R078

GAME DESIGN DOCUMENT

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MA GAMES DEVELOPMENT (DESIGN)

1 CONTENTS

2 VERSION HISTORY

DATE	VERSION	CHANGES
15/03/2019	0.1	Template Skeleton, Overview
16/03/2019	0.2	Backstory, Plot, Interface
20/03/2019	0.3	Plot, System
22/04/2019	0.4	Gameplay, Art
28/04/2019	0.5	Images, Links, Gifs

3 AIMS & OBJECTIVES

3.1 AIMS
- Observational Game: Creating a game that provides minimal information to the player and letting them observe any content available in the game. The player has the freedom to explore the game as they want.
- Believable NPC's: NPC's that show feedback depending upon player's actions.
- Strengthen Skills: System Design and Narrative.

3.2 OBJECTIVES
- Delivering a Game Demo worth 10 minutes
- Designing different types of choices and modifiable levels, that change the course of story depending on players actions.
- Crafting dialogues.

4 OVERVIEW

- **Game Vision**
  - R078 is an adventure game, that consists of a story that one can progress through by solving small puzzles. These can be cracked down by observing NPC dialogues and interactable objects around.
  - Playing with the "Frustration" emotion of the player, by not giving them obvious answers.
- **Genre**
  - Adventure, Puzzle, Sci-Fi Simulation
- **Target Audience**
  - The target audience chosen for this game is set to 16+. This is because although the game is simple to play, there are some puzzles that could require a bit of thinking. The game also has a slight "creepy" touch to it, and hence, a slightly older audience would be better in terms of dealing with it.
- **Platform**
  - PC

- **Mood/Theme**
    - "Frustration" - The game provides minimal tutorials and lets players explore their environment at their pace. This may result in them losing the game more frequently or falling behind in time.
- **Look & Feel**
    - R078 is a 3D game with an isometric camera view.
- **Project Scope**
    - Number of Environments: The game plans to take place in one town, that consists of 6 enterable buildings. Hence, 6 interiors are to be created as well.
    - Number of NPC's: The game will have 4 major NPC's, and 10 non major NPC's.
    - Number of modifiable levels: This depend on the number of major NPC's in the game.

5 STORY

5.1 BACKSTORY

Hannah, a 30-year-old scientist was recently hired by a huge science firm, SIMULEXIA, to help in the research of an ongoing project about artificial simulation.

SIMULEXIA led artificial simulation, was a project about synthesizing an artificial world, with human consciousness. The company planned to test how behaviors were affected when certain situations arose. The company was led by Rustin, who was extremely professional, and did not do well with rejections.

A newly recruited Hannah wasn't told much about the details, since the project was not keeping up with ethical standards. Things were usually revealed to new comers when a trust bond was signed.

The trust bond was a unique contract where the recruits had to agree for their memory to be stored in the company as data, which they did not have access to after office hours. This contract was available to staff after a period of 2 years.

Hannah, who was a bit hesitant towards this bond initially, eventually agreed. She assumed the company couldn't be doing anything extremely wrong.

Six months later after the agreement, Hannah discovered that the humans living in the simulation weren't exactly artificial. Real humans were unwillingly brought into a "server room", which then transferred their consciousness into the artificial world. These beings were given their pre-designed back story, making it seem real to them, and blocking any real-world memories.

The company chose these test targets by stealing the data from the government database. If the targets were found to have unique characteristics, they were asked to volunteer. If they disagreed, they were taken unwillingly.

This did not settle well with Hannah. And this is where Hannah and Rustin had a disagreement, since Hannah was the head of the project. She made sure Rustin knew that he'd have to pay a huge price for playing with human lives.

Rustin wanted to kill Hannah. But due to his sadistic nature and his slight infatuation with Hannah, he

made sure she suffered for disagreeing with him. He decided to transfer her consciousness into the simulation and let her forever wander in there.

Hannah is now a part of the simulation, who is an 18-year-old orphan.

5.2 PLOT

The plot of the game is about Hannah's journey back to the real world. The game is laid out over a span of **10 simulation days**. She landed in the simulation with an **artefact** that holds great importance.

Hannah wakes up in her house, with her pre-designed story embedded in her mind. She is an 18-year-old girl, who works a part time job at a store. She has no memory of her previous life, nor knows that she is in a simulation. Rustin, who controls the simulation from the real world, speaks to her throughout her journey in the simulation.

