**RentRace Design Overview**

A Pacman-inspired game with Incremental game elements.

**Pitch**

RentRace is spin on an arcade classic for mobile platforms, introducing new elements of resource and property management to the game. You play as an Investor, building up capital and then investing in property. As you navigate the level collecting coins, you will need to avoid hazards until you can safely purchase property, after which you can collect Rent from the Tenants and maintain the property to keep the Tenants happy.

**Overview**

The Game is set in modern times, portrayed with colourful pixel graphics from a bird’s eye perspective. As of yet, we are not sure what should represent the properties (Divisions of REA Group, suburbs?). The game’s basic early elements will play a lot like Pacman, with the player navigating a maze and collecting Points/Money while avoiding hazards. If the player collides with a hazard then they will drop the money that they are carrying. The player can safely store their money in 2 ways: Storing it in the bank, or by purchasing property. By purchasing property, the player will gain an extra source of income, which will spawn over time around the property and require the player or an Agent to pick it up. If the property is left unattended for too long then it can become damaged or may attract vandals, which decrease the income dropped and might even scare away your tenant. To help manage property, the player can hire an agent, who for a small fee will help manage your investments for a short period of time.

**Victory and Loss Conditions**

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| **Victory Conditions** | **Loss Conditions** |
| Reaching a loss conditions with a higher score than other players | If the player cannot afford to maintain basic expenses for too long |
|  | If the player neglect too many properties then they get sued by tenants |

**Active Challenges**

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| --- | --- | --- | --- |
| **Challenge Goal** | **Player Action** | **Feedback to Action** | **Action Validation** |
| Move Player Character to collect points | Using the controls (TBC) the player will navigate their character around the maze to collect points | Players can see where the points are and see they have collected points | Character movement can be seen reacting to player input |
| Invest in Property | By Interacting with the property, the player can purchase it and turn it into a returning investment | Players will have visual and audio feedback when they interact with the property | Character will purchase property |
| Maintain Property | To gather the return on the invest, the player must visit the property. If property is neglected for too long, then the property will not return any money and the tenant might sue | Players will be able to see the property when it is on screen and see the current state of it. If the property starts becoming neglected then a warning will notify the player |  |

**Internal Economy**

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| --- | --- | --- | --- | --- | --- |
| **Tangible Resources** | **Value** | **How is it exchanged** | **Negative Feedback Mechanism** | **Positive Feedback Mechanism** | **Random Elements** |
| Money/Points | 1 coin = 10 points | Money can be exchanged for Property (and upgrades?) that can be used to increase point gain rate. | There will be muggers around that can steal from the player | Investing in property or depositing money in the bank will keep it safe and increase score acquisition rate. | Spawn position of points, spawn area of muggers |
| Bank | Generates based on how much money the player has in the bank | The Player can go to the bank and deposit the money they are carrying into the bank. The Bank will then generate income based on how much money is contained | Less efficient than property | Passive income generation | Maybe banks can crash?? |
| Property | Variable Value | Purchased with score | The player needs to interact with the properties to collect the money and spend time and money on upkeep. | Increases overall spawn rate of coins | Property can come under attack that results in damage |
| Agents | Their return depends on how many properties you own and how far away they are | Purchased with score, and in exchange they gather score for you from your properties | Agents have a cool-down between patrols of properties | Retrieve points so the player can focus elsewhere | Can Agents get mugged? Maybe sometimes you get a bad agent? |

**Operational Rules of the Game**

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| --- | --- | --- | --- | --- |
| **Name** | **Description** | **Global or Local** | **Impacts On…** | **Relates to Constitutive** |
| Property Ownership | Property can be bought by the player when they have sufficient score | Global | Property and score | Property Interaction |
| Property Damage | Property damage will accumulate over time | Global | Properties in the level | Property Interaction |
| Coins | Coins spawn over time as well as additional spawns near purchased properties | Global | Score and ability to purchase property | Coin Interaction |
| Walls | Walls will frame and complicate the level, forming a maze-like structure for entities to navigate | Global | Entities and Movement | Wall Interaction |

**Constitutive Rules of the Game**

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| --- | --- | --- | --- |
| **Name** | **Global or Local** | **Implementation** | **Relates to Operational** |
| Wall Interaction | Global | Walls will block the pathing of all entities | Walls |
| Coin Interaction | Global | When the Player collides with coins, their score will increase | Coins |
| Property Interaction | Global | When the player is near property they will be prompted to interact with it (options will be greyed out if they aren’t affordable) | Property Damage  Property Ownership |

