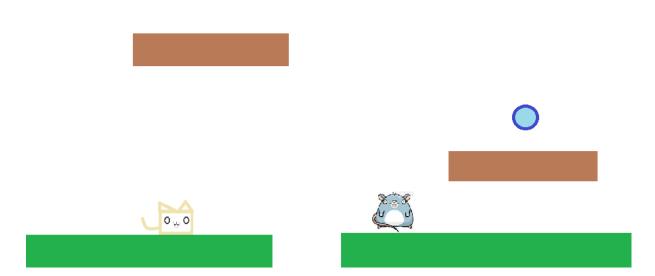
# **IT Project**

## Sidescroller Fighting Game



## **Graphics:**

The game will be a full 2D sidescroller, meaning that the actual background calculation will take place on two 2D plains. One plain will represent the foreground, the other the background scenery.

The actual gameplay will take place in the foreground.

The characters will be animated 2D images. (Sprites)

# <u>Theme / Story Elements / Target Audience:</u>

The game will have a largely child-friendly cartoon environment, which contains mild violence and surreal environments and physics.

The game is supposed to aim for a low-age rating. (12 or younger)

The target audience is still supposed to be broad-spectrum, so the game is supposed to look appealing and child-friendly but gives no quarter in complexity.

The jumping puzzles are supposed to be solvable within a few seconds, but require a reasonable skill in hand-eye coordination.

The difficulty is supposed to be a result of the combination of the combat system and jumping puzzles.

The plot will revolve around geometrically shaped pet animals, such as the cube cats, which are cubes with rounded edges and corners, cat faces, (floating) paws, cat ears on top and a cat tail.

For additional characters it is not yet set in stone there can't be other pets than cats and other shapes than cubes as possible player characters. However those will be stretch goals anyways.

The game world is supposed to take place in different locations, such as fictional city settings, suburb, parks and forests.

The plot and story is supposed to a politically neutral or universally accepted political topic, such as environmental protection.

During the story there will be easily distinguishable bad-guys that will be fought with mild violence.

An example bad-guy would be a sly looking canal rat.

In stretch-goals possible story-outcomes will be peaceful endings, e.g. after defeating the rat king, they come to their senses, call up a lot of rats, that throw away their helmets as a sign of disarmament and walk away peacefully.

These story elements are to be further specified and may not make it into the game, but their meanings are meant to be webbed into the picture the game delivers.

### **Characters:**

The player character will be a fictional cartoon cube with the facial features of a cat, cat feet and a cat tail attached to one plain of the cube (adjacent to the face's plain). The character will be given a name, which is yet to be determined. For the time being it will be referred to as "Cubey" as a W.I.P. name.

Cubey plays the role of a hero with special powers. It can rotate its cubic body and its tail with it.



Depending on the direction the tail is pointed at, Cubey is able to perform different actions, such as jumping very high and dashing.

It uses those special abilities to defeat its enemies and to solve jumping puzzles.



Its visual representation is supposed to utilize anime-cartoon's "chibi"-art styles and aims for a "cute" look that is meant to be broad-spectrum appealing. So it is not supposed to be overly cutesy, but still addressing the scheme of childlike characteristics. Further the oversized eyes are to be dodged as much as possible; smaller circular cartoon eyes are to be preferred.

Enemy characters (EC) are supposed to be unfriendly looking animals, people and every-day items.

Possible ideas until now are sly canal-rats with helmets, aggressive street dogs (critical) and unfriendly people such as a person with a broom (that fills the screen and serves as a boss enemy), but also robots.

#### Level Design:

The levels will be 2D environments that have a beginning and an end.

By default the beginning is at the left side of the level and the end is at the right side of the level.

The player will have to reach the exit by moving there from the starting point.

The levels will consist of 1D-surfaces to walk on.

Said surfaces will be used to increase the complexity of the level and web in minor jumping puzzles that increase the difficulty and complexity of the combat system.

Additionally there will be death-pits, which are technically on-touch death zones.

Another element will be crumbling bridges that consist of multiple objects forming a bridge. When the player sets foot on them, they start shaking and fall down after a short time.

There will be various items spread across the levels.

Buttons will be combinable, so the PC will be able to move forward and jump at the same time, or perform more complex actions as further described in the combat system part.

#### Gameplay:

The player will control one character.

In the basic version of the game for the player there will only be one character to choose from.

There will be downwards directed gravity, which has to be fine-tuned.

The controls will be made for Microsoft-standard keyboards with PC-compatible Microsoft-standard XBox controllers in mind. The base game will be compatible with keyboards only.

The player character (PC) will move and act by control keys. There will be arrow keys or a directional pad that control the character's movement.



The "left" key will have the character face and move to the left of the screen, the "right" key will have the character face and move to the right of the screen.

The screen will scroll together with the PC.

The PC will be in the middle of the screen.

#### Combat System:

There will be an HP system. Every character will have an HP bar.

Attacks deal damage to that HP bar, meaning the damage value will be subtracted from the HP value.

There will be additional states such as "stunned" and "pushed".

On normal enemies "pushed" causes an enemy to refrain from attacking and move backwards by a small amount.

Enemies with a (passive) defensive ability will lose the defensive ability for a moment and become vulnerable.

Enemies will be computer (AI) driven characters, that by default try to attack the player. Each enemy has a unique set of abilities to create diversity-rich challenges for the player. These ability-sets will generally consist of 1 to 3 abilities depending on the purpose of the enemy character (EC).

In the base game there will be at least one, but preferably 3 different types of ECs.

EC AI will try to move the EC towards the player or depending on the type of EC generally into ideal combat position. If necessary, the EC will try to keep a certain distance (e.g. ranged fighters or shield-bearers).

Beyond their special abilities, of course ECs by default will be able to run and jump.

The PC Cubey will posess a broad spectrum of abilities.

These will of course contain rudimentary movement set of running and jumping. Beyond that Cubey as described before will be able to "roll" and therefore change its tail's direction.

The tail's direction can be chosen by holding down a key such as [shift] and an arrow-key. Until now the decided special abilities that depend on the tail's orientation will be:

#### Dash Mode:

Trigger: [Shift] + [◀], [Shift] + [▶]

Cubey's tail points into the direction it is moving or moved before.

Pressing the action key now causes Cubey to dash a (to be distinguished) reasonable distance forward. Any EC in its way will be damaged and/or pushed.

Cubey is soft-invincible during the dash animation. (can still be "killed" by environmental objects)

#### Helicopter Mode:

Trigger: [Shift] + [▲]

Cubey's tail points upwards.

Pressing the action key now causes Cubey to float horizontally for as long as the key is pressed down.

Balancing Note: it is to be distinguished for how long Cubey can keep floating and whether Cubey slowly descends or stays perfectly horizontal.

#### Pogo Mode:

Trigger: [Shift] + [▼]

Cubey's tail points downwards.

Pressing the action key now causes Cubey to jump very high.

Holding down the button causes Cubey to keep jumping like its tail was a pogo stick.

Beyond its special moves there will be an attack-move that causes cubey to attack into the direction of the arrow key pressed down.

If the player is currently jumping and pressed down the arrow key, Cubey will drop and damage enemies it hits on its way down. The damage will stack-up with the distance it fell until it hit an EC.

# **Stretch Goals:**

- The implementation of additional cube-cat characters
- More enemies
- More levels
- Additional difficulty modes
- More complex AI
- Boss fights
- Cut scenes
- Story with chat bubbles