Bread & Jam

Contents:

Game Design Document: Jam and Bread

Introduction:

The very first game to be ever played on an electronic device was 2D(Pong). 2D games are light on the very powerful devices which people use now-a-days. The amount of detail the game can hold even from a 2D perspective is huge.2D games can vary based on the camera's perspective and this influences the game play itself.

Some common types of 2D games based on perspective:

Top-down perspective:

Typically consists of the RPG genera. In these games the player will look at the game world from above. Almost all Pokémon games have used this perspective.

Fig 1. Pokémon Diamond and Pearl

Pokémon a 2D top down game

Side-Scroller perspective:

These games are typically platformers or endless runners. The camera faces one side of the characters.

Fig 2. Sonic the Hedgehog

Case Study: Shank

Fig 3. Shank

Shank a popular 2D game

Genre: adventure, platformer, combo-combat, action, mature, multiplayer

Targeted audience:

+17(ESRB rating), Players who are comfortable with platformers like Mario and combat systems similar to older version of mortal kombat.

Authors: Electronic Arts

Platforms:

Linux, Mac OS X, Microsoft Windows, PlayStation 3, Xbox 360

Gameplay:

The player takes control of a vengeful man named "shank" due to his choice of weapons. The movement is smooth and easy to learn. Shank comes with an assortment of weapons which the player must actively switch through to create combo chains.

Game Mechanics:

The game uses a stagger system for combat. Every enemy has a different value for stagger, once they stagger they will be susceptible to combo. Shank recovers much earlier from a stagger than enemies do.

Asset Design:

The game has a soothing cel-shading like art style. Blood in the game is quite realistic. The background unlike many is quite active and not just a static image. Shank portraits a wide variety of emotions through facial expressions.

Review of game:

What made the game fun to play?

This game was extremely fun to play the story was captivating and interesting to explore.

The game provided fun challenging combat which never got boring, the variety of weapons which could later be unlocked created an urge to play and explore the game more.

What the game Lacked?

The game barely had any puzzle elements which typically enhance gameplay of 2D platformers.

Even though platformers generally don't have a dynamic story, a different path away from critical path could have help repeated gameplay.

Ratings (out of 5):

Story: **3**

The game's story was fun to follow but it was not dynamic unlike many other games which are available in the market.

GamePlay: **4**

The game is extremely fun to play. The combo system is challenge and rewarding once player masters it.

Asthetics: 5

The game visually pleasing and striking. UI and Game assets are related and the color scheme depicts the locality which is situated in the game Mexico.

Music: 4

The game is good combat music. But gets repetitive.

Level Design: 3

The levels visually have a lot of difference but the pathing and movement alone is repetitive.

Over All:4

The game delivers what it promised, hours of intense button mash combos.

Game Ideas:

Game 1: How I destroyed my Demon father's plans

Genre: RPG, action, adventure, immersive story

Target audience: 15+, people who enjoy RPG games, anime and Japanese culture.

Art style: pixel art

Synopsys:

- The game will be top down RPG game.
- The story follows a NEET (a smart person who is lazy) who is the son of the demon lord. He accidentally reviles his father's plans to take over the world on social media. His younger sibling enraged by this vow to kill him.
- The player then starts the adventure by trying to escape and make peace with his family and return back to his NEET ways.

Game 2: Gravity Knight

Genre: RPG, action, adventure, immersive story

Target audience: 15+, people who enjoy RPG and platformer .

Art style: pixel art

Synopsys:

- This game is a side-scroller platformer.
- The story follows a rogue knight who is wandering on the outskirts of a city. Broken and without purpose he roams the lands. He comes across a lonely old vagabond. The old geezer forces and convinces the knight to follow him around. A few years pass, and all of a sudden while the geezer lies in his death bed he instructs the young knight to go no a quest to find his wife and tell her "it was my fault" he also gives him his old magic sword which can manipulate gravity. And thus the game begins.

Game 3: Soldier of the board

Genre: action, Strategy

Target audience: 15+, people who enjoy RPG and platformer.

