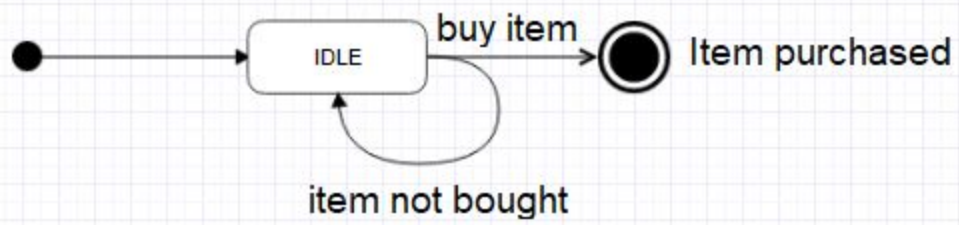
State Diagram: Cat



PAUSE MENU

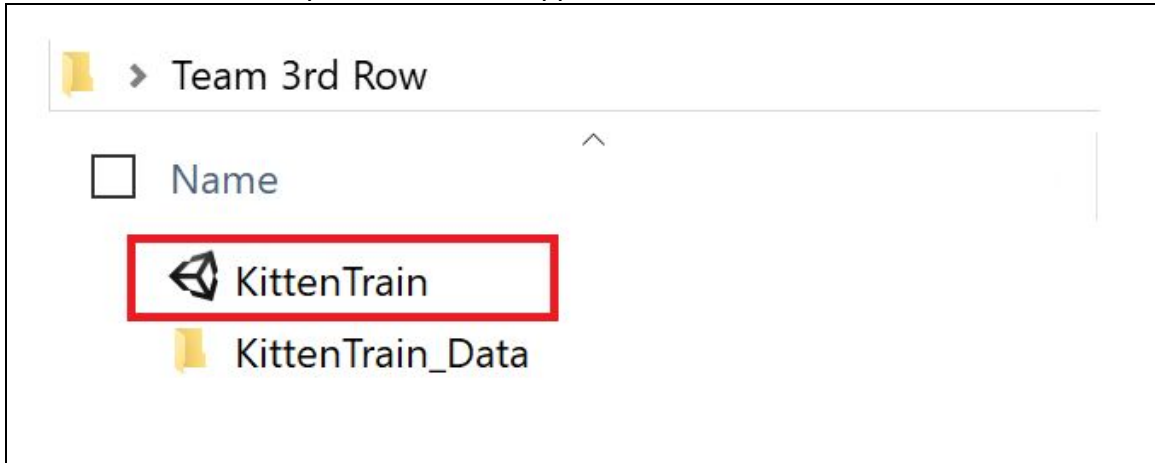


ITEM IN STORE

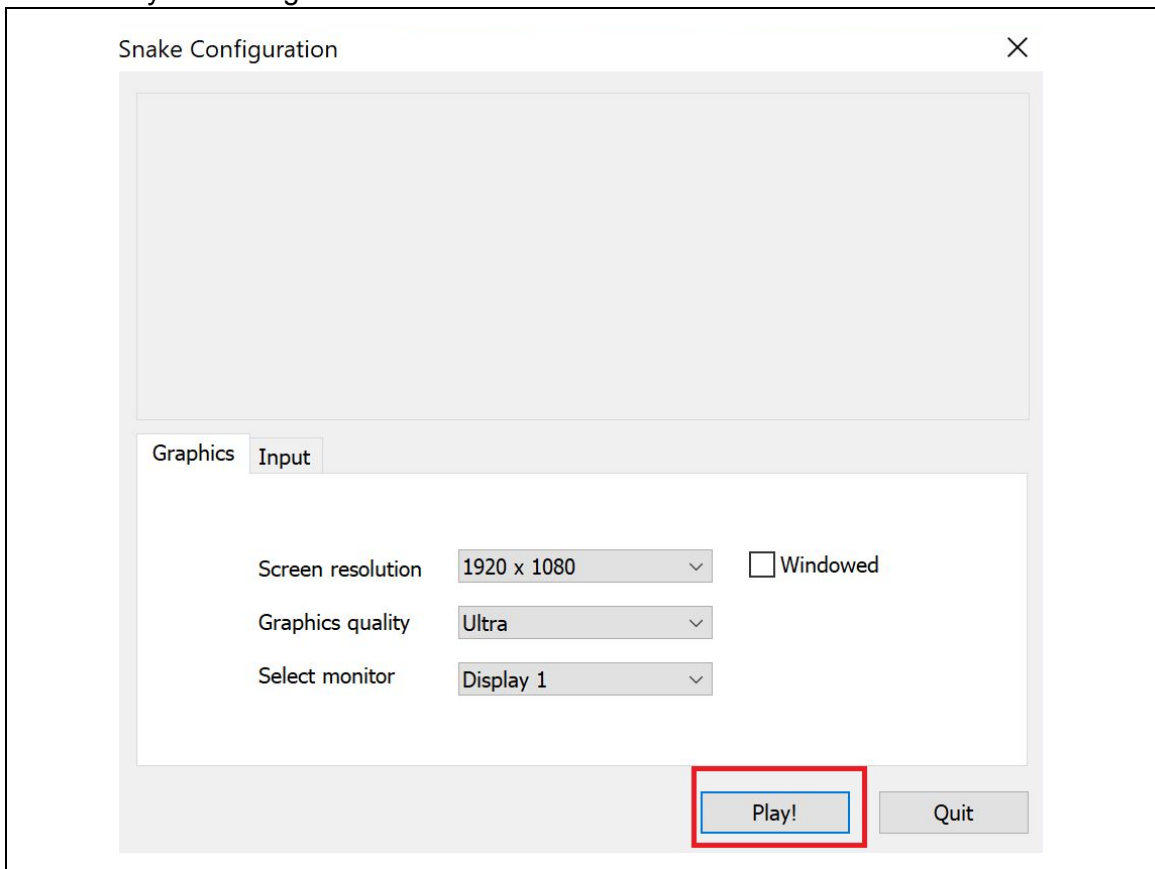


User Manual*