Hannah carries out her daily jobs by going to school in the mornings and later for the part time job. In the beginning of the simulation, she lives her life like an ordinary citizen. As the day goes by, she comes across some incidents that turn on her curiosity. These incidents are considered "glitches" and are usually corrected by resetting the subject that faces it by Rustin.

The first incident she comes across is near a coffee shop, where she has the opportunity to avoid a car colliding with a box. The artefact that she wears in the form of an accessory, is what helps her pause the simulation. Although done unknowingly, consequences follow it, which eventually leads her to meet Sophie, who becomes her good friend, and sticks with her during the evenings.

The second major incident she comes across is a person yelling outside her school. This person is the First Test Subject, Henry. She finds her artefact react to it, and investigates about Henry later. After finding some clues and patterns, she reaches Henry's house, only to realize that he is in danger. She finds a way to save him by using the artefact and pausing the simulation. She breaks his code by speaking of the pattern later. This leads to Henry breaking out of the simulation's algorithm, and remembering his previous life. He explains everything to Hannah, about how he was unwillingly put into the simulation. But Hannah has difficulty making sense of it, since the concept of simulation and real world doesn't mean much to her at this point.

Henry's conversation leads her to another important character, named Margaret. She spots Margaret at a shop where her artefact starts glowing. She later encounters the same systematic issue, where she needs to save her as well, which she finds a bit too coincidental. After saving Margaret, she reveals that she was involved in putting Henry in the simulation, which she did it under Rustin, her boss. Upon a disagreement, Rustin put Margaret too in the simulation. Margaret reminds Hannah that at that time in the real world, Hannah was merely a recruit. She speaks about the trust bond and speaks of its details. She also tells Hannah about her work partner, Arthur, who she saw a few days ago in the simulation as well.
Hannah now starts believing that she is in a fake world and was somehow connected with the company.

As she nears the last character, she comes across glitches and glimpses of a person, who she feels very drawn to. The simulation pauses, and the character, who is her boyfriend in the real world, speaks out her real name. Hannah tries to save him, but no matter what she does, she fails.

The depression of losing this stranger, strengthens her determination to meet Arthur, and figure out the truth behind the simulation. She finally meets Arthur, who reveals that he was put in this simulation by Hannah. Apparently, both Hannah and Arthur figured out the truth and wanted to shut down Simulexia for good. They decided that one of them would have to go in the simulation to shut it down from the server building connecting both the worlds. But Arthur felt betrayed when Hannah couldn't pull him out of the program, and hence, is much harder to extract information out of.

Arthur eventually tells her everything after Hannah proves her loyalty and explains her the process to stop the simulation.

Hannah starts working on finding her way to the Server building, but is interrupted by the same instance, where the stranger now reveals that he is John, her boyfriend. But before Hannah can say anything, the simulation tries to kill John again, this time giving her the option to save him.

She eventually makes her way to the server room, and initiates a contact with Rustin herself, for the first time. Depending upon the choices she made through out the days, the game has three possible endings. The worse ending being she forever loops in the simulation, and the best being her getting her revenge.

5.3 CHARACTERS
In the order of the occurrence in the game.

- Hannah, The main character
- Sophie, Friend
- Rustin, Boss
- Henry, First Test Subject
- Margaret, Researcher 1
- Arthur, Researcher 2
- John, Boyfriend

6 SYSTEM

6.1 GAMEPLAY

6.1.1 Overview
The gameplay includes the player exploring their town, speaking around with people, living a normal life without gathering too much attention and doing their quests, if required, on time. The game is heavily based on the decisions the player takes throughout their journey. This will also define the type of ending they receive.

6.1.2 NPC Behavior
This is a type of behavior that will show a visual response to any negative decisions taken by the player.

- Quest giving NPC's get disabled
    - This happens when a player has taken a decision that reduces Secrecy meter. It's an immediate response and only lasts few seconds.

