Saving Magic
Design Document

1.3

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Design History

Initial Draft 5/13/2013

Revise 1 5/15/2013
- Integrate design suggestions

Revise 2 5/17/2013
- Banking leaderboard fix

Revise 3 5/21/2013
- World 2 world 3 background setting change
- Story framework

Revise 4 5/22/2013
- Store revise
- Level setting change : all levels will be towers
- Boss battle design

1.0 5/28/2013
- Intro / Outro
- Dying / extra life using description

1.1 5/29/2013
- Changing on purchasing / consuming ascend potion
  - Another way to implement educational content

1.2 5/30/2013
- Level structure change
  - Level 4 in each world will only be boss battle

1.3 6/24/2013
- Updated Storyline and Cutscenes
- Changed document title to "Saving Magic"

Overview

General:

- **Main Target Audience: 5-12 year-olds**
- **Target Platform: iOS / PC / Mac / Web**
- **Genre: Platformer / Action**
- **Player Number: 1**
- **Screen Aspect: Portrait**

Game Concept:

Gameplay:

In the game, the player controls the avatar to jump upwards from platform to platform(rock, wood, metal, etc.), climbing to the top of the tower/castle while collecting coins. The player only controls the jumping direction of the avatar, the avatar can also perform an action to help the climbing(See control for specific description). When the game starts, the avatar starts to jump automatically. He/she also jumps automatically as the he/she touches the platform.

There are 2 play modes, campaign and endless mode.

- *Campaign*

    In campaign mode there are different worlds, each world has multiple levels. The difficulty of gameplay rises as the level/world progress. Between each worlds, there are cutscenes. There are also boss battles at the end of each last level in each world, which involves no change in control mechanic but a slight change in play mechanic in each boss battle. Before boss battle there are also in-game dialogue to convey the story. By default, player has only one life. If player falls off to the bottom of the screen, it costs one life, if player runs out of lives, he/she will have to restart that level.

- *Endless:*

    In the endless mode, the player can choose from one of the four worlds, and they differ only on appearance. The goal is to get as high as possible. The difficulty goes up extremely slowly. If the player falls off to the bottom of the screen, he/she fails. After the player fails, the results goes to leaderboard if he/she lasted long enough.

Figure 1 : World map reference(Clash of Clan)

In both play modes, the player collects coins as they jump through the levels. They can use these coins to purchase cheap resources on the menu to help them through levels, or to choose to deposit them in the bank, which will generate interest heavily to reward the player later. Each time the player deposits coins to the bank, the bank starts to generates interest based on real world time and how much they deposit. The interest will be very heavy and allow the player to purchase really important resources in later levels to help them get through.

Players can also spend the coins by purchasing upgrades to help them play through campaign mode and challenge mode. Skills will be expensive to purchase, compared to consumables, and higher level skills will be extremely expensive to purchase. This encourages player to play more and deposit more to get coins to purchase skills to help them play. Upgrades of higher level skills will be extremely expensive to purchase.

There are also achievement systems. Some of them are for game play, some of them are for storing coins in the bank.

Overall, the game will provide an engaging, interesting play experience through simple gameplay mechanic, and also provides great replayability.

Feature set:

- 3D
- Medieval setting
- Four worlds for four themes (see fig.1)
- Wizard / Sorceress avatar
- Avatar customization
- Easy control

World / Level Structure

There are 4 worlds, each world has its unique appearance setting. In each world, player needs to go through 4 levels in order to beat the world. At the end of each level, there will be a chest at the end for player to open. At the end of last level of each world, there will be a boss battle, and the boss drops gold when player defeats it.

Each level would take 2-5 minutes to finish, including levels with boss battle.

Every level will be a tower, the level setting only differences on the texture of the tower, the platform, and the background.
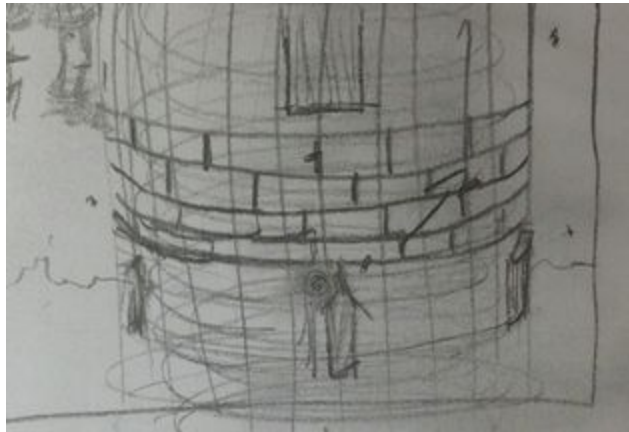

Figure 2: Concept art for tower

World 1: Tower in Castle
-Level 1
-Level 2
-Level 3
-Boss 1

World 2: Ruined Tower In Forest
-Level 1
-Level 2
-Level 3
-Boss 2

World 3: Tower Surrounded by Pyramid in Desert
-Level 1
-Level 2
-Level 3

-Boss 3
World 4: Tower Near a Volcano
-Level 1
-Level 2
-Level 3
-Boss 4

Characters

Figure 3: Concept art for character design

There are 2 characters to select from, the wizard and the sorceress. Each character uses different model, and player can customize character's hat/head, cloth and their colors.