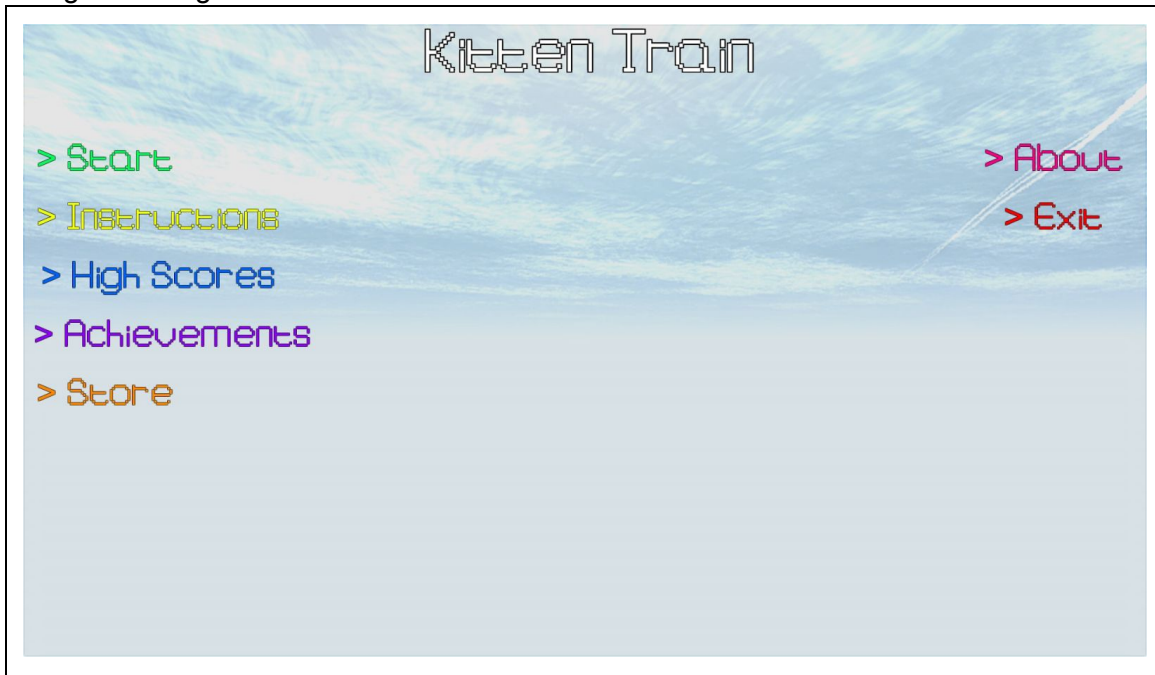
1. Download file. Download zip file and extract files to any folder on your desktop.
2. Click on the .exe file. Open *Kitten Train* Application