- NPC's run away from the player
  - This happens when a player has taken a decision that reduces Secrecy meter. It's an immediate response and only lasts few seconds.
  - In the images below, the black cube is the NPC, and red is the player. In this case, when the player goes near the NPC, they run away.
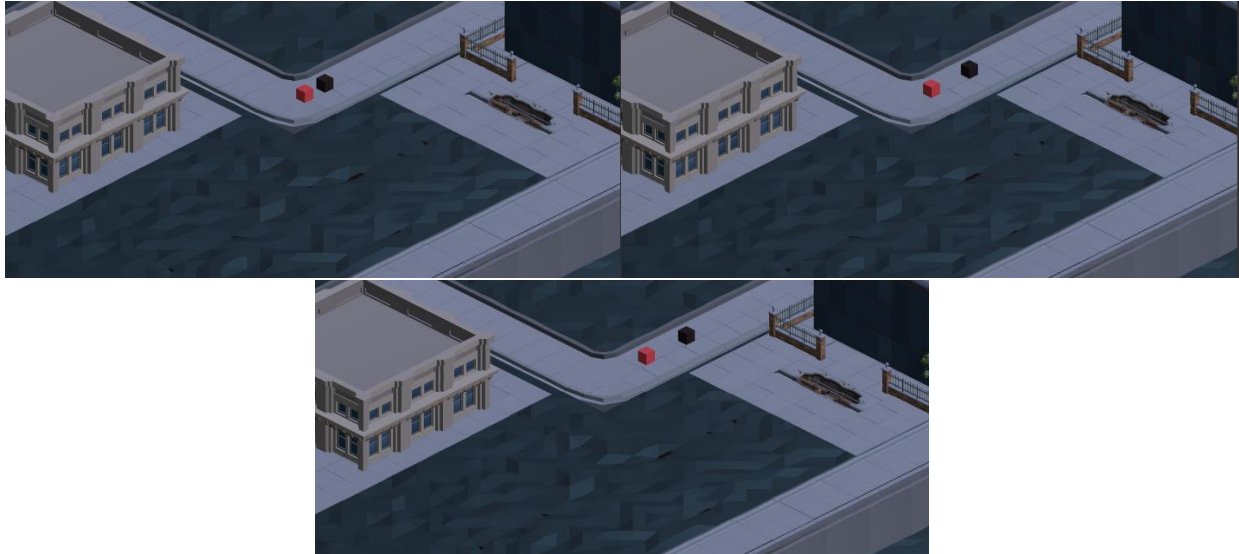

Figure 1: Repulse Behaviour

- NPC stalks the player
  - If secrecy meter is below a certain value in the game, some special NPC's go around following the player occasionally.
  - If the player is stalked for more than 30 minutes, player is sent to their home automatically, which ends up wasting their time in the game.
  - Player loses the stalking NPC's by increasing their secrecy meter in under 30 minutes.
  - In the images below, the black cube is the NPC, and red is the player. In this case, NPC is stalking the player.
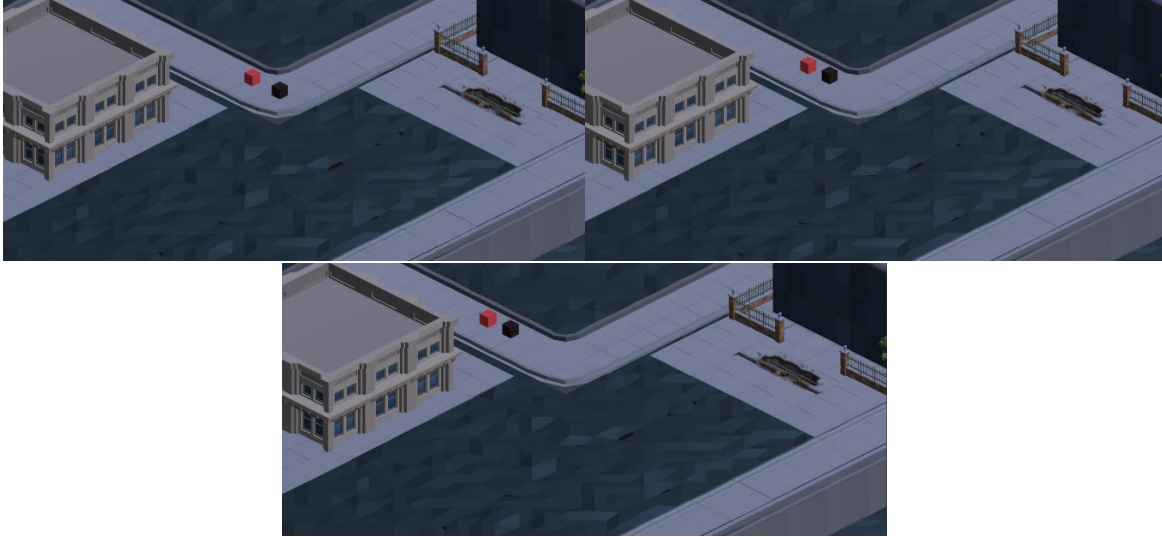
Figure 2: Stalk Behavior