**Implicit Rules of the Game**

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| **Name** | **Description** | **Impacts on…** |
| The Player won’t pause the game to analyse the game state | The player should not pause to figure out the optimal next move/set of moves. Instead, they ought to race against the hazards. | Gameplay |

**Description of Game Mechanics using the Rules**

In the beginning of the game, the player will need to gather coins to increase their score, while avoiding Muggers and storing their coin in the bank. The bank will passively gain interest, but not much. When the player can afford property, they can purchase it by standing near it. Once the player owns property, it will passively generate a limited amount of income which it will store until the player or a hired Agent come to collect it, at which point generation will resume. If the property isn’t visited often, then the property will begin to degrade, which slows income rate and can cause tenants to sue. Vandals can also attack buildings and increase degradation.

**Goals**

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| **Goals** |
| To play for as long as possible |
| To reach a loss state with a higher score than other players |
| To keep properties safe from vandals and damage |
| To avoid muggers and maintain score |

**Player Psychology**

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| --- | --- | --- | --- |
| **Goal** | **Psychological Strategy** | **How Game Design Employs this Mechanism** | **How the mechanism achieves the goal** |
| To play for as long as possible | Classical Conditioning | If the player plays for longer, they are more likely to gain a higher score | The player will make an association between the length of the game and their score |
| To reach a loss state with a higher score than other players | Reward | The game will keep track of High Scores so that people can talk to their friends and show off. | The player will feel accomplished |
| To acquire points | Classical Conditioning | The Game will play a pleasant sound and the score will increase | The player will associate the pleasant sound and increase in score with the action of point gathering and follow a positive feedback loop. |
| To acquire property | Operant Conditioning | When the player acquires property, they can gather coins faster | Income is generated at a fixed interval which causes the player to regularly check in with the property |
| To keep properties safe from vandals and repair damage | Operant Conditioning | When the player’s properties are safe and maintained, they produce more income. When they are damaged and neglected, this hurts the player’s score and may lead to a loss state. | Basic damage occurs at a fixed interval, whereas Vandals will damage at a variable interval. This causes the player toned to be alert and sometimes sacrifice other goals to ensure the properties are safe. |

**Platform Aspects**

The main platform for this project is Mobile (Both IOS and Android), with a large bulk of the devices being at most 3 years old. This project will also be ported to tablets and may possibly make a windows/arcade version for REAIO 31. The “Arcade Machine” would be a glorified Microsoft Surface enclosure with mounted controls.

**Primary Audience**

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| --- | --- | --- | --- | --- |
| **Age** | **Gender** | **Cultural Background** | **Primary Play Method** | **Gameplay Motivation** |
| 20 - 50 | 50-50 split | Australian audience at REAIO | Mobile, Tablet | Fun simple game with potential for high-level play |

**Secondary Audience**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Age** | **Gender** | **Cultural Background** | **Primary Play Method** | **Gameplay Motivation** |
| 20 – 50 | 50-50 split | Australian audience at REAIO | Mini Arcade Cabinet | Fun simple arcade experience with physical controls and potential for high-level play |

**Evidence of Similar Games in Target Market**

* Pac Man
* Basement
* Cookie Clicker (And other clicker games**)**

**Distribution Method**

* Play Store
* App Store
* Free

**What Methods will be used to engage Audience**

* Social media sharing function
* Leaderboards

**Evidence of Market Support**

Pac Man is a well-known classic game that has experienced massive success over the past 38 years, and incremental games such as Cookie Clicker and aVenture Capitalist have also seen huge popularity among casual gamers in the last couple of years. I believe that a hybridisation of the two genres shows promise and would be enjoyable by a large amount of people.

**Reference Art**

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| https://upload.wikimedia.org/wikipedia/en/5/59/Pac-man.png | **Pacman Maze Layout** |
| دبلهم) يله بادا ايل  ف  ممن  لامما | **Nigel’s Sketch from Design Session** |
|  | **Sketch of the potential game layout** |

**Technical Feasibility**

Current Smart Phones would have no trouble running this sort of 2d game. The Arcade Cabinet build might take some effort however.

**Projected Completion Time**

TBA

REAIO is in Mid-August.