Character customization model and color can be partly accessed from the beginning, the player will need to go through tutorial to purchase the initial free customization assets.

For visual purposes, cloth and hat in character jumping animation animates simple cloth physics.

Gameplay and Mechanics

Gameplay

Control:

- Move
  - Player controls the jumping direction through tilting the ipad / moving mouse
  - The speed of movement on horizontal axis is affected by how much the player tilts the screen, but within a limit on maximum.

- Attack
  - Player can purchase this ability after finishing world 2.(See upgrade for more detail on purchasing)
  - After purchasing this upgrade, player can use character to shoot lightning to attack incoming obstacle/enemy *by **touching left side of the screen***
  - The attack **auto aims** to closest object attackable. (See fig. 4)
  - Attack in the air is applicable.
  - Attack while dashing is applicable.

Figure 4: Auto aim attack reference
(Video reference: http://www.youtube.com/watch?v=a2b-PkX2QHo)
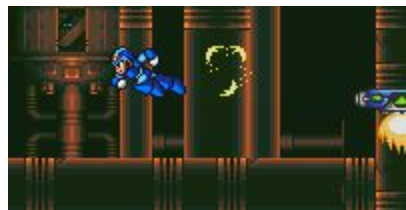
- Air dash

Figure 5: Air dash reference (Megaman X)

  - Player can purchase this ability after finishing world 3.
  - After purchasing this upgrade, ***by touching and holding right side of the screen,*** player can control the avatar to do air dashing to adjust the movement.(See fig. 4)

- ○ Player can hold to make the avatar dash longer within a limited time. During this time, player can release the touch to stop dashing.
- ○ After player dash, the character starts falling with inertia, even the dash started while character is ascending from jumping.
- ○ Attack while dashing is applicable.

- Double jump
  - ○ Back up plan for air dash
- Glide
  - ○ Back up plan for air dash

- Use ascension potion
  - ○ In the game store, player can purchase ascension potion to help them during gameplay.
  - ○ The ascension potion will be positioned at the lower-right corner of the screen
  - ○ To use it, the player needs to **tap at the icon of the potion**
  - ○ Player will need to spend gold to use the potion
    - ■ Starting price : 5 golds
  - ○ Every time the player purchase the ascend potion, the price will go up exponentially.(Times itself)
  - ○ After using the potion, the avatar will get a magic ascension which moves him/her upwards for a long distance
    - ■ The duration and speed of ascending will be adjustable in the editor
      - Default: 5 seconds
  - ○ The game will clear all obstacles as soon as the player use the potion, and will not spawn obstacles while the player is ascending.

If the player touches the enemy, he/she will fall to the bottom of the screen. If the player has an extra life potion when fell off the screen, the avatar will fly back to the screen and float for a 3 seconds (adjustable in editor) while the player can move the avatar horizontally to find a platform to land.

Campaign mode goals

Main Goal: Get to the top of the level, and in boss battle levels, defeat the boss.
Goal #2: Collect coins as many as possible
Goal #3: Unlock achievements(See achievements part for details)

Campaign mode rules

In campaign modes, if the player finishes a level, he/she will get bonus coins at the end of the level. In non-boss scenes, it will be a chest full of coins. In boss fight scenes, it will be the boss itself bursting enormous amount of coins.

Functionally, there are different kinds of platforms:

- ○ Static
- ○ One-time static
- ○ Special platform for last boss battle(see description for boss 4)

The appearance frequency of these platforms determines gameplay difficulty. One-time platforms will appear in later part of harder levels.

Each time a dragon is killed, it bursts a huge amount of coins into the air, and the coins falls for the player to collect.

- ● The coins being thrown out is particle effect, the real coin generator is off the top of the screen
  - ○ The particle effect is non-looping timed
    - ■ The time will be adjustable in the editor
- ● The real coins falling from top of the screen worths more than regular coins
  - ○ The spawning lasts for a period of time, and it will stop, after all the coins can't be seen, the game plays the outro
  - ○ Each boss spawns coin for a different length of time
    - ■ The time will be adjustable in the editor

At the end of the non-boss levels, there will be a chest at the top. When the player reaches the top, the chest will open and start to spawn coins like when the dragon dies. But the time will be much shorter.