Art style: pixel art

Synopsys:

- This game is a side-scroller platformer.
- The story follows a rogue knight who is wandering on the outskirts of a city. Broken and without purpose he roams the lands. He comes across a lonely old vagabond. The old geezer forces and convinces the knight to follow him around. A few years pass, and all of a sudden while the geezer lies in his death bed he instructs the young knight to go no a quest to find his wife and tell her "it was my fault" he also gives him his old magic sword which can manipulate gravity. And thus the game begins.

Game 4: Jam & Bread

Genre: action, Strategy

Target audience: 15+, people who enjoy RPG and platformer.

Art style: pixel art

Synopsys:

Kiss-ann is a member of the ancient Jamo-illion race who travel the world to spread happiness with their kin The bread-ords. Kiss-aan has been training his whole life to fulfil this mission.

The player travels to different worlds and frees bread-ords. typical platformer controls with unique powerups , enemies and objectives.

Critical Analysis:

The ideas above were throughout for the game a month website link:
http://www.onegameamonth.com/.

The final game Jam& Bread was selected for the December month. Upon review from my peers they found the idea humorous and intresting. So I selected that game.

Selected game: <u>Game 4 Jam and bread</u>

Introduction to "Jam and Bread":

The game follows the Kiss-ann of the jam-illion race. Jam-illions are an alien race who travel the universe and help the bread-ords a peaceful race who have a crucial mission of destroying hunger throughout the world.

Genre: Platformer, adventure

Targeted audience: 5+Players who enjoy playing 2D adventure games and enjoy a funny story

Gameplay:

The player uses the following buttons to move around and navigate through the world.

Controls:

A: moves left.

D: moves right.

W: jumps up.

Left mouse button: shoots a butter bullet if player has the ammo and container for the same.

Right mouse Button: shoots a Jam "rope" which sticks to surfaces and allows the player to cross large gaps.