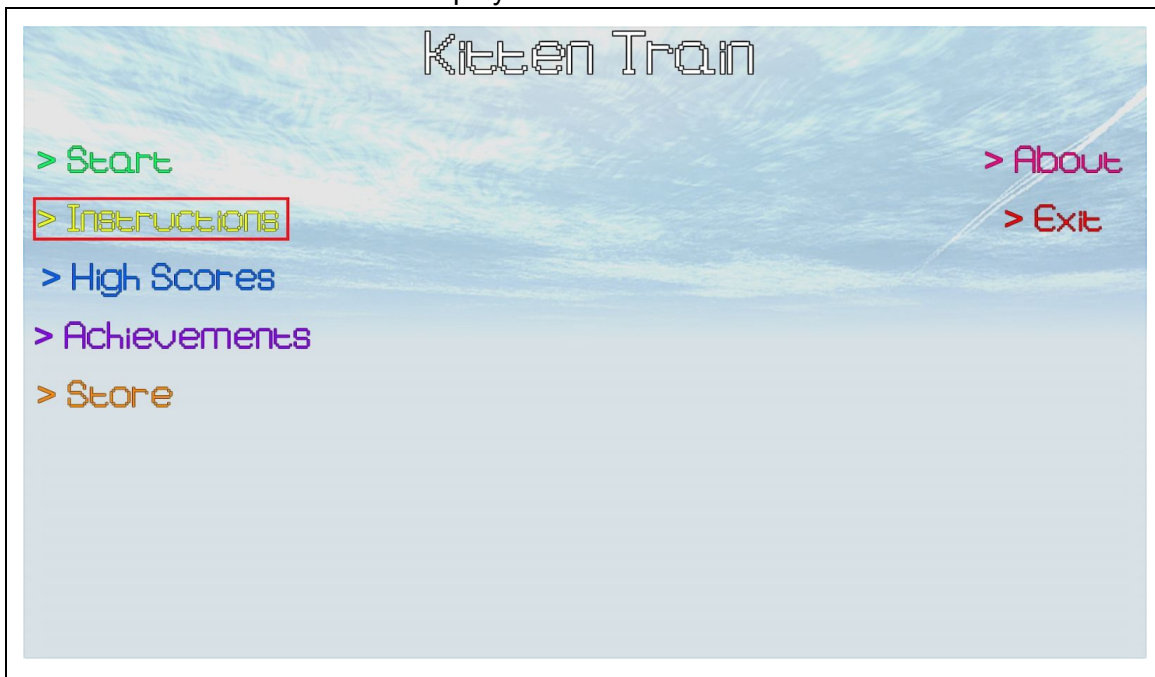
3. Select "Play!" to load game.