<u>While the player is collecting coins at the end of the level, if the player falls to the bottom of the screen, instead of killing the player, the game plays outro and consider this level beaten.</u>

World 1

In non-boss battle scenes of world 1, player needs to control the avatar to jump towards the top of the levels, while also collecting coins.

If player falls to the bottom of the screen, he/she fails this level.

Boss 1

The first boss in the game is at the end of last level in world 1. Since the player will not obtain the attack ability in the first 2 worlds, defeating this boss will not require attack. Instead, the player is required to jump across different platforms in order to do something to damage the dragon.

In the 4th level of world 1, the boss dragon:
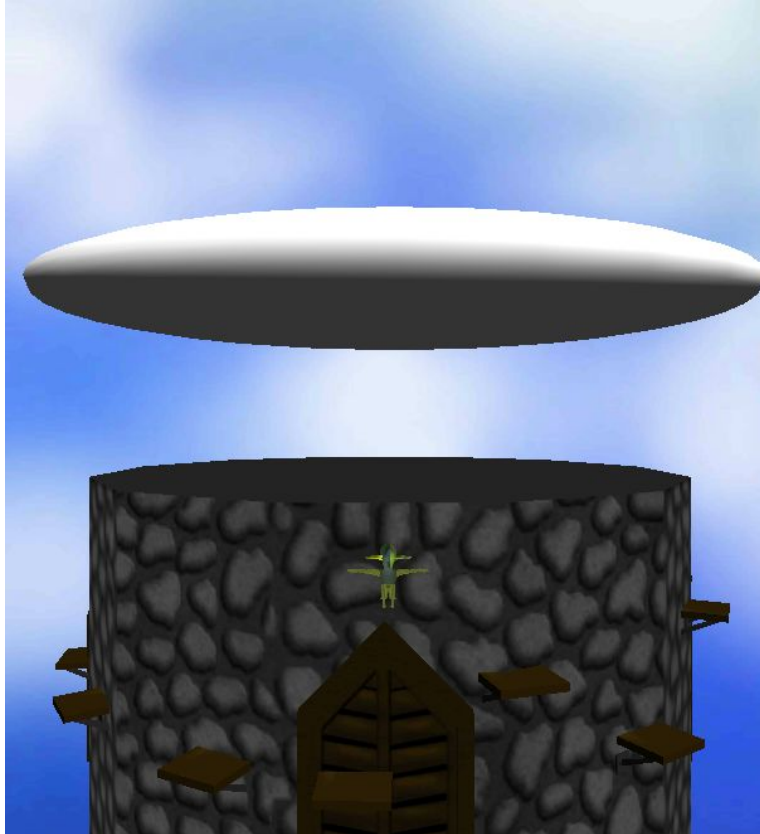
- Sits at the top of the tower at the beginning, and flies into the air to start the battle.
  - Player cannot attack the dragon at this time
- Spits one fireball a time <u>at the player straight down</u>
  - The dragon's head will be lined up on x-axis and z-axis with the player's current position, since it will spawn the fireball.
    - After spawn, the fireball will be rotating with the tower so the player can dodge it.
  - The time interval between each fireball is adjustable in editor
    - Default: 3 seconds
  - The number of fireballs the dragon will spit before landing on the tower is adjustable in editor.
    - Default: 3
  - The dragon will be facing player's direction all the time. (Which means it doesn't rotate with the tower.)
  - The fireball functions as the falling obstacle: it falls directly towards the bottom of the screen, and doesn't collide with platforms
- After 3 fireballs, it rotates randomly to an angle and lands on the top of the tower
  - While on the tower, the dragon rotates with the tower
  - Player will have to jump to where the dragon's head is to attack
  - It's head will stick out on so the player can reach it

- ○ Player can attack the dragon by jumping on the top of the dragon's head
  - ■ The head functions as a platform
- ○ The number of hits it takes to take down the dragon is adjustable in the editor
  - ■ Default: 3 times
  - ■ Each time does more damage than normal lightning strike. The total HP will be consumed by 3 jumping attacks.

- ○ The time the dragon stays at the top of the tower is adjustable in the editor
  - ■ Default: 4 seconds
- ● After the time is up, the dragon goes back to the air, and repeat the spitting fireball action

World 2

In non-boss battle scenes of world 2, besides jumping across platforms, player also needs to avoid flying projectiles / falling obstacles in the level. These obstacles are relatively slow and very sparse, their serve the purpose of changing player's pace and adding real time reflex engagements to increase challenge.