Game Mechanics

The entire game runs on a physics based world. Game maker inertly does not provide physics, instead uses Box2D. the player movement, powers and collisions are all based off physics.
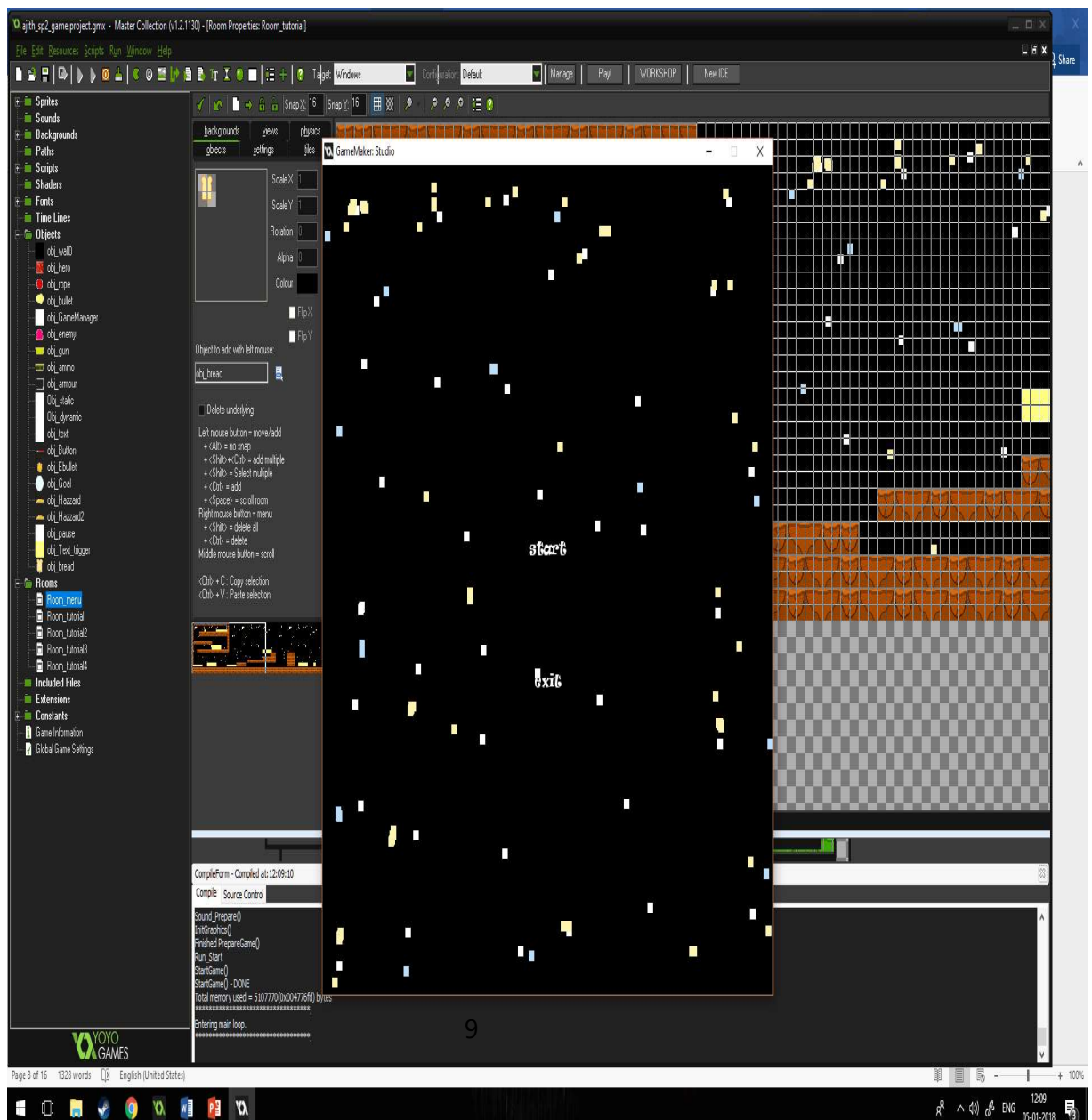
Menu and UI:
The game uses a very simple UI system.
The menu uses mouse click based intraction..
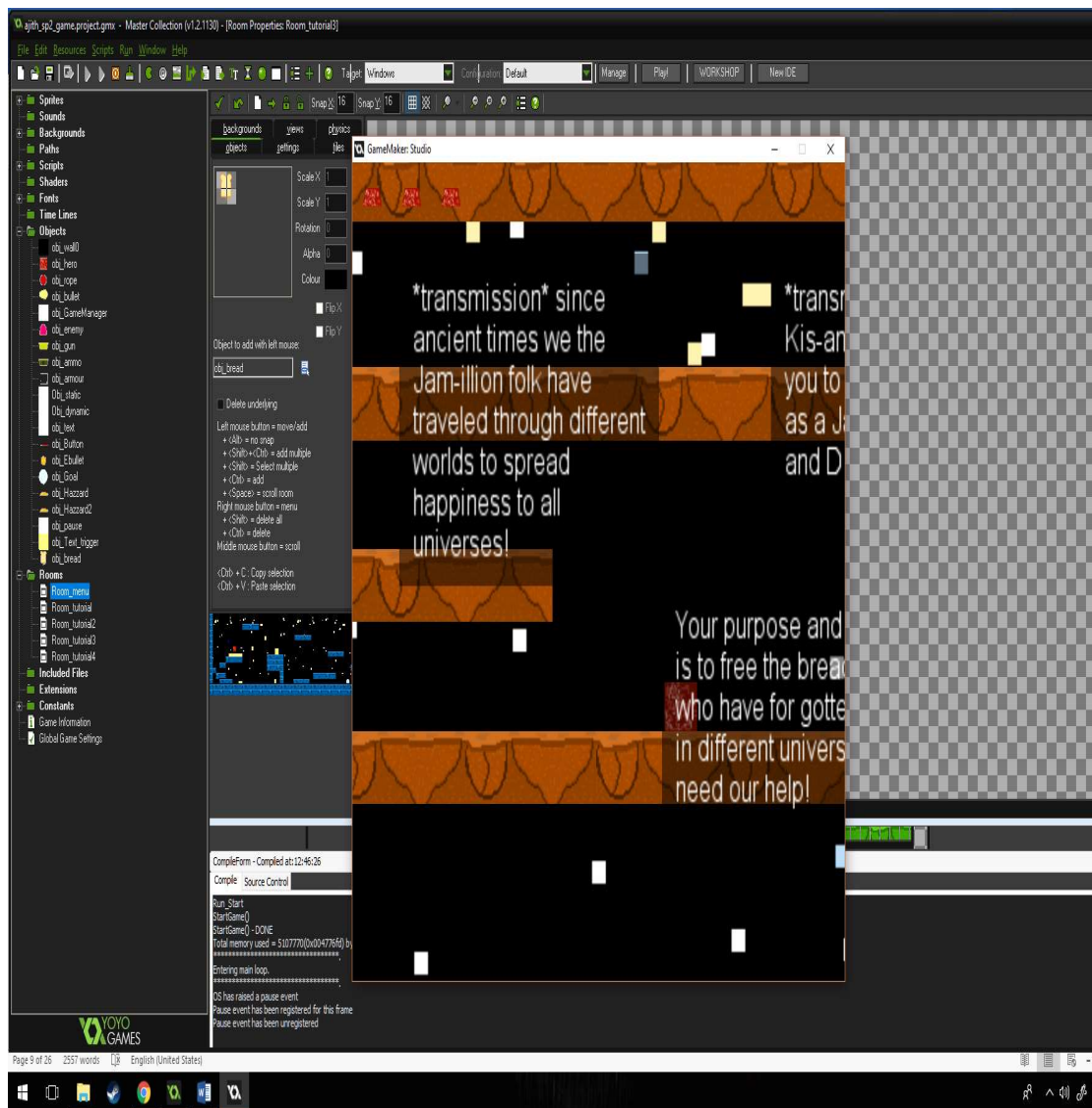The game uses a button based ineration of pausing and returing to menu.
The colors were selected to keep in theme with the game.