- NPC interrogates the player
  - If secrecy meter is below a certain value in the game, some special NPC's come in the way of player and interrogate them, hence wasting their time.
  - In the images below, the black cube is the NPC, and red is the player. In this case, the NPC is catching up with the player and is about to interrogate them.
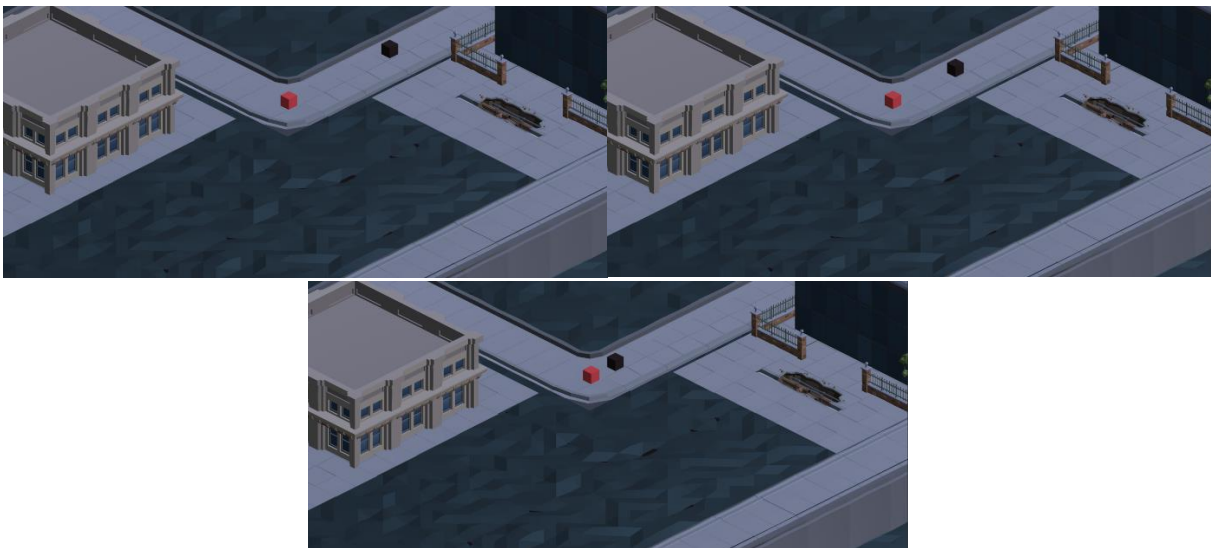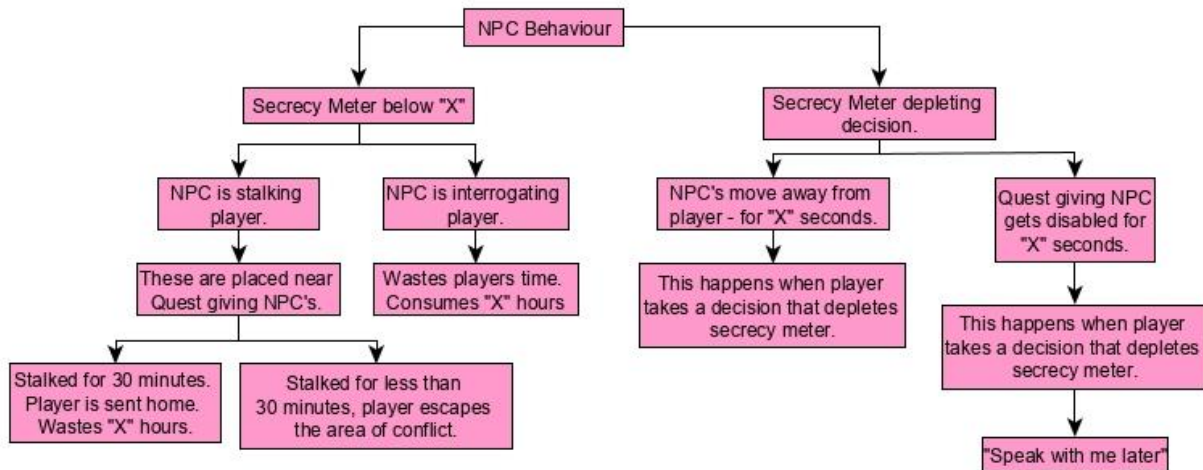