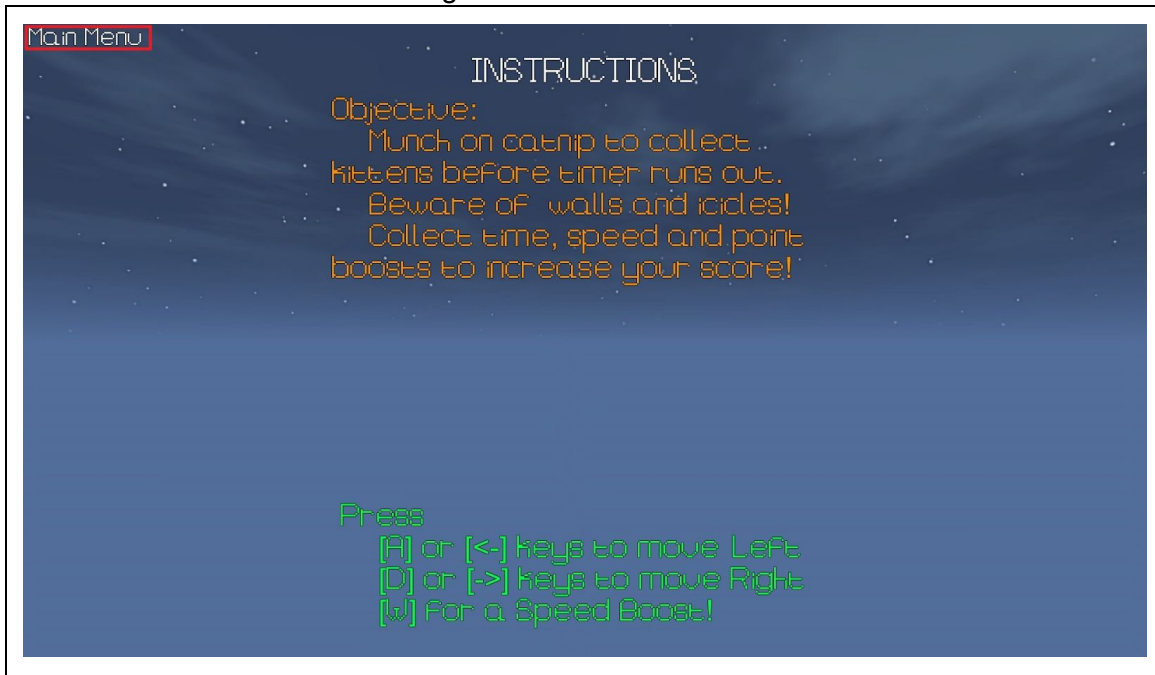
4. Navigate through the Main Menu



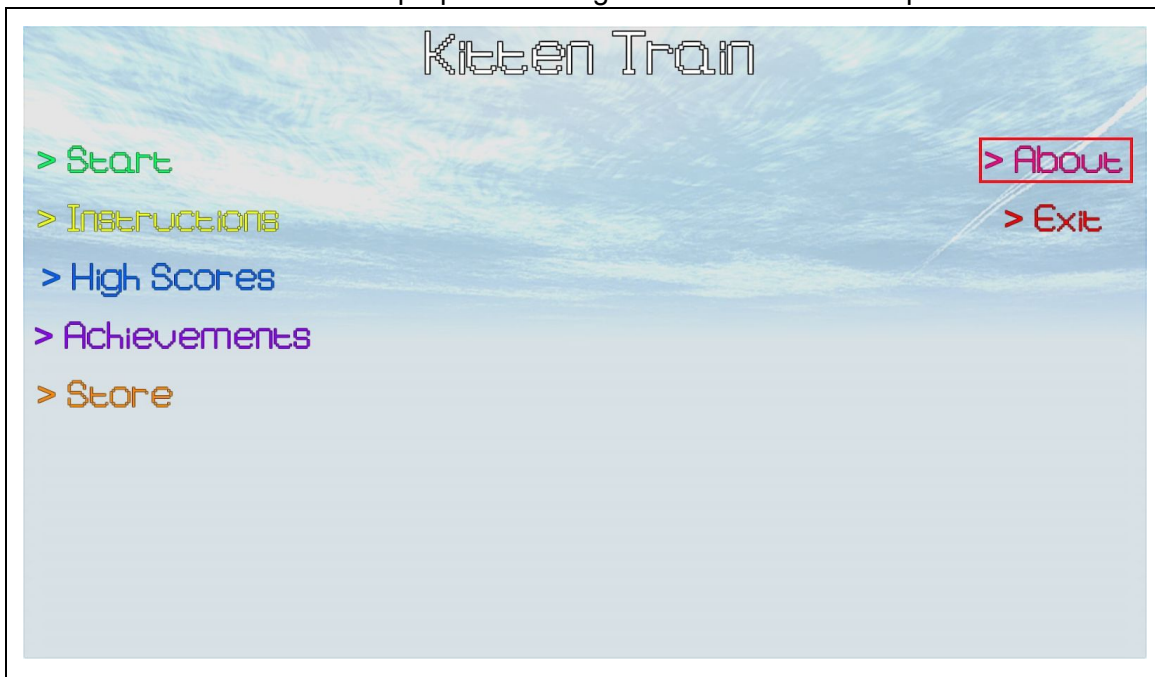
5. Select Instructions to learn how to play.



