

SPACE DOC

GAME DESIGN DOCUMENT

TEAM OAK-AYY



Version Control

| Version | Author | Changes Made |
|---------|--------------------------------|---|
| 0.1 | Akash Oak | Document created Section 1 - Overview, Section 4 - User Interface written. |
| 0.2 | Iman Syed | Section 2 (A) - Gameplay added. |
| 0.3 | Anuj Patwari | Section 3 – Story and Characters added. |
| 0.4 | Akash Oak | Section 4 – User Interface – mock-ups added. |
| 0.5 | Anuj Patwari | Section 6 – Art added |
| 0.6 | Akash Oak | Section 6 – Art edited – UI added. |
| 0.7 | Preyas Yande, Joshua Travas | Section 2 (B) added, Section – 5 Sound added |
| 1.0 | Akash Oak | Document Formatted, Background Template added |

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Section I – Overview

1.1. ID Card

Name – Space Doc

Genre – Puzzle

Platform – Android

Target Audience – 6 – 10 years old children

1.2. High Concept

Jump in the spaceship and let the planets help you to your goal, because they need your help too. Space Doc is a puzzle game where the player must guide his spaceship to the sick planets and help them heal.

1.3. Gameplay in a Nutshell

Space Doc is a physics-based puzzle game where the players must guide the Space Doc's ship to the sick planets and heal them. Getting the Doc's ship to the planet and healing them are two different activities which the player will do in the game.

1.4. Genre

Space Doc can be categorized as a puzzle game as the gameplay revolves around problem solving and strategical thinking. The complexity of the puzzles in scenarios will be comfortable for kids to play in.

1.5. Target Audience

The project is a student project made for the semester end and is entitled 'Game for Kids'. As the name suggests, the game is meant to be played by children from the age of 6 -10 years old. The parents of the children can also enjoy Space Doc. Space Doc can also be enjoyed by enthusiasts who enjoy puzzles and art with vibrant colors.

Space Doc will have no physical violence, bloodshed, gore or adult material whatsoever.

1.6. Feature Set

4 different worlds

Variety of puzzles in different worlds

Physics based gameplay

Child – friendly characters

1.7. Benchmarking

Few games which follow the same theme or similar elements of gameplay already exist in the android market. Space Doc aims to improve upon the mechanics as well as the charm these games offer, as well as have more replay value than its competitors.

Angry Birds Space



Overview

Angry Birds Space was a game released for Android and PC in 2012, developed by Rovio Entertainment and Nordic Games. The game mixed the classic Angry Birds gameplay with a unique mechanic of gravitational pull field which makes the launched bird get attracted towards the planet. The challenge in the game is figuring out the way gravity works.

Cut the Rope



Overview

Cut the Rope was a game released for multiple mobile platforms in 2010, developed by ZeptoLab. The game is purely based on physics-based puzzles where the player must get the candy to the main character, Om Nom. The game has seen multiple sequels where introduction of new mechanics has kept the title fresh. The game is praised for its ingenious level design and creative puzzles.

1.8. Educational Value

Space Doc, although targeted towards the children of 6 – 10 years of age, still must appeal to the parents who will be responsible for giving access to the kids. The game teaches the kids various things out of which some are, but not limited to –

Physics

One of the sequences includes traveling through space to reach the other planets. During these sequences the planets that help the child get through to the end will either attract or repel the space ship and make its trajectory different. Space Doc will roughly mirror the way physics work in real life in the game.

Environmental Issues

Issues such as high pollution, planet temperature rising or falling as well as planets being hit by meteorites are present in the game. Although some of the situations are purely fictional, some are not and replicate what can happen if we overuse the natural resources mother nature has given us. Space Doc also aims to learn what problems the earth is facing and how to counter them.

Memory Test

Space Doc has one of the puzzles based around memory test and how well children can remember patterns, colors and shapes. The puzzle is meant to be an exercise for the memory and help children remember things more vividly through visualization.

Problem Solving

Space Doc includes one more puzzle where the player must put back the pieces of a planet back together. The puzzle is supposed to make the kids understand how to understand shapes and the way they fit together. This will enable the kids to unconsciously learn methodical thinking and problem solving.

1.9. Project Scope

A team of 8 people is contributing towards the completion of this project. The team contains of 5 game designers and 3 artists, which are further given roles. These roles are as follows –

| Person | Role |
|--------------------------|----------------------------------|
| Anuj Patwari | Project Manager, Main Programmer |
| Akash Oak | UI/UX Designer, Game Designer |
| Amolesh Mahato | Environment Artist |
| Balaji Ganesh Kasibhatla | Character Artist |
| Iman Syed | Assistant Programmer |
| Joshua Travas | Sound Designer, Level Designer |
| Prateek Belsare | Environment Artist |
| Preyas Yande | Level Designer, Game Designer |

The work allotment and schedule are being kept by the project manager on a management website. Project link and the progress of the work can be found on the following web address–

spacedoc.bitrix24.com

The game has big scope as the development team is big and the time to develop the game is 5–6 months. The game will include the following –

1.9.1 Planets

The travel sequence in the game is the chunk of the gameplay that needs to be implemented. To add variety and difficulty in these as well as must have a learning curve is important to give the player a sense of progression. Hence, the sequences have a variety of planets that have various effect on the player's ship. Currently, the GPI count for these different planets is 7, which will be detailed later in the document. Addition to that would be the sick planets which will have personalities and expressions. There will be a total of 4 sick planets in the game.

1.9.2 Levels

Level based progression seemed most appropriate for the game as it'll be easier to plot content distribution and creating a difficulty curve. The game will contain 4 different worlds with 5 levels each. The change in world will indicate a climb in the difficulty, while the individual levels in the game itself will have varying difficulty.

1.9.3 Environments

The whole game takes place in space hence the general setting and planets in the environment will have variations based on the world. Each different world will have diverse backgrounds and aesthetics that will make every world feel different.

1.9.4 Puzzles

After every travel sequence, the gameplay will shift to healing the planets. Healing the planets will be puzzles that will change according to what problem the planet is facing. The number of puzzles is dependent on the number of the sick planet we have, which is 4.

Section II (A) – Gameplay

2.1. Objectives

There are two primary objectives in the game:

1. Safely bring the Space Doc to the sick planets by using the help of other celestial bodies.
2. Once on the sick planet, solve puzzles to help cure it.

2.2. Core Mechanics

2.2.1. Travelling Sequence

The travelling sequence involves the Space Doc traversing through outer space, using properties of various planets to propel himself further on to his goal.

The player has no direct control over the Space Doc's spaceship, and must use mechanics such as pushing, pulling and launching the craft in order to progress across levels.

- Movement: The spacecraft moves in one direction, and will not stop or deviate unless another force acts upon it.
- Activating Planets: Special planets can be activated by tapping on them. These planets have a range around them and, when activated, will pull or push the spaceship while it is within their range. The types of planets and their functions will be further described in the sections to come.
- Avoiding Obstacles: There are many obstacles the player must avoid, such as moons, comets, asteroids and the planets themselves. Colliding with these will result in a reset of the level.

2.2.2. Puzzle Sequence

Upon reaching an ailing planet, a simple puzzle/minigame sequence begins. After completing this level, the player unlocks moving on to the next sick planet. This part of the game is in augmented reality. The puzzle levels for each Planet are as follows:

- Broken Planet: Fix the planet by placing all the broken planet's parts in the corresponding spots. The parts are collected in the preceding levels.
- Polluted Planet: Tap on the factories as they start to emit smoke to close them with a band aid, which are collected in the preceding levels. If the factories stop releasing smoke, they can no longer be tapped. The planet is cured once all its factories are covered with band aids.
- Hot Planet: A sequence of colours will play on the planet's surface. The player must tap the coloured clouds collected in the previous levels in the same order, making them rain

down onto the planet and cooling it. Once the sequence is correctly repeated thrice, the planet cools down sufficiently and is cured.