Figure 3:Interrogation Behavior

Figure 4: NPC Behavior Chart

6.2   MISSION STRUCTURE/ QUEST TYPES

The quests can be either normal, or time based. The time-based quests are required to be done during a particular time of the day. Else they cannot be completed.

6.2.1   Fetch

- o   These quests are given by NPC's or through discovered through exploration.
- o   When given, they require the player to go a certain location and collect an item.
- o   This collected item needs to be delivered back to either the quest giver NPC or someone else.

6.2.2   Protect

- o   This requires player to protect another NPC before the simulation tries to kill them.
- o   These missions cannot be failed
- o   The level modification mechanic comes into play here. (Refer Here)

6.2.3   Interact

- o   These quests require an information extraction of sorts. Player needs to speak with an NPC in a manner which will yield important information.
- o   Once information is revealed, this can direct a player to another quest, or return them to the original quest giver.
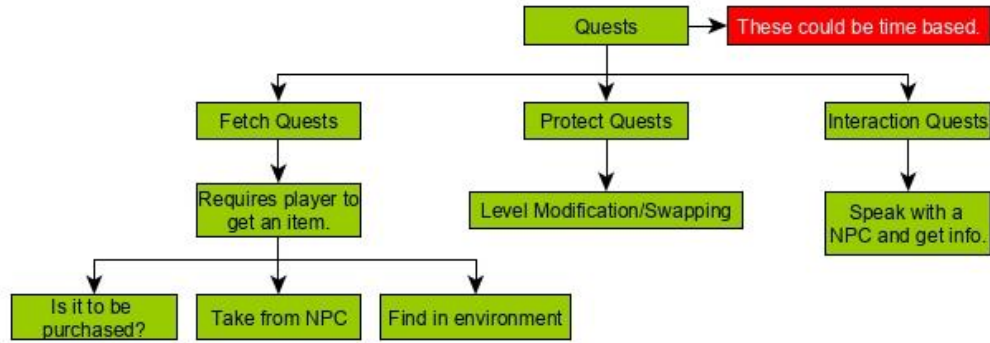
Figure 5: Quest Chart

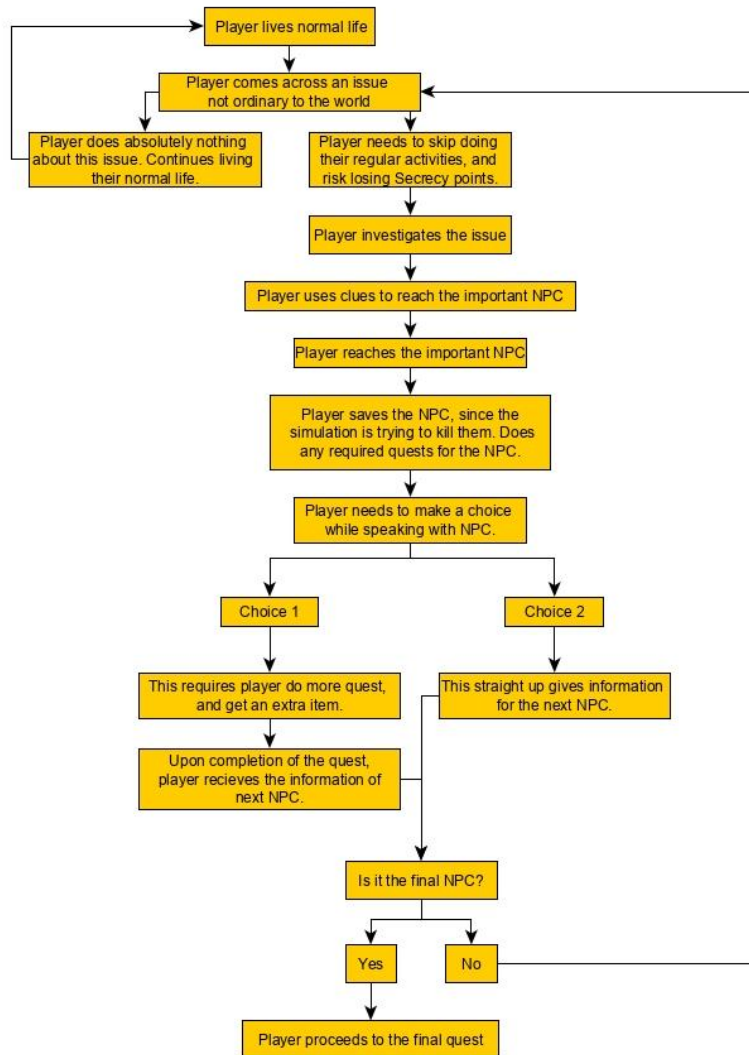## 6.3 PROGRESSION / EVENT FLOW/ GAME FLOW