6. Click on the Main Menu button to go back.



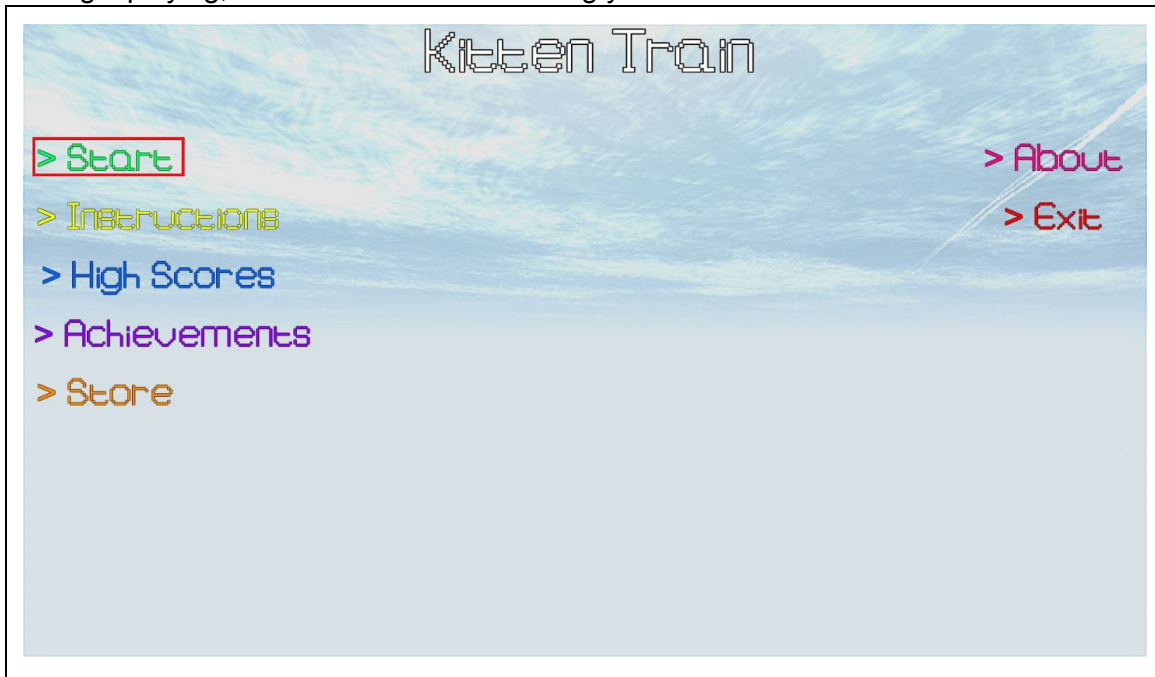
7. Click About to learn about the purpose of the game how it was developed.



8. Once again hit Main Menu to return to the main menu.



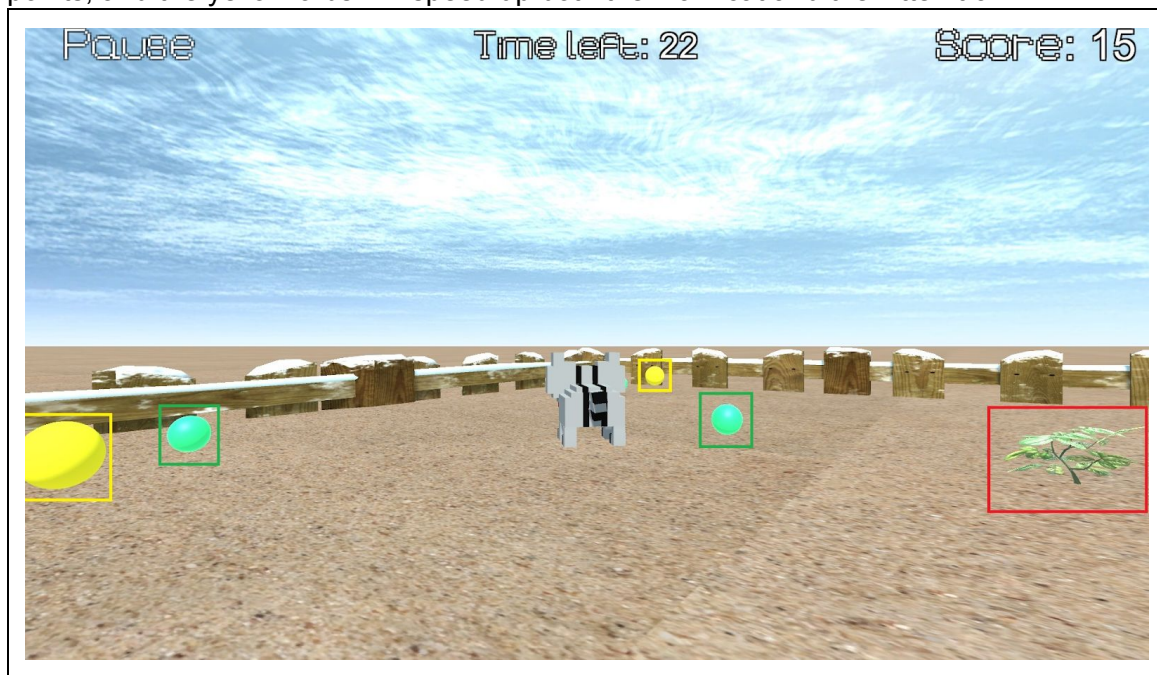
9. To begin playing, click on Start. This will bring you to the level selection.