- Cold Planet: Torches collected in the previous levels are automatically placed around the planet. The player must find out the correct sequence through trial and error and light all the torches up by tapping them. The planet is sufficiently warmed up once all the torches are lit.

2.3. Types of Planets

- Pull Planet: When activated, this planet pulls the Space Doc's craft towards itself.
- Push Planet: When activated, this planet pushes the Space Doc's craft away from itself.
- Volcano Launcher: When the Space Doc's craft reaches the end of the volcano on this planet, the planet begins to rotate around its z-axis. The player can then activate the planet to launch the spaceship outward, away from the planet.
- Pipe Planet: Acts as a one-way tunnel, with an entrance and an exit. The spacecraft goes through the entrance and launches out of the exit after a short interval.
- Bouncy Planet: The spaceship ricochets off these planets and does not take damage.

2.4. Structure and Progression

The game is divided into Planets, which are further segregated into levels. Each level consists of one or more sequences of planets which the player utilises to escort the Space Doc to the level's goal. Currently there are four planets with five levels each. After completing all the levels, the player unlocks the Planet's puzzle. Completing the puzzle allows the player to move on to the next Planet. Each subsequent Planet has an increase in the overall difficulty of its levels.

Each Planet introduces at least one new mechanic in the form of obstacles or planets. The Space Doc and his spaceship remain constant.

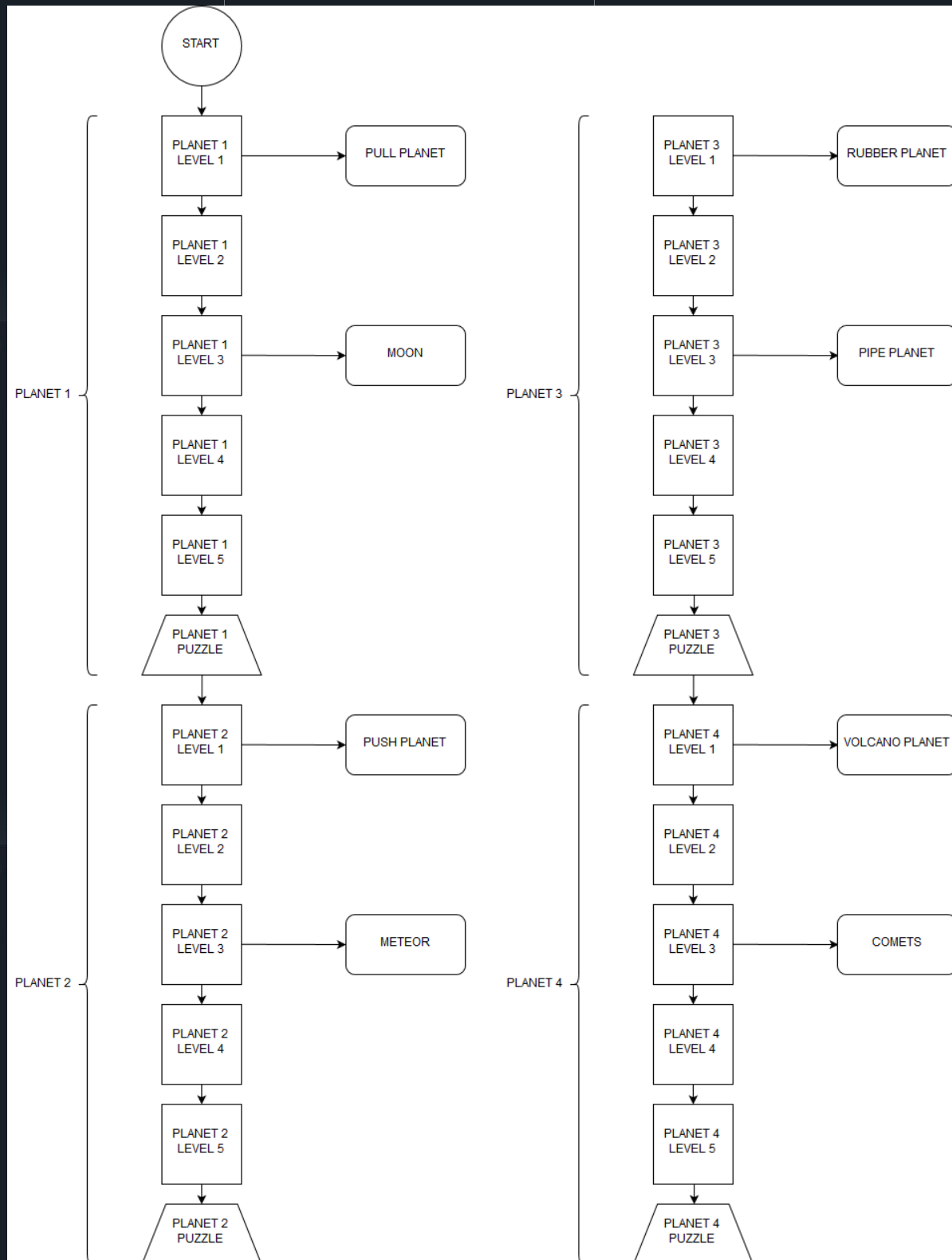
Planet 1: Pull Planet and Moons

Planet 2: Push Planet and Meteors

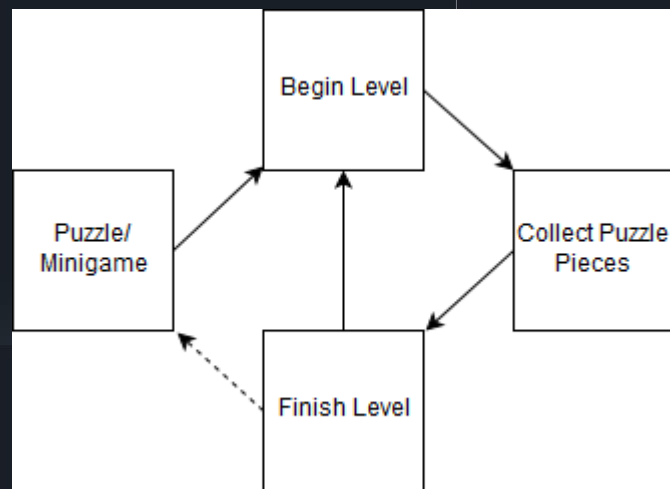
Planet 3: Pipe Planet and Rubber Planet

Planet 4: Volcano Planet and Comets

2.5. Game Flow



2.6. Game Loop



2.7. Controls

The controls include tapping and dragging.

Travel sequence: Tap on planets to activate them.

Puzzle sequence: Tap and drag puzzle pieces to their slots. Tap the various puzzle elements to activate them.