**Fig 4. Game Menu**

In game GUI:

Fig 5. Game Screenshot

The HP count is displayed on the top left corner of the screen. The number of jam images dictates the number of lives remaining.
The story is mainly displayed through GUI text boxes which appear throughout the game world. To explain plots and items in the story.
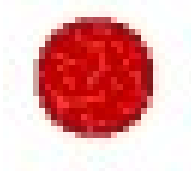
Assets and their uses:

Kiss-ann: this sprite sheet is what represents the player and protagonist of the story. It contains 2 variants which have been used to create an animation.

<div align="center">Fig 6.Kiss-ann Spritesheet</div>
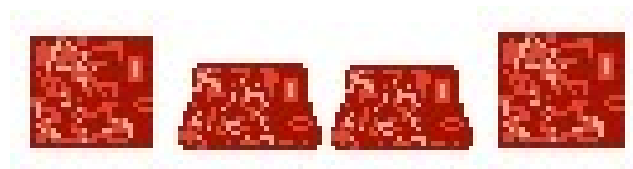
Rope Bullet: this image is what the player shoots out to create an attachment for this rope.
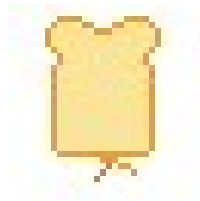
<div align="center">Fig 7.Rope Bullet</div>

<div align="center">Rope: This is the sprite which fills the gap between the player and the rope bullet.</div>
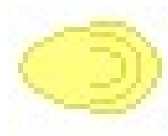
<div align="center">Fig 8.Rope</div>

Bread-ord: These sprites represent the objectives which the player has to collect.
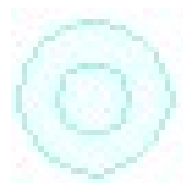
Fig 9.Bread

Butter Bullet: This sprite represents the butter bullet shot by the player.

Fig 10.Butter Bullet

P.L.A.T.E: The planetary lambda apex transportation entity is the "portal" which the player needs to reach to proceed to next level once he collects all the bread-ords.

Fig 11.P.L.A.T.E

Peanut-butterord: These represent the peanut butter race who damage the player and shoot peanut-butter bullets.
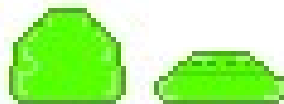
Fig 12.Peanut-butterord

Peanutbutter-bullets: these represent the projectiles fired by the Peanut-butterord.

Jelly-oids: these sprites represent the jelly race who move about and damage the player on contact.(different hue used in game)

Fig 13.Jelly-oids

Butter-Gear: this sprite represents the butter gear which acts as a container for the butter ammo which enables the player to soot.

