**Game Engine Document**

CODE OR DIE

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# Overview

## Theme / Setting / Genre

You are a dispatcher for a water taxi company to The Toronto Islands, it is your job to make sure your boats don’t run into any problems out on in the harbor and to keep passengers happy.

## Core Gameplay Mechanics Brief

- Clicking on your boats to give the instruction

- Managing your fuel and passenger capacity

- Avoiding obstacles

- Safely navigation through rough weather

- Passenger Rush

## Targeted platforms

- Windows PC

- Mobile Android/iOS

## Project Scope

- <Game Time Scale>

- two to three months

- <Team Size>

2 Members

- Austin Eathorne

- code, pixel art, design.

-Neil Hansen

-code, design, concept.

## Influences (Brief)

While working for a water taxi company over the summer as a dock worker and a driver, I could see all aspects of how the company ran everything and very familiar with all day to day operations. As I was working one day I was thinking it would be fun to make a game about the water taxi that would simulate a day on the water making game mechanics around the taxi operations. Passenger capacity, fuel levels, weather conditions, crowd rushes, and the time of day are just some of the factors the come in to account on any given day.

## The elevator Pitch

Manage your fuel and passenger capacity on multiple boats to bring everyone over to the islands to their desired locations as quick as you can. Watch out for changing weather conditions and obstacles in your boat’s path, which could potentially slow you down. Get back to land as quickly as possible, so your waiting passengers don’t leave.

## 

## Core Gameplay Mechanics (Detailed)

### - <Core Gameplay Mechanic #1> - Random Weather System

- <Overview>

Random weather system to simulate rain, wind and waves. It changes the conditions on the water, potentially forcing the player to use more fuel or lower passenger capacity.

- <How it works>

Will apply different forces and increase or decrease fuel consumption to simulate different weather conditions on the water.

### - <Core Gameplay Mechanic #2> - Fuel/Passenger Management

- <Overview>

While going back and forth dropping passengers to the island, the player needs to avoid running out of fuel and getting stuck out in the middle of the harbor. Based on weather conditions you may have to lower passenger capacity.

- <How it works>

The player will have to monitor fuel levels for each boat. It will cost some of the daily profit to refuel. Fuel consumption will be based on length of trip and weather conditions.

### - <Core Gameplay Mechanic #3> - Floating Obstacles

- <Overview>

While making trips to the island, the player must navigate obstacles to avoid damage to their boat. If one of the player’s boats has taken too much damage, it must be brought back to the marina where it will remain until the next day.

- <How it works>

Obstacles will randomly wander around the harbor and can be affected by weather conditions.

### - <Core Gameplay Mechanic #4> - Passenger Rush

- <Overview>

Passenger volume will fluctuate throughout the day, with large amounts of passengers heading in one direction or the other, simulating rush hour.

- <How it works>

During peak times of the day, passenger volume at certain docks will increase, making the demand for multiple boats needed in one direction greater.

# Story and Gameplay

## Story (Brief)

You are a dispatcher for a water taxi company. Your task is to manage your boats, and become successful.

## Story (Detailed)

You are a Water Taxi Dispatcher, you must manage your boats to avoid damage, keep customers happy, and turn a profit. You control up to three boats. Maintain the right number of passengers with enough fuel to make it back to a dock, while navigating obstacles and the changing weather conditions.

## Gameplay (Brief)

Tap or click on your boats to give them instructions. Manage

## Gameplay (Detailed)

The player will need to tap or click on their boats to give them directions to avoid obstacles, refuel, check passenger count, or pick a destination. Players will have to keep a look out for obstacles to avoid their boats being damaged, as well as monitor their fuel meter and passenger capacity to make sure they don’t have to re-fuel or have too many passengers. Watch the weather to stay away from dangerous conditions. Manage a day/night cycle that involves passenger rushes. Try to get everyone home and make some money.

# Assets Needed

## - 2D

- Textures

- Environment textures

- Crowd textures

- Boat textures

## - 3D

- Characters List

- Pirate boats

- Enemy boats

- Obstacles

- Environmental Art Lists

- Waves

- Docks

## - Sound

- Music

- Day

- Night

- Rush hour

- Sound List (Ambient)

- Waves

- Crowds

- Storms

- Passengers

- Sound List (Player)

- Boat motor

- Boat horn

- Boat collision

- Boat damaged

- Other

-Game Over

## - Code

- Boat Controller

- Boat

- Movement

- Fuel (add(), remove(), count())

- Passengers (add(), remove(), count())

- Dock Controller

- Passengers (add(), remove(), count())

- Obstacle scripts

- Movement

- Damage

- Day/Night cycle

- Weather Patterns

## - Animation

- Player

- Idle/moving

- NPC

- Idle/moving

- Passenger

- Idle/moving