Section II (B) – Level Design

2.9. Principles

SpaceDoc will incorporate the Kishōtenketsu philosophy in its Level Design;

Kishōtenketsu

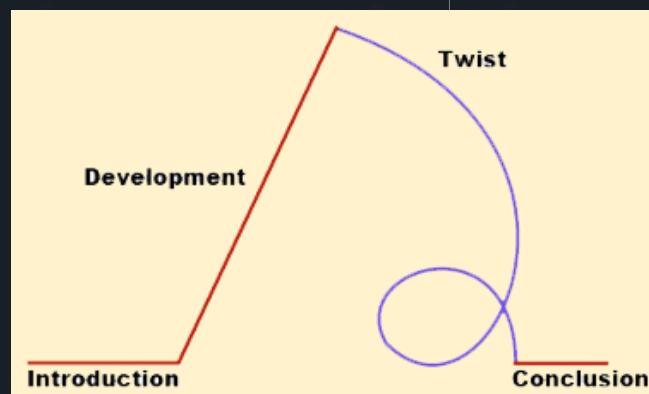
Kishōtenketsu is a 4-part structure and development of classic Chinese, Japanese and Korean narratives, it is used in 4-line Chinese poems and 4-panel Japanese comics, in each of these stories the 4 parts are –

ki – Introduction

shō – Development

ten – Twist

ketsu – Conclusion



Adaptation

In Level Design, levels are 4-part self-contained showcases, where a mechanic can be successfully taught, developed, twisted and then concluded in a short time;

Introduction (ki) – Each level will start off with the mechanic being introduced in a safe environment, where the Player can learn the mechanic and mess around with it.

Development (shō) – After the mechanic is introduced, it is established further and developed by adding challenges and the safety-net being removed.

Twist (ten) – Towards the end of the level, the mechanic will be turned around on its head with a twist, by introducing enemies or pairing the newly learned mechanic with a mechanic taught in the previous levels, to challenge the Player or to offer a fresh perspective.

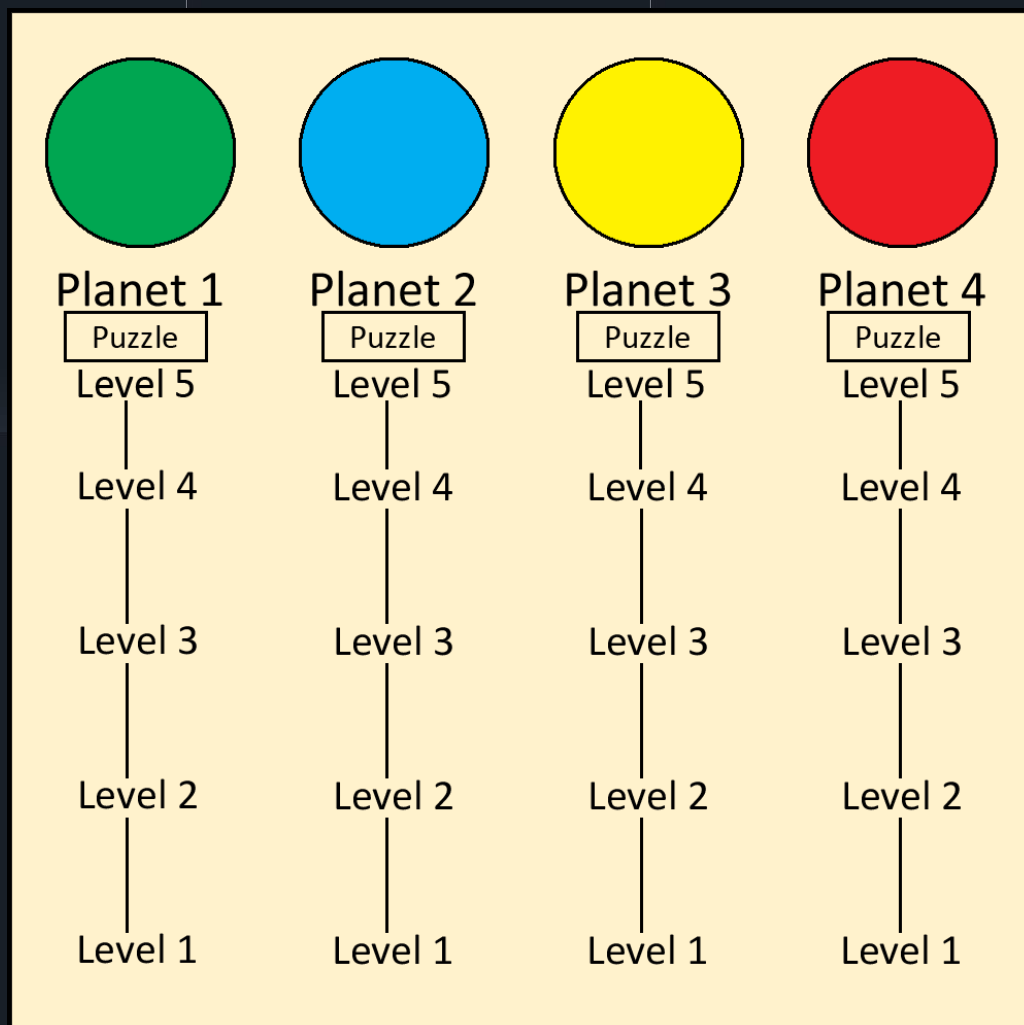
Conclusion (ketsu) – Finally, the conclusion where each level will give the Player a last chance to show-off what they have learned and reach the end of the level.

Justification

Koichi Hayashida over a course of a few Mario games, adapted and developed the Kishōtenketsu philosophy for Level Design. This is how Nintendo manages to fit multiple mechanics in a game without making it bloated or full of tutorials. Tutorials often break the flow of the game, teaching the mechanics through action and gameplay can be fruitful. If ever mechanics are re-introduced in further levels, we can be confident that the Player knows them as they encountered and learned them in earlier levels, this will offer for interesting gameplay. Mario games are also popular among kids; hence this philosophy of Level Design works best for a game targeted towards kids.

2.10. Number of Levels

SpaceDoc will have 4 Planets, and every planet will have 5 levels leading up to it with a puzzle in the end; The 4 planets, each will have their own theme, depending on the illness it suffers, and the levels leading up to this planet will follow the same theme, clearing the last level of a



Planet, the Player will be offered a puzzle to solve and solving this puzzle, will fix/cure the planet. All levels in a planet will often have a single concept and have a narrative structure.

2.11. Flow & Difficulty

Flow

Planet 1 – The levels in Planet 1 will each introduce a single mechanic and the mechanic will be taught using Kishōtenketsu. By the end of Planet 1, the Player will have learned 4 unique mechanics.

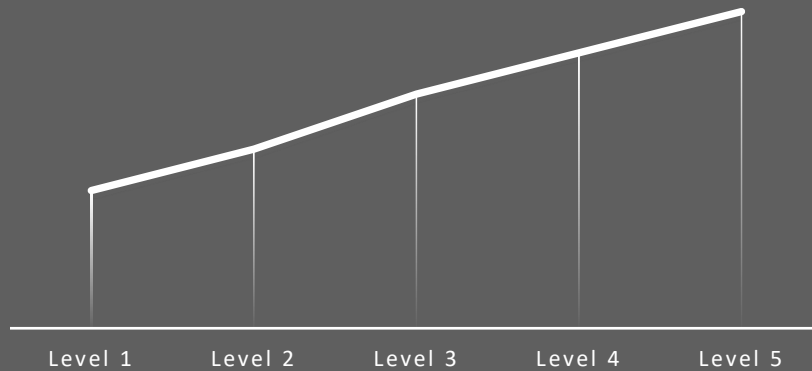
Planet 2 – The mechanics taught in the levels of Planet 1, will be reused in the levels of Planet 2 in pairing to offer engaging gameplay using the mechanics the Player has already learned, allowing them to master these mechanics.

Planet 3 – In the levels of Planet 3, two new mechanics will be introduced in the first 2 levels, and will be taught using Kishōtenketsu. In Level 3, 4 & 5 of Planet 3, these new mechanics will be used in pairing to allow the Player to master them.

Planet 4 – The levels in Planet 4 will use all the mechanics that have been taught and mastered by the Player, these levels will be longer and more difficult than the previous Planets. However, all mechanics won't be used in every level, each level will have combination of few of the mechanics introduced earlier.