Fig 14.Butter-Gear

Butter-ammo: This sprite represents the butter ammo which allows the player to shoot butter bullets.
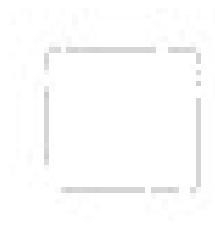
Fig 15.Butter-ammo

Plastic Wrapper: this sprite is used to represent a HP recovery system in

the game.

Fig 16.Plastic Wrapper

Background:
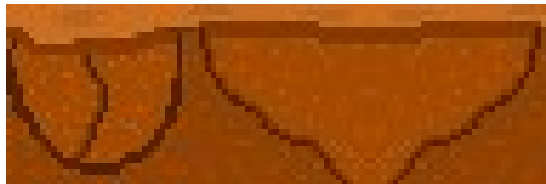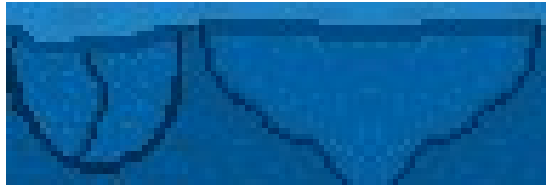
This image was used as the back ground for the game.

Fig 17.Space Background

Tile Set:

Different hues of this image were used as tiles to depict the terrain.

Fig 18.Tile set

Bug reports:

There are occasional bugs in the game. The rope does not have a max distance.
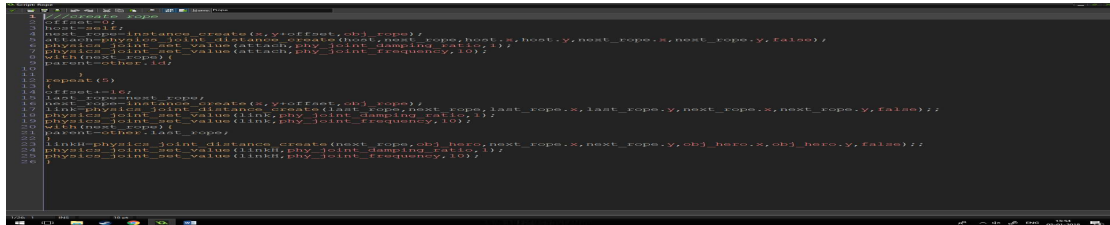
Code Snippets:

Fig 19.Rope mechanism

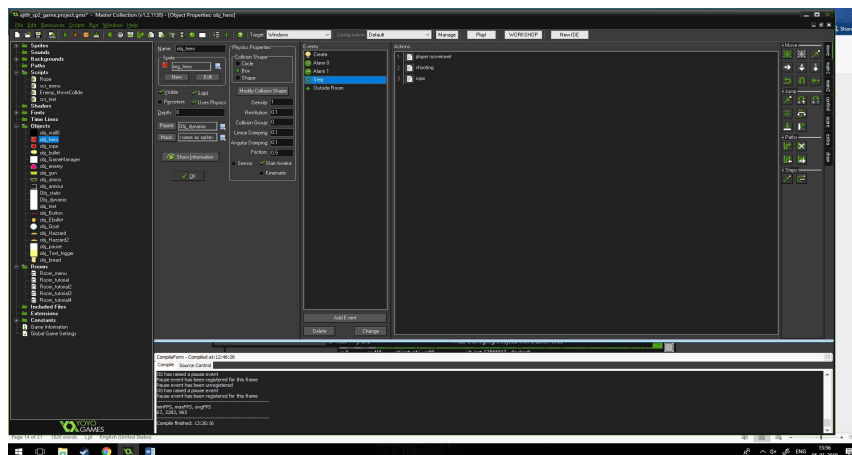**Fig 20.Screenshot of obj_hero events and actions**