10. Once at level selection, click on the first level to begin playing.



11. Once in the level, there are different objectives to be collected. These will ultimately lead to more points. The catnip in the red rectangle will extend your train by 1 kitten each catnip, and are worth one point. The green orbs in the green rectangles are worth 10 points, and the yellow orbs will speed up both the main cat and the kitten train.



12. Once the timer runs out, the game is over. Your final score is displayed, and there are two options. To play again, simply hit Play Again. To completely exit the application, hit Quit Game instead.



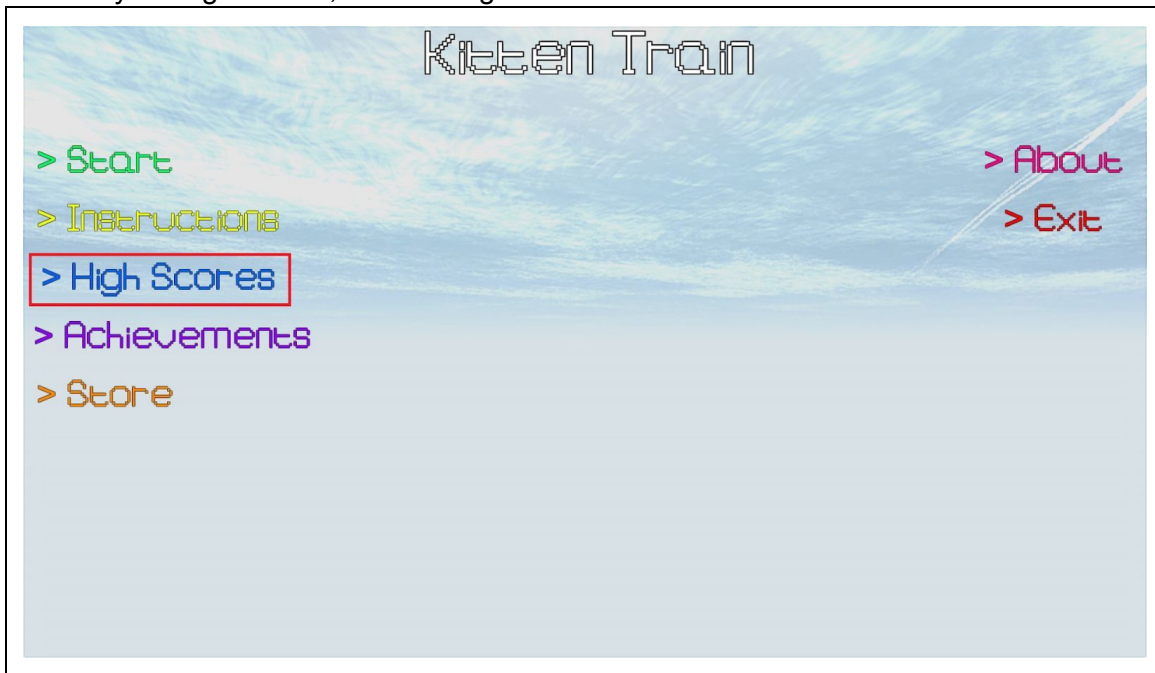
13. For other options, hit Pause to return to the main menu.