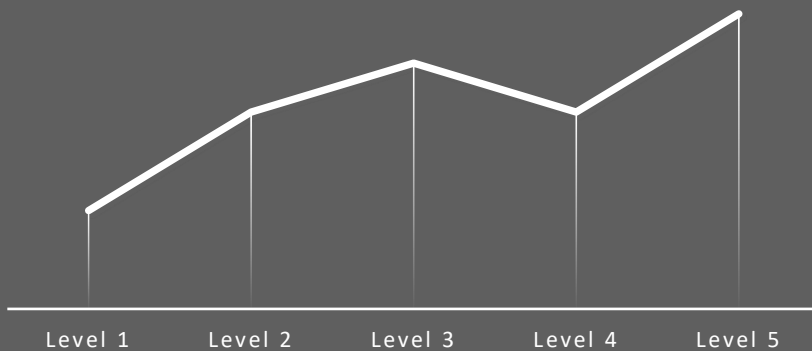
Difficulty

PLANET 1 - DIFFICULTY CURVE



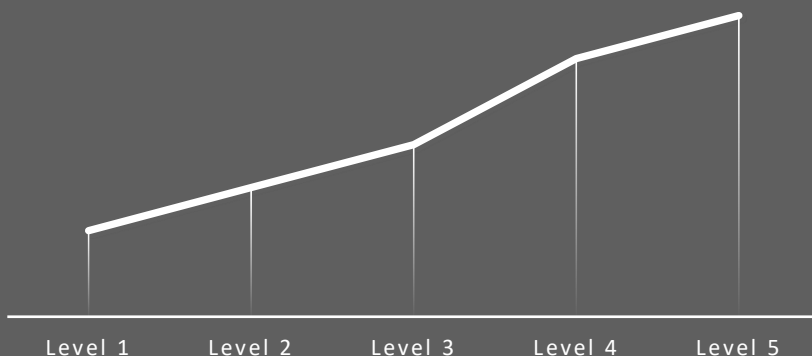
Planet 1 – This planet will be fairly simple as its main intention is to teach the Player the mechanics of the game.

PLANET 2 - DIFFICULTY CURVE

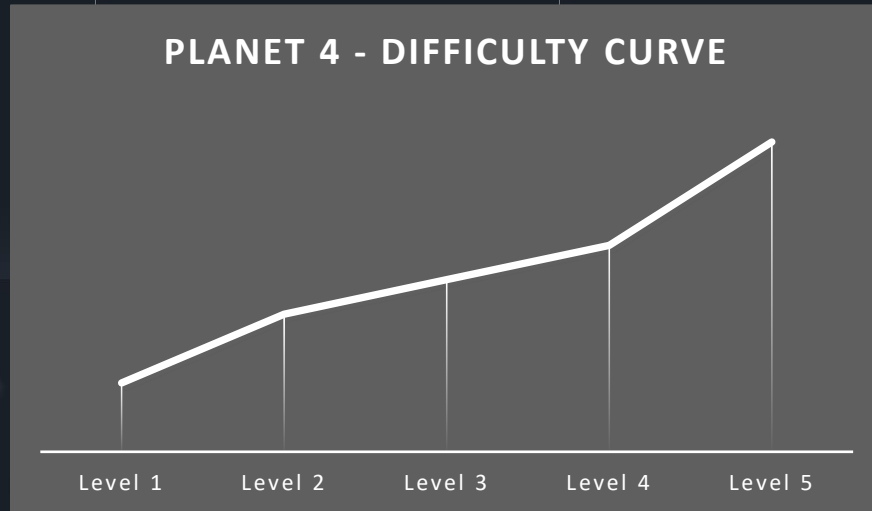


Planet 2 – This planet will be fairly more challenging than Planet 1, where the Player will need to use all that they have learned in Planet 1 and master the mechanics.

PLANET 3 - DIFFICULTY CURVE

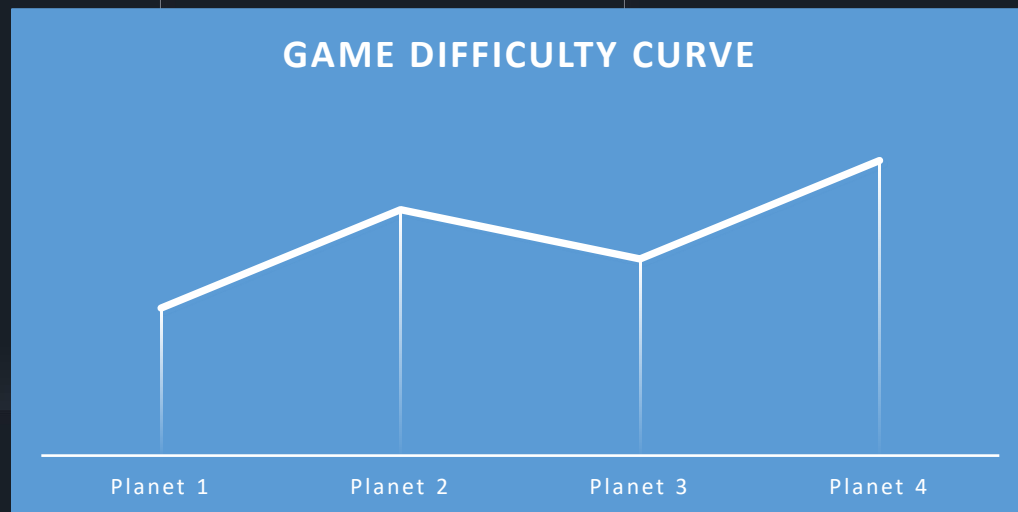


Planet 3 – This planet will act as a rest period before Planet 4 and also teach the Player a couple more mechanics and allow them to master them.



Planet 4 – This will be the last world in the game where the Player must show their skills and use everything that they have learned and mastered so far. Planet 4 will have the most difficult levels in the game.

Overall Game Difficulty Curve



2.12. Puzzle Design

In the final level of each Planet, the Player will have to solve a puzzle, successfully solving this puzzle will cure the Planet of its illness and grant the Player access to the next Planet. Each Planet will have its unique puzzle, since there are 4 Planets, following are the 4 puzzles;

- Whack-a-mole: In this puzzle, the Planet will have holes in it and objects will pop out of these holes and will stay out for a few seconds, the Player must tap on these objects when they pop out. The Player must hit enough objects before the time runs out to be successful and to move on to the next level.
- Jigsaw Planet: In this, the Planet will be broken into multiple pieces and the Player must tap and place these pieces together so that they fit and form the Planet, much like a jigsaw puzzle.
- Torches: In this, the Planet is cold and hence needs to be warmed up, for this the Player must place torches at the appropriate locations on the Planet to spread the warmth all over the Planet. The torches each will have an area they cover and the Player must place them appropriately by tapping and dragging the torches.
- Make it Rain: In this, the Planet is too hot and therefore, needs to be cooled down, for this the Player must gather the clouds, collect water and then spray the water on the hottest parts of the Planet. The Player must tap and move the clouds over water bodies, hold to fill up the clouds with water, move them over the hot spots by dragging and releasing to make it rain.

Section III – Story and Character

3.1. Backstory

Far-far away, in the distant Galaxy of Achelois, all the planets lived very happily with each other. Among them lived a Space Doctor, a very kind and selfless doctor. He would help anyone in need without even being asked for help.

One day, disaster struck. One of the planets was hit by a shower of meteorites. It was badly injured and needed help as soon as possible. To its luck, the Space Doctor was watching the incident on his Alert Device and immediately decided to leave to help the planet. The Space Doc quickly goes to his spaceship and takes off to help the "Broken Planet".