Figure 6: Quest Flow

6.4 MECHANIC

- Interaction:
  - o Objects – Player can interact with objects by tapping on them. The important objects in the game are usually always highlighted.
  - o NPC's – Player interacts with other NPC'S in a similar manner
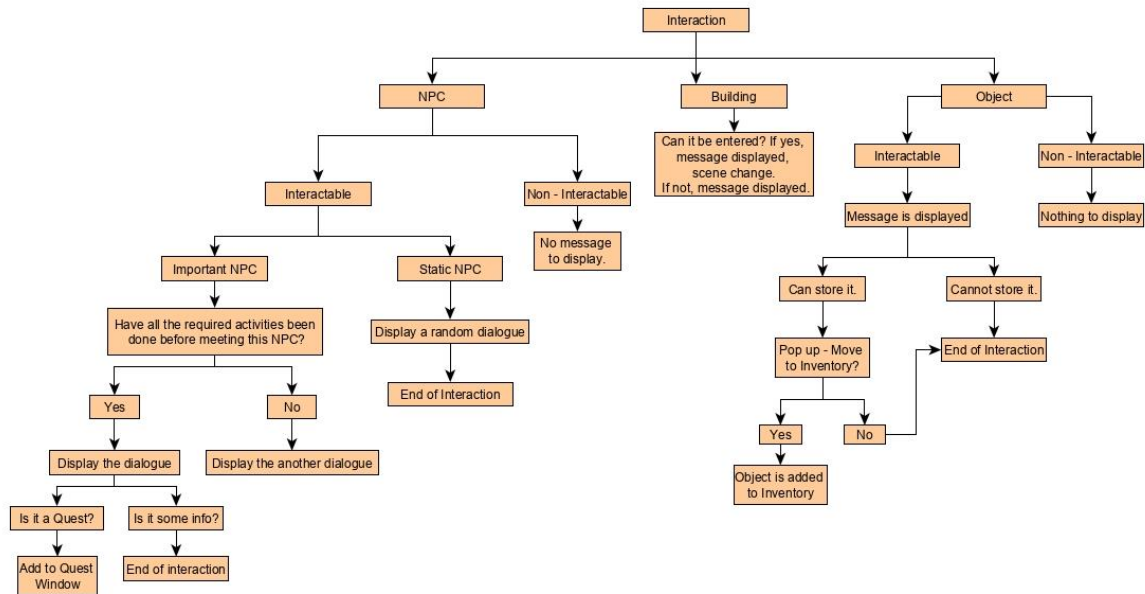