Falling obstacle
- ■ The model differs in each level, but they function in the same way. They fall from the top of the screen straight down and falls directly to the bottom.

If player falls or get hit by projectile/obstacles, he/she fails this level.

Boss 2:

The boss in second world functions exactly the same but with different settings on some parameters, including:
- ● Number of fireballs the boss spit before landing
  - ○ Default: 5 seconds
- ● Interval length between each fireball
  - ○ Default: 1 seconds
- ● Time the dragon stays at the top of the tower
  - ○ Default: 4 seconds
- ● Times player needs to attack the dragon in order to kill it
  - ○ Default: 5 times
- ● How long the dragon spawns coins after killed
  - ○ Default: 10 seconds

World 3

In non-boss battle scenes of world 3, projectiles and obstacles appearance more frequently. Player should store enough coins to purchase the attack ability. With this, player will

be able to blow up the nearest incoming projectiles in the screen. Obstacles in this world take 1 hits to blow up if the player has the lightning spell. When obstacles blow up, they burst into coins and falls slowly onto platforms / off the screen. (See fig. 6)

Figure 6: "Burst" into coin reference (Metal Slug 2)

Boss 3:

The third boss in the game has a different attack pattern compared to the ones in the first 2 worlds. This time it is assumed that the player will already have the lightning spell attack ability when encountering this boss, so the player will be actually "attacking" the dragon this time with lightning spell.

In this level, the dragon:
- Sits at the top of the tower at the beginning, standing at the center of the tower.
- (Skill 1)The dragon will roar, spread the wing and then point the head to the sky and start to launch several fireball into the air rapidly
  - The fireball from the dragon will be a particle emitter just like the coin burst
  - The real obstacle generator will be off the top of the screen
    - The spawn time can be edit in the editor separately from the normal falling obstacle spawner.
      - Default time delay: 2 seconds
  - The obstacles will not be targets for the player.
  - The length of this skill is adjustable in the editor.
    - Default time: 5 seconds
  - There will is a delay between the time the particle stop to emit and the obstacle stop to fall.
    - Default: 3 seconds
- (Skill 2)After this, the dragon start to do the "flamethrower attack" while rotating slowly.
  - The head of the dragon will be be aiming at the edge of the tower while rotating, so the flame can both functionally and visually hurt the player if player runs into it.
  - The time and speed of this attacking state are adjustable in editor
- After this, repeat the skill 1 and then skill 2 till killed.
- Player can attack the dragon with lightning at any time.

World 4

In non-boss battle scenes of world 4, projectiles and obstacles appearance more frequently and they take 2 hits to blow up, and average space between platforms increases. In this level, player needs to use the air dash ability he/she purchased, and combined with attack to get to the top of the levels while exploding obstacles and collecting coins.

Boss 4:

The tower of this battle is special, there will be lava overflowing on the top of the tower, but it's just visual effect until the boss launches a special attack.(See the boss attack pattern description for more info)

The sky will be red, the background will be cloudy and there is lightning effect.

The dragon is lighted up from below.(by the light of lava)

In this battle, the master wizard will join the battle. He will be flying, circling around the tower while attacking the dragon (visually only) with lighting spell.

Here's the dragon's attack pattern:
- At the beginning, unlike previous bosses, the player cannot see the dragon when enter the scene. Player will hear a roar, and then see the dragon swoop down quickly from top of the screen and fiercely land on the tower, then the dragon will spread the wing and roar towards the sky.
    - The camera will shake fiercely as the dragon lands on the tower.
    - Player can attack the dragon as soon as it's in range.
- (Skill 1)The dragon will roar, spread the wing and then point the head to the sky and start to launch several fireball into the air rapidly
    - The fireball from the dragon will be a particle emitter just like the coin burst
    - The real obstacle generator will be off the top of the screen
        - The spawn time can be edit in the editor separately from the normal falling obstacle spawner.
            - Default time delay: 2 seconds
    - The obstacles will not be targets for the player.
    - The length of this skill is adjustable in the editor.
        - Default time: 6 seconds
    - There will is a delay between the time the particle stop to emit and the obstacle stop to fall.
        - Default: 4 seconds
- (Skill 2)After this, the dragon will lift itself up in the air, and start to breath fire continuously towards the center of the tower. The lava texture will be lighted up, and the appointed platform on the tower that touches the lava (the level will be set up manually by the level designer, and such platforms will be a different prefab) will start to glow