On the way to the Broken Planet, the Space Doc sees pieces of the Broken Planet floating around in space. He collects them and goes to the Broken Planet and heals it from its injuries. After healing the Broken Planet, it tells him that one of its friends is suffering from overheating and needs to be attended to as soon as possible. The Space Doctor immediately sets out to help the "Heated Planet".

Upon helping the Heated Planet cool down, on his way back to his home planet, the Space Doc heard a suspicious sound at a little distance. It sounded like someone was sick. He decided to go and investigate the matter. After travelling for a while, the Space Doc found a planet that was suffering from extreme cold. He diagnosed that the torches from the planet were missing and needed to be reattached. So, the Space Doc sets out to collect the required torches and gets them back to the "Cold Planet" and places them in the required order and helps it get rid of its cold.

After helping the Cold Planet, the Space Doc once again sets course for his home planet. On the way, he hears someone calling for him. It was "Green Planet". The Space Doc went to the Green Planet and asked it what the matter was. The Green Planet told him that one of its friends, not very far away, is emitting a lot of smoke and is unable to control it and needs help in controlling the smoke that it is emitting and requested him to go help it. To the Space Doc's luck, the "Pollution Planet" wasn't very far away from his home planet.

Upon reaching the Pollution Planet, the Space Doc immediately understood the problem was that the factories on it were malfunctioning and giving out smoke. Upon attending to the Pollution Planet, the Space Doc could finally return home after helping so many Planets on his course.

3.2 Character Descriptions

Space Doc:

The Space Doc is a very kind and helpful character. He is always ready to help the ones in need and is very selfless. He goes out of his way to help anyone if needed. He is also extremely knowledgeable in his field and is always ready with a solution to help his patients to heal the fastest with the least pain.

Broken Planet:

The Broken Planet is hit by a shower of meteorites and pieces of it break and are now floating around in space. The Space Doc must collect these pieces and join them back onto it to help it heal. It is the first planet that the player helps on his journey around Achelois.

Heated Planet:

The Heated Planet is a friend of the Broken Planet. It is the Broken Planet that tells the Space Doc about the sickness that the Heated Planet is going through. It needs to cool down for which it needs help from the Space Doc.

Cold Planet:

The Cold Planet is suffering from cold since it has lost its torches that used to keep it warm. The Space Doc collects these torches and gets them back to the Cold Planet and fits them back into their respective slots which help the Cold Planet get its warmth back.

Pollution Planet:

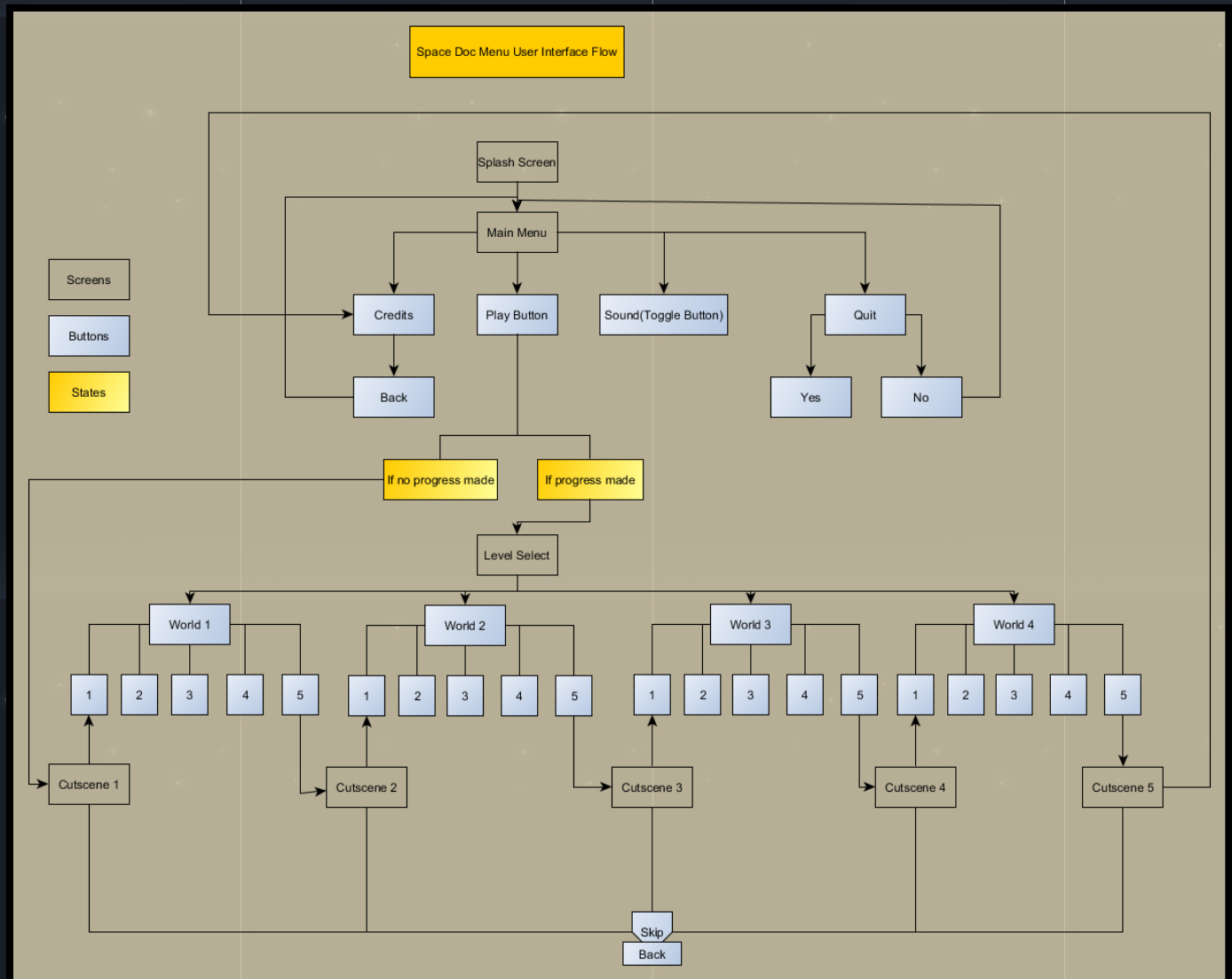
The Green Planet finds the Space Doc on his way home and asks him to help its friend, the Pollution Planet. It was emitting a lot more smoke than it should have and was not able to control it and needed some help in controlling it. The Space Doc helps him control the smoke eventually by stopping the factories from emitting out smoke.