Figure 7: Interaction

- Object Swap:
  - o Player can modify the paused simulation outcomes by switching the placement of objects.
  - o They do this by nearing the object to unlock it and swap it with any other unlocked space.
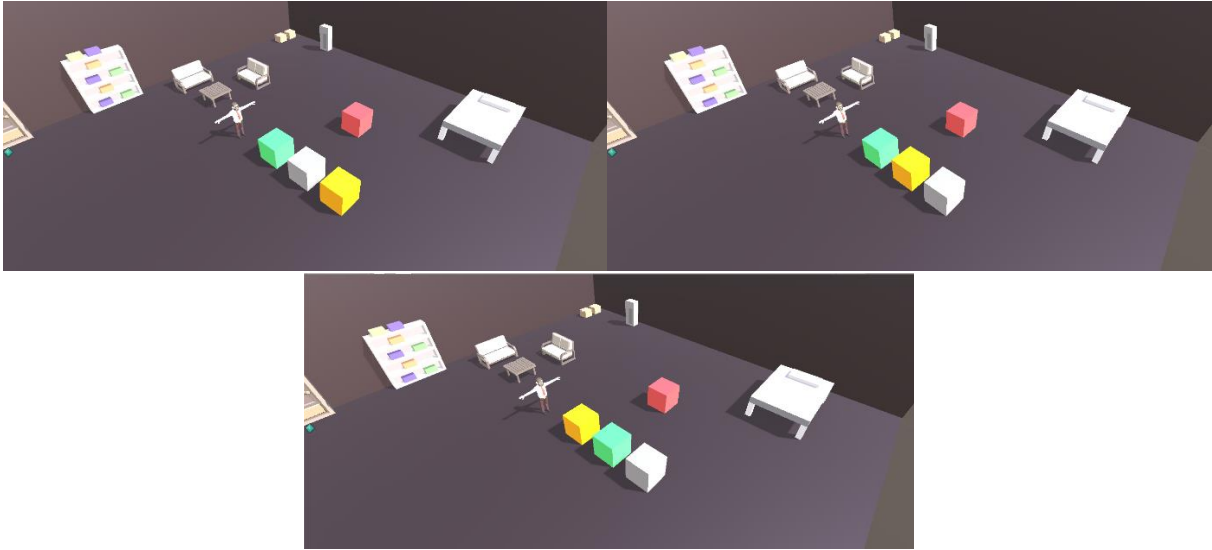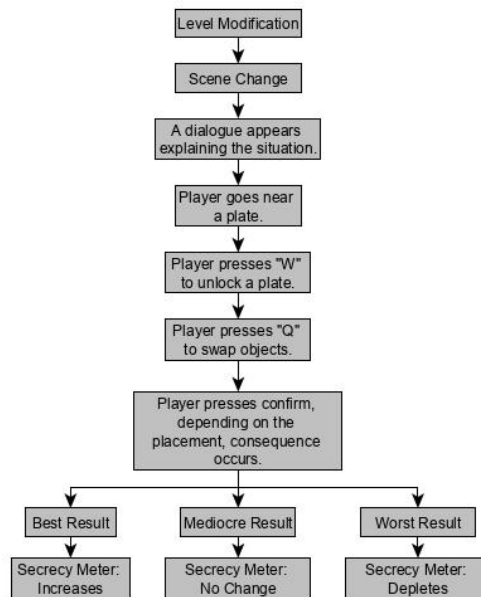
Figure 8: Object Swapping