14. To return to the main menu from the pause menu, simply hit the Main Menu button.

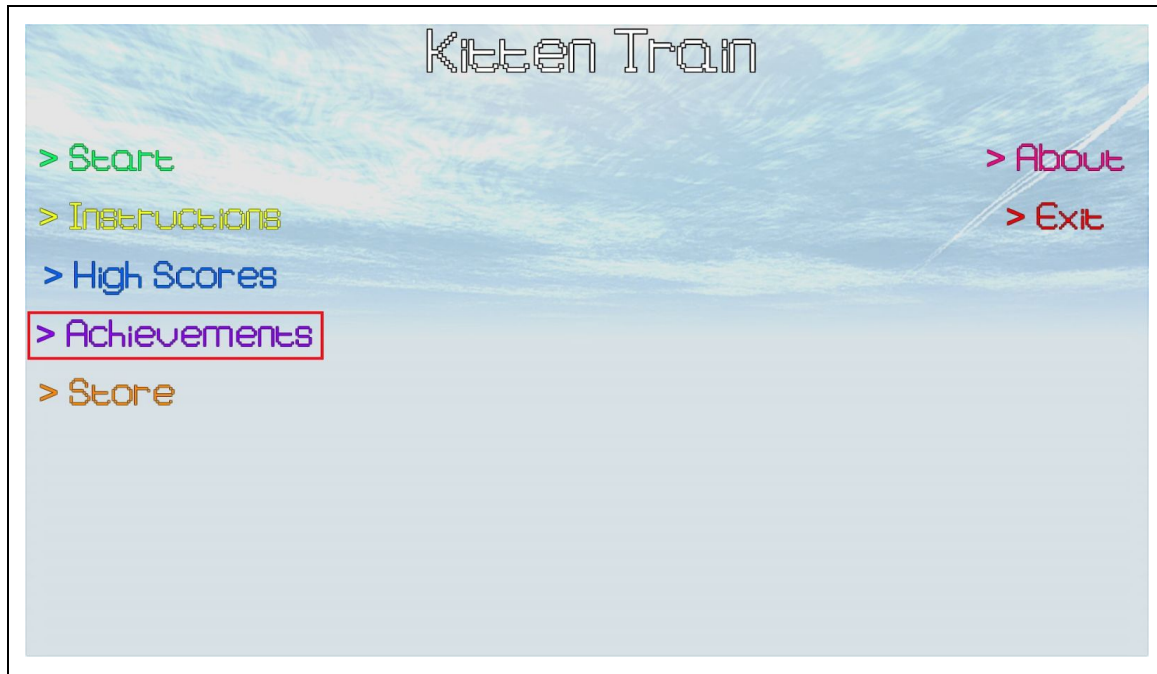


15. To play again on a different level, simply navigate to Start and select a different level.
Alternatively, navigate to step 9 in the User Manual.
16. To view your high scores, click on High Scores in the Main Menu.



17. To return to the main menu, simply hit the Main Menu button in the top left corner.

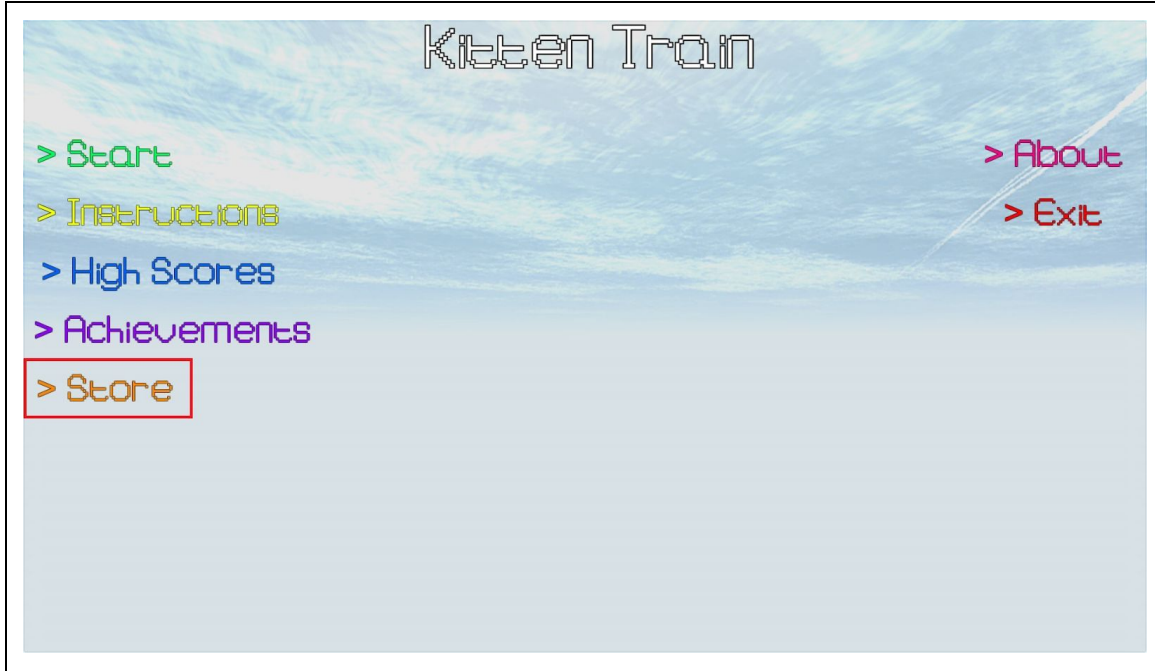
18. To view possible achievements to earn, click on the Achievements button in the Main Menu.



19. In the Achievements menu, you can see what achievements you can earn. In each panel, the top is the achievement name, followed by the description, which is how the achievement is earned. The achievements are not complete and will be fully implemented at a further time. To return to the main menu, tap the Main Menu button.