Section IV – User Interface

Space Doc is aimed towards children hence the UI is minimal and simple. The buttons and aesthetics of each screen will be vibrant and easy to understand. The number of screens and the options available will be minimal, but still flexible enough to let the kids be comfortable while interacting with the interface

4.1. Game Screen Flow

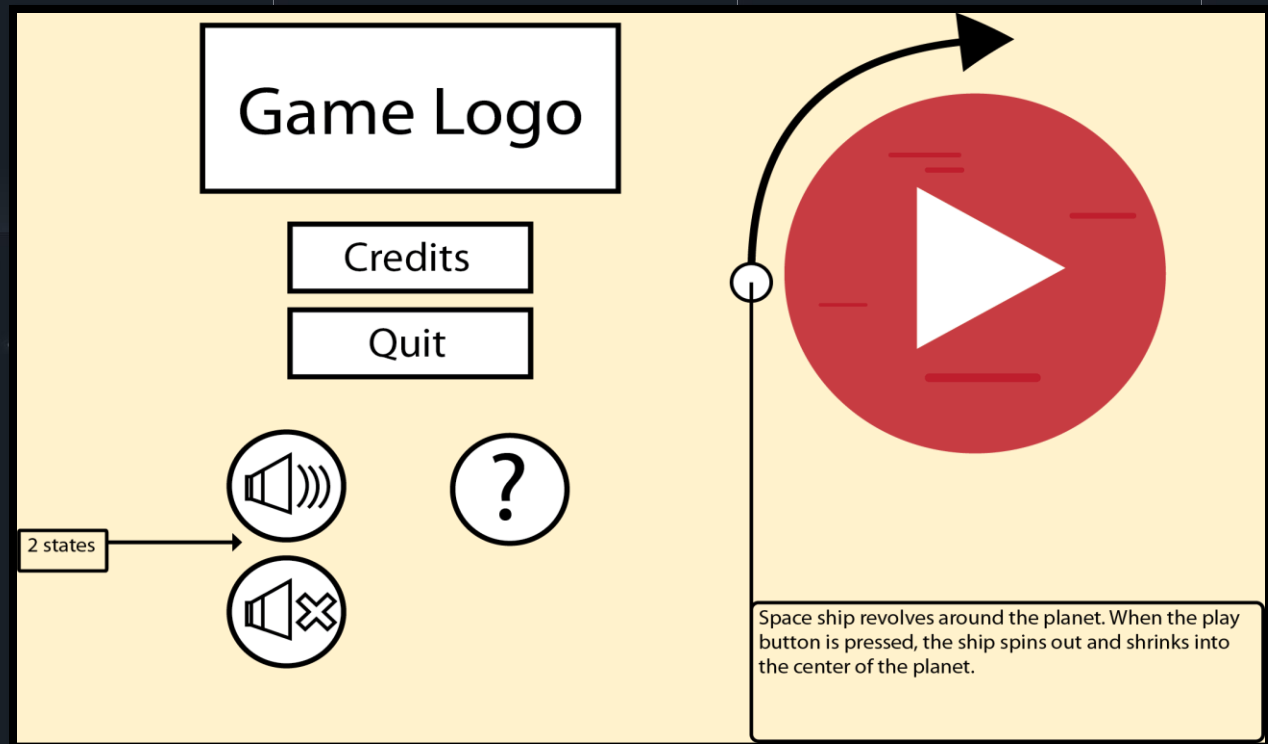
Following is the game screens flow, the buttons each screen will have as well as the transitions for one screen to other.



4.2. Wireframes and Mockups

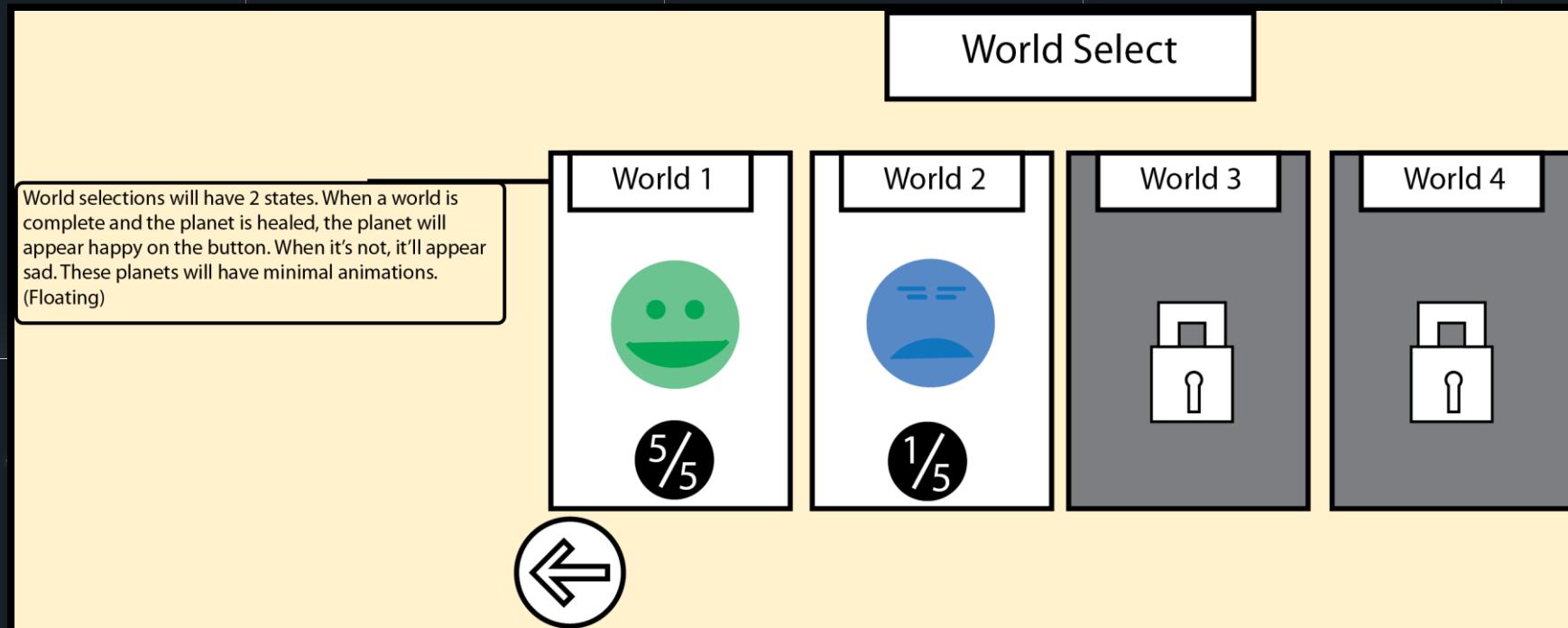
Following mockups indicate the menu structure and the general ideology of the way menus are designed for the Space Doc.

Main Menu



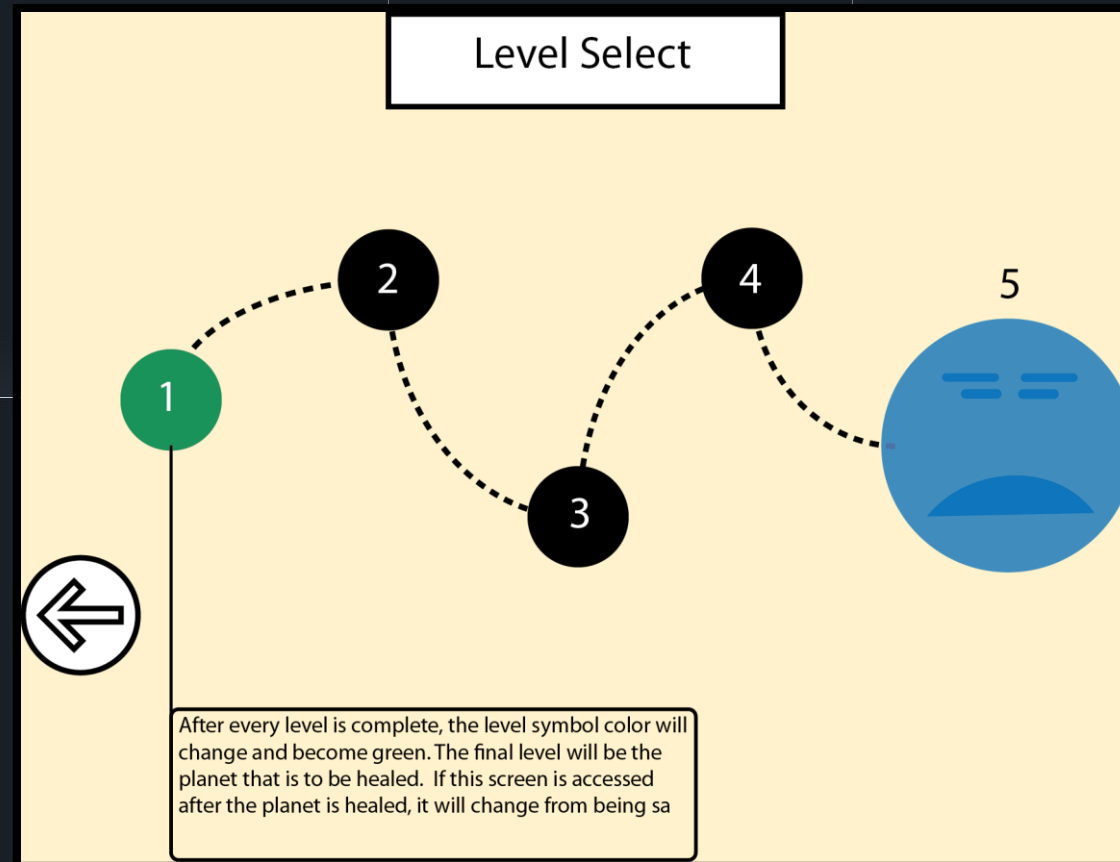
The play button is the biggest for the kids to get attracted to the button and because it should be noticeable. The menus are fairly simple, hence only one extra overlay of tutorial/how to play will be shown. Rest of the buttons will be toggle buttons.