Figure 9: Object Swapping

- Time
  - A 24-hour clock displayed on the screen. This is sped up and runs for ten days.
- Secrecy Meter
  - A ticket meter which increases or decreases depending upon the actions taken by the player.
- Money
  - Player earns money by doing the part time job quest.
  - Player use the earned money to purchase items around the town for either quests or leisure.
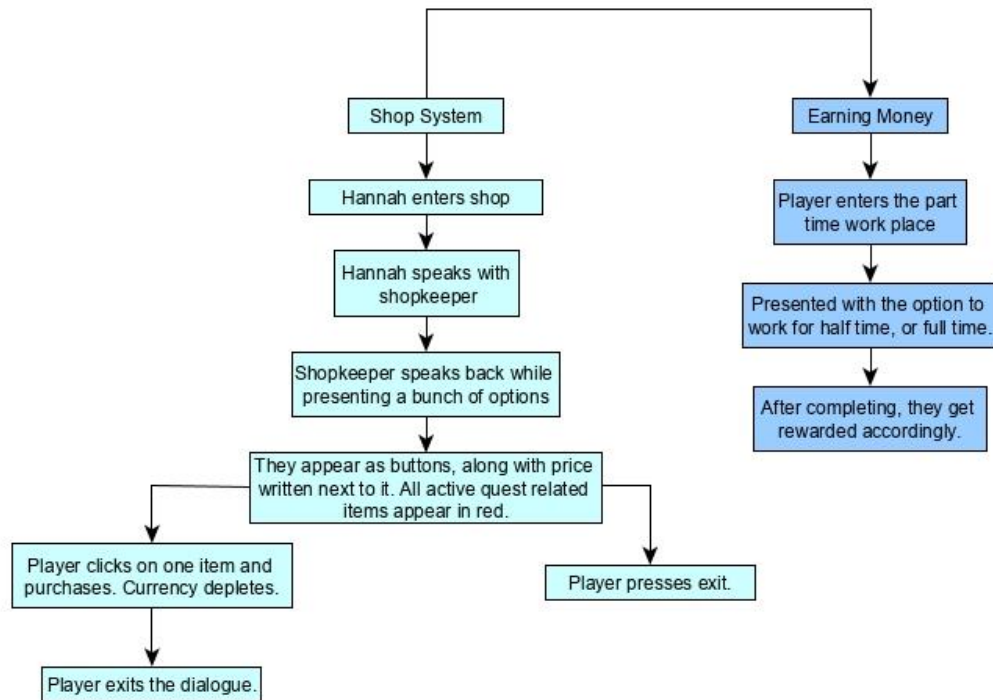
Figure 10: Money System

- Inventory System
    - Player can store up to three items in their inventory.

7 LEVEL DESIGN

7.1 THE TOWN

The rough block out of the town is laid on in a way, that for the initial few quests, player has all the necessary buildings available near their location. Some locations are purposely kept restricted until there is a progression in the story.

Figure 11: Town Layout

7.2 OBJECT SWAP

The object swap mechanic consists of heavy level designing and consequence planning. Since the results of the placement of objects matter in the scenario, the player will require some puzzle solving skills in this case.

The first scenario in which this mechanic comes into play, is when Hannah meets Henry, and the simulation tries to kill this person. Hannah needs to swap the placement of these objects.

7.2.1 SCENARIO

Henry is standing next to a fuse box that is about to blow up. The item placed next to it will define extent of damage.

- Gas cylinder – If placed next to fuse box, Henry will die.
- Pile of clothes – If placed next to fuse box, Henry will be injured.
- Cardboard box – If placed next to fuse box, no damage is caused.

8 LEARNING & DIFFICULTY CURVE

The game is set over a span of 10 days, hence giving player enough time to learn and explore their environment. Daily quests always remain the same, hence player will eventually get used to the system and timings. This will help them plan out their strategies of exploration.

The game doesn't exactly get difficult, since it's a linear story. It does however start giving out more quests to the player as they progress in the story, hence requiring more time investment.

To get the player used to the environment, Day 1 is kept constricted to carrying out quests and providing much less freedom to the player in terms of exploring the town.

9 INTERFACE

The game's interface is relatively simple.

- Controls:
    - Movement: Left Mouse Button
    - Interact: Left Mouse Button
    - Level Modification
        - Locking/Unlocking a slot: W
        - Swapping: Q
    - Inventory - I
- Main Menu:
    - The interactive buttons available for the demo are:
        - New Game
        - Continue
        - Audio
- In-Game:
    - Pause Menu
        - Audio
        - Restore to Previous Check Point
        - Back to Main Menu

10 SOUND DIRECTION

The sound required for the game needs to have a sci-fi touch to it. An asset I found on the Unity Asset store, which is free of cost, fit well for the background music. The asset helps procedurally generate an ambience.
Link: https://assetstore.unity.com/packages/audio/ambient/sci-fi/procedural-ambience-4414

11 GAME ART

The art style for this game aims to create a scientific, but also a local town atmosphere. For this, I have purchased the "Polygon: City Pack" from the Unity Asset Store.
Link: https://assetstore.unity.com/packages/3d/environments/urban/polygon-city-pack-95214

Figure 12: Demo scene of assets purchased

12 INSPIRATIONS & MARKET ANALYSIS

My inspiration for this game comes from the various theories of human existence that I have read.

Level modification is inspired mainly by a series called "Flash", and a certain episode named "Cause & XS". Here the main character goes in loops to save the people, by going back in time. But in the case of the game, the player pauses the simulation instead.