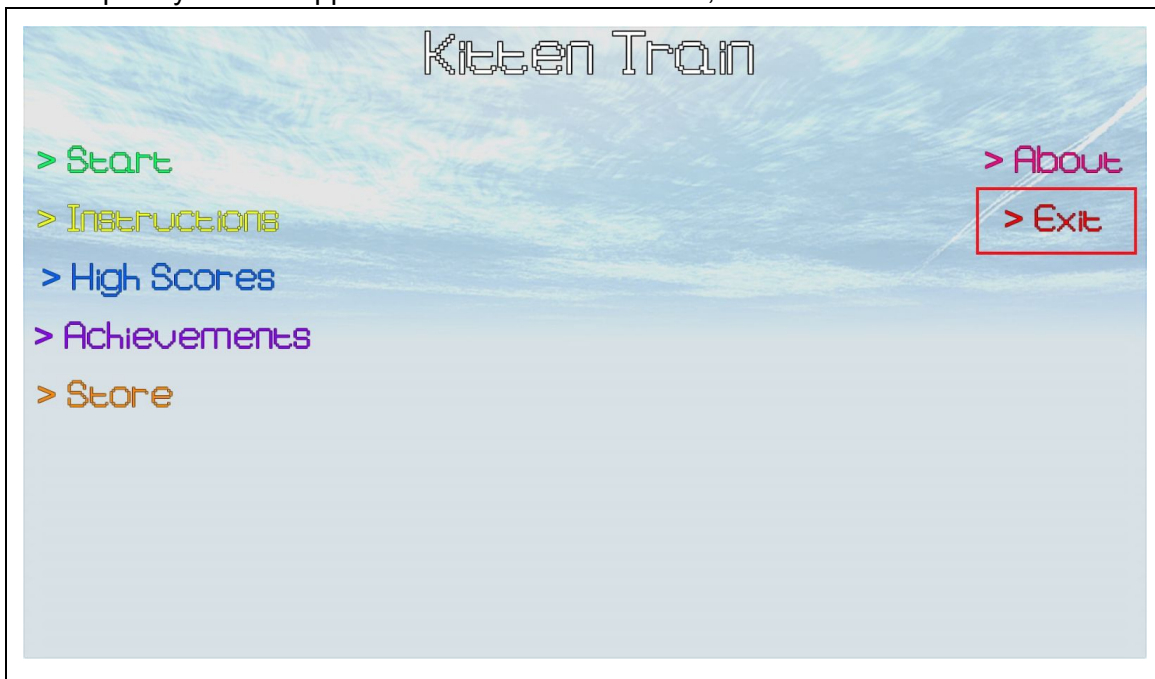
20. To navigate to the store from the main menu, click on the Store panel.



21. The store menu contains items that are purchasable. Points are earned from completing levels and playing the game. The store isn't fully implemented, and will be completed fully at a further date. To return to the Main Menu, hit the Main Menu button.



22. To completely exit the application from the Main Menu, hit Exit.



References

Mario Party Series Quick Review:

<https://www.youtube.com/watch?v=A6uU8F5FIpw>

Rhythm Heaven Video Review by GameSpot

<https://www.youtube.com/watch?v=RJxGI4v6qR8>

Wario Ware: Smooth Moves Nintendo Wii Review

<https://www.youtube.com/watch?v=KLO7QOXlvHo>

Unity - Roll-a-ball tutorial

<https://unity3d.com/learn/tutorials/projects/roll-ball-tutorial>

Unity - How To Make Snake 3D

https://www.youtube.com/watch?v=7SB1IQN3MtE&list=PL47vwJBRNh1yn_29bPEg-xO9GOasPH2-g

Unity Tutorial | Spawning Random Enemies at Random Times and Positions

<https://www.youtube.com/watch?v=WGn1zvLSndk>

[Unity3D] Destroying object on collision (with sounds)

<https://www.youtube.com/watch?v=iWktNH70ZcQ&t=105s>

Unity 5 Third Person Camera [Tutorial][C#] - Unity 3d

<https://www.youtube.com/watch?v=Ta7v27yySKs&t=386s>

Unity 3D Tutorial Part 2: Importing models and textures

<https://www.youtube.com/watch?v=BWrl0E1gO7g>

Unity 3D Overview: Accessing Other Game Objects

https://docs.unity3d.com/412/Documentation/ScriptReference/index.Accessing_Other_Game_Objects.html

Easy Way to Disable and Enable Object - Youtube

<https://www.youtube.com/watch?v=adPuNP57kLw&t=346s>

How To Make Countdown Timer? - Youtube

<https://www.youtube.com/watch?v=QIaH-mVtU08>