World Select



The world selections screen will show the sick planet and indicate how many levels have been completed in each world. After the sick planet of that world is healed, the planet will be shown happy and cheery. Visuals of the tab will change depending on if the planet is healed or not.

Level Select Screen



The level select screen will show each level and will finally lead to the final sick planet. After a level is complete, the icon on the button indicating it will change color.

Game Screen

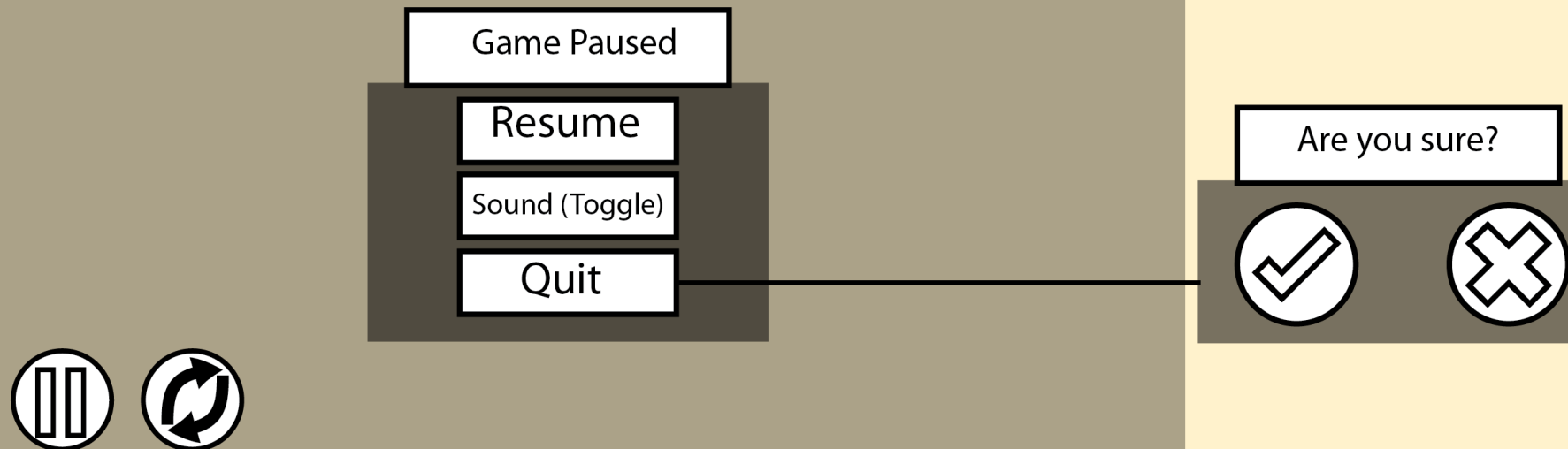
Restart?



Pressing restart will restart the game. Small menu will be shown, if player chooses 'yes' the screen will have a black fade in and out and it will restart.

Pressing it will pause the game and show pause menu.

Game Screen



The game screens will have just 2 buttons. A restart button to restart the game and a pause menu button to open the pause menu. Restart button will open up a pop-up menu to confirm the player wants to restart. Pause menu will present three options which are – Resume, Sound and Quit. The resume button will resume the game, the sound button is a toggle button that will switch the sound on or off and quit is to get back to the main menu. Pressing quit will show one more dialog box to confirm if the player wants to really quit or not.

Cutscene

Tap once again to skip.

During cutscenes, there's a chance that the player will want to skip the cutscene if he has previously seen the cutscene or just wants to skip it. To skip it, the player can tap on any part of the screen twice to skip it. Children are prone to tapping unknowingly on the screen, this will be a measure taken to keep them from accidentally skipping the cutscene.

Tapping it once will show the text 'Tap once again to skip', if the player taps again the cutscene will skip. Not tapping again will let the cutscene play and the text will eventually disappear.

Section V – Audio

5.1. Music

Since our Game for Kids has a space theme, along with physics-based mechanics, the audio flow of the game depends on having catchy background music that is soothing to the player, but simultaneously blends with the sound effects to create an ambient atmosphere.

5.1.1. Style

The plays a core part as it determines how our game will sound. Our style is mainly minimalist, with a slow paced atmospheric feel to it. Since the gameplay will be the main attraction in our game, sound design will consist of ambient background music soothing to the ears, which does not exhaust our listeners.

5.1.2. Pacing

The pacing of music in our game is on a low tempo, mostly on 65-80 BPM. This means the pace will be slow, and the music will bring out the extra effects that will make the music sound a whole lot better.

5.1.3. Instrumentation

For our game, primarily focus on the piano, some 808's and subtle synths. Setting the right tone for our game will be the top priority, and using a popular and easy-to-use DAW like Fruity Loop Studio's plugins; Delay 2, distortion and Reverb 3 will help create a dynamic flow to the music.

Having small bars for the piano adds sudden rises to the melody allowing for an upbeat tone. Adding relaxing music to the background allows the listener to differentiate between the game audio and the sound effects (SFX).

5.2. SFX

Ambience – The ambience in our game is very background centric, and atmospheric. The game takes place in space, and has an overall humorous tone to it, so the music is presented in a subtle way, almost in a silent way. Game elements that can contribute to the ambience of our game will be asteroids passing through, or volcanoes erupting, etc.

5.2.1. Interaction with GPI

Modulating our audio to blend with the game play elements is important for any game, for example, when the spaceship gets hit, or crashes into another object then the instant sound of a clang rings from the spaceship acts as feedback to show it interacting with its surroundings. Most audio interactions with the gameplay elements will be in a sort of comical tone to it.

Some elements that will consist of audio are also key features in our game –

Bouncing off a planet – This sound will be used to show the feedback from the player spaceship bouncing off an angular planet. Following the comic style of our game, the sound of a common ball bounce with some modulation will be apt.

Volcano eruption – Some planets have volcanoes as their element, and to show the volcano erupting, and to truly capture the moment, audio feedback is needed. A common sound of an eruption will be right for this element.

Going through pipes – Certain puzzles in our game will use pipes to transverse the spaceship, and a suitable sound would be a sharp, metallic sound.

Spaceship taking damage – When the player takes damage from other game elements, the sound of his ship taking damage is crucial for audio feedback. The sound will be sparser, and will sound more like a punch to the trunk of a car.