Fig 21.Screenshot of obj_hero movement action

```
1 ///player movemnet
2 //input
3 left_key=-keyboard_check(ord('A'));
4 right_key=keyboard_check(ord('D'));
5
6
7 move=left_key+right_key;
8 hsp=move*move_speed;
9 dir=sign(hsp);
10 //jump only from ground
11 if(physics_test_overlap(x,y+1,0,obj_wall0))
12 {
13 jumping=false;
14 }
15
16 if(keyboard_check_pressed(ord("W"))&&jumping==false&&latched==false)
17 {
18 jumping=true;
19 physics_apply_impulse(phy_position_x,phy_position_y,0,-jump_speed);
20 }
21 //phy_position_x+=hsp;
22
23
24 if(latched==true)
25 {
26 physics_apply_force(x,y,move*swing_force,0);
27 }
28 else
29 {
30 phy_speed_x=hsp;
31 }
```
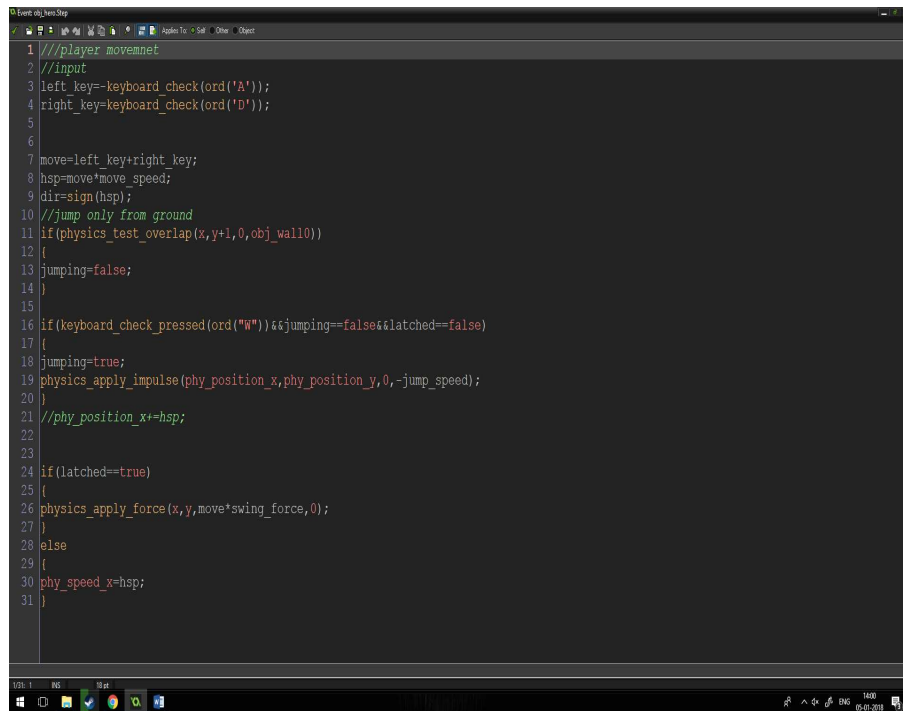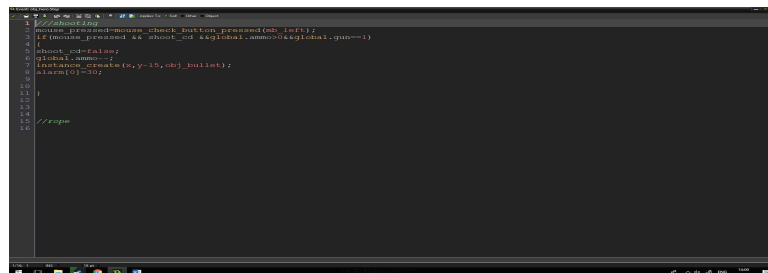
Fig 22. Screenshot of obj_hero shooting action

Software Used:

Adobe Photoshop

The assets were initially designed in photoshop.

Fig 23: Photoshop CS6

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The inbuilt sprite editor provided by game maker was also used for creation of some of the assets.

Game maker master collection v1.2.1130:

Game maker was used to create this game. This software was developed by YOYO studios. Game maker follows the OOPS concept for the game. Game maker allows coding to be done in 2 ways

Drag and Drop method: Allows quick and easy coding but lacks control.

GML Scripting: Utilizes the full capabilities of the game engine.

Game Maker and Physics engine:

Game maker utilizes box 2D as its kernel for its physics engine. Although process intensive careful coding will allow creation of beautiful physics based games.

Fig 24: Game maker master collection example

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top-down game. (n.d.). [image] Available at: https://i.ytimg.com/vi/3UzFJRmQoY4/maxresdefault.jpg [Accessed 4 Dec. 2017].