5.2.3. Interaction with UI

Audio Feedback

Being able to accurately receive a sound when a button is pressed is part of good sound design. For the player, sound is everything. Through audio he has an idea of what he is pressing. For example, both the pause and resume button go hand and hand with each other, but both should sound different to assure its listener that the right button has been pressed. Relating to feedback, when the back button is pressed by the player, the background music should blend along with the sound effect to create a clear transition.

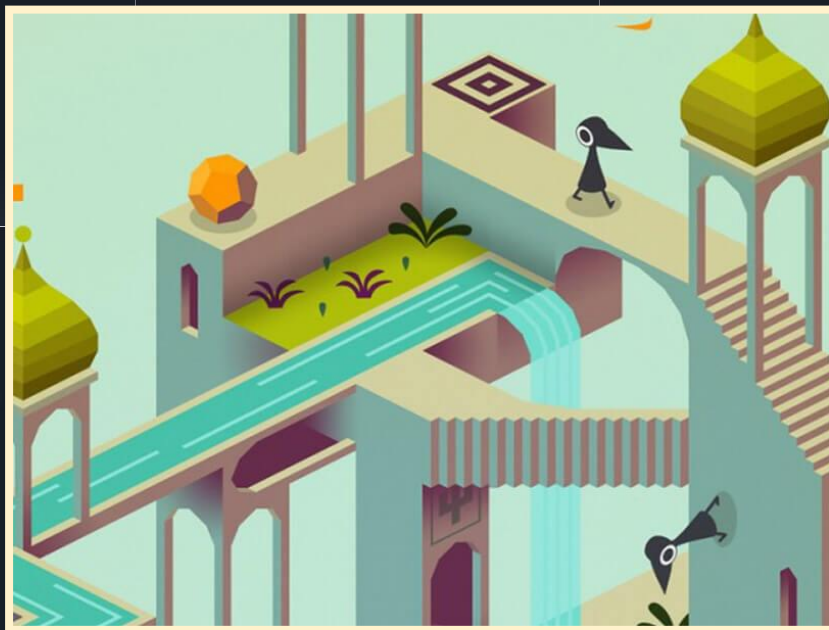
5.2.4. References

Angry Birds Space



Angry Birds Space has fast paced melodies with heavy use of synths. In order to make the sound compliment the immersive feeling of being in space, the usage of synths reinforces the cause.

Monument Valley



Monument Valley has melodies which generally gives a relaxing and calm mood to the experience. The minimal use of heavy sound and more emphasis on the instruments and harmonies make the sound unique.

Space Doc aims to have a sound that blends them together and make the player enjoy the experience.

Section VI – Art

6.1. Art Style Description

The Art Style chosen for the game is a low-poly cubical art style. This kind of art style was chosen to break the basic stereotype of having only round planets. The planets will be cubical and any discretions on each planet will be depicted by having more objects sticking out perpendicular to the surface of the planet.

The assets will be flat shaded with a texture to break the monotony.

This art style brings out the simplicity in the game which appeals to children and also reduces the load on Mobile Devices as cubical objects account for lesser number of polygons in comparison to spherical objects.

6.2. Cutscenes

Most of the story sequences will be depicted through cutscenes which will be pre-rendered in either Motion Artist or After Effects to reduce the load on the client system. Animations will be kept simple and concise to convey the story properly.

There are 6 cutscenes planned in total – one will appear before the start of World 1-1, and rest of the five will appear whenever player completes that specific world.

6.3. Character Design



The Space Doc is a Chibi kind of character with a head that looks like a planet (cubical). He wears a nurse hat and carries a first aid kit which gives the player the indication that he is a doctor.

6.4. Environment Design

Cubical planets will be superimposed on a dark blue background. Stars will be dynamic and backgrounds will pan.

6.5. UI

The buttons on the interface will be colour coded and will be based on the 60 – 30 – 10 Rule. The dominant colour on the buttons will be 60% of the button, 30 % is the secondary colour and 10% is the accent colour.

The colours that will be used for buttons that change scenes will be primarily of green accents, while buttons that make the player exit the scenes will have red accents.

Each button will have an idle state and a pressed animation. Few of the buttons will change the graphics on them when certain worlds are completed.

Every other detail about the art of the game will be detailed in the Art Bible.

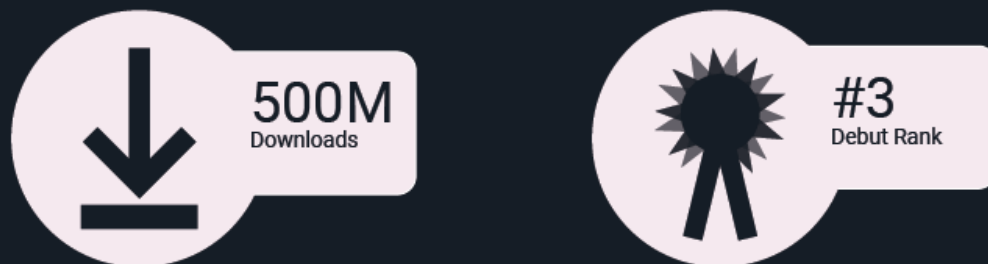
Section VII – Research

7.1. Market Research

Space Doc is primarily being made for Android, hence is expected to release on the Play Store. The game is to be categorized under puzzle games in the PlayStore.

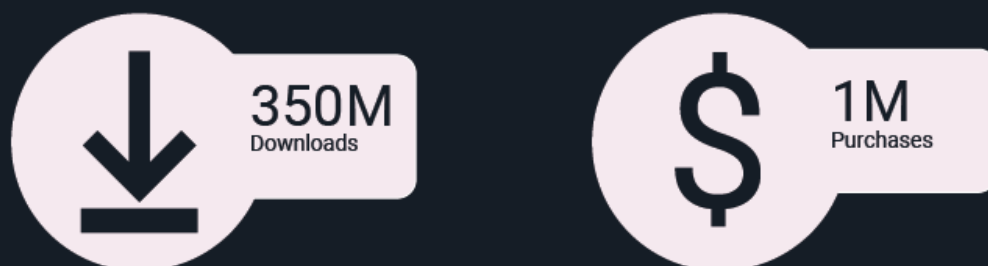
The game contains no graphic violence, gore or use of swear words whatsoever. ESRB rating of 'E' is expected for the game. Comparing the games aforementioned in the document shows the accessibility of Play Store and the big market that the game will be available to. Following are the demographics of the games –

Demographics – Angry Birds Space



Angry Birds Space surpassed its predecessor and had around 50 million downloads 35 days after its launch. The game was the 3rd most downloaded game on the play store for that period. As of now, the game stands at 500M installs.

Cut The Rope – Demographic



Cut the Rope hit 10M downloads in the first week of its release as well as rose to the top of the AppStore with 1M purchases made in those 9 days. The game has around 350M downloads in Play Store itself.

Space Doc aims to appeal to casual gamers too as well as puzzle enthusiasts.

7.2. Target Audience Research

Appeal to Children

Children from 6 – 10 years of age are the target audience according to the project guidelines. Themes and the visuals as well as gameplay in Space Doc should mainly appeal to the children.

Due to this, the gameplay has been kept simple yet holds learning value. Kids will unconsciously learn the environmental problems as well as how to solve them through the mini games. Space Doc will also teach the kids about physics through the travel sequences.

Appeal to Parents

The parents of the children will be the ones who will be giving access to the device for them to play on. Hence Space Doc should also appeal to them also and for that very reason there is no gore, violence, suggestive text and swear words in the game.

The game also enables the parents to play it with their children in order to help them bond together more.

End of The Document