- ○ Player will die if jump onto those platforms during this time.
- ○ The time length of this skill is adjustable in the editor.
  - ■ Default: 6 seconds
  - ■ The trigger of stopping the platform from glowing is when the dragon lands back onto the tower, not when the dragon stop breathing fire.
- After this, the dragon will swoop down to the platform, spread the wing, and start launching fireballs again.(Skill 1)
  - ○ The camera will shake fiercely as the dragon lands on the tower.
  - ○ The glowing platforms will stop glowing when the dragon lands.
- The dragon will be repeating this pattern until 25% of its HP.
  - ○ For testing purpose, the this percentage will be adjustable in the editor.
- After 25%, everytime half way while the dragon is performing skill 2 in the air, it will lift its head and start to launch fireball rapidly into the air, while it's in the air. The master wizard will circle to the center of the screen while shouting :"Don't worry my child, I got this"(Voice acted), and use his lightning spell to blow up the coming fireballs.
  - ○ The fireball will be very dense, falling very slowly and visually undodgeable.
  - ○ The platforms will be glowing until the dragon finish this skill and land
  - ○ Mechanically there is no change on playing this part, difficulty remains the same.
  - ○ After the dragon lands, it will perform skill 1 again, and then repeat skill 2 with this extra scene, and it will continue until the dragon is defeated.
  - ○ From the second time the wizard say the lines, it will be changed to "I shall not let you succeed."
- When this dragon is defeated, instead of normal ending coin burst scene, the tower turns into coins and the player start to fall while collecting the coins.
  - ○ The coins will be floating in the air.
  - ○ The camera follows the player as he/she falls.
  - ○ The falling and collecting continues as the outro is being played.
  - ○ The time length of this will be adjustable in the editor.

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Challenge mode goal and rules
- ○ There is no boss battles in challenge mode. The goal is to get as high as possible.
- ○ In endless modes, platform arrangement along with all the rest of level designs are automatically generated.
- ○ The difficulty in challenge mode gradually increases. It begins with no obstacle, projectiles, and the space between platforms are small. As the player goes higher and higher, obstacle and projectiles begin to appear, and they become more and more frequent until reaching the limit, then the space between platforms becomes bigger. There's a limitation on increment of difficulty, once it reaches limit, the difficulty level will stay the same all the time.
- ○ Upgrades are available for challenge mode as well.

- ○ Height is measured by the unit of feet. If the player gets high enough to break the record of top 20 on the leaderboard, they would be asked to put their name in the endless challenge leaderboard.

Economic System / Upgrades

Coin collecting

Player can gain coins through playing in campaign mode and challenge mode.

There are 2 different kinds of coin source:
- ○ Floating coins in the level
- ○ Falling coins from the enemy / chest / boss

Normally the amount of coins player can collect in each level ranges from 1,000 to 3,000 (including level finish bonus and boss bonus)

If player quits in the middle of either mode, the coins he/she collected count. If the player completes a level in campaign mode, he/she will get bonus coins.

With the coins the player get, they can either choose to purchase upgrades, or to deposit them in the bank to generate interests.

Upgrade purchase

There are several different upgrades to purchase, and they work for both play modes.

Upgrades	Description	Cost
Extra life 1x (consumable)	Gives player an extra life to use. Can only have 1 at a time. Mutually exclusive with Lv 2 extra life.	1,000
Extra life 2x (consumable)	Gives player 2 extra lives to use. Can only have 1 at a time. Mutually exclusive with Lv 1 extra life.	1,750
Extra life 3x (consumable)	Gives player 3 extra lives to use. Can only have 1 at a time. Mutually exclusive with Lv 1 extra life.	2,500
Attack Lv1	Permanently gives player the ability to fire at the enemy (obstacles) with lightning. Auto aim, no cool down time.	6,000
Attack Lv2	Lightning attack gains one chain reaction. After the lightning hits the enemy(obstacles), it goes to another one which is nearest to the first enemy	20,000

	(obstacle). If there is only one enemy on the screen, it will not cause chain reaction.	
Attack Lv3	Player will be able to shoot 2 lightning bolts at a time. If there are multiple targets on the screen, the 2 bolts will go to different targets. If it's just one, they will go to the same one and double the damage. This attack will not have chain reaction.	100,000
Attack Lv4	Gains chain reaction to the lightning bolts.	200,000
Attack Lv5	Player will be able to shoot 3 lightning bolts at a time. If there are multiple targets on the screen, the 3 bolts will go to different targets. If it's just one, they will go to the same one and triple the damage. This attack will also **has** chain reaction.	400,000
Air Dash Lvl1	Permanently gives player the ability to do one air dashing per jump	3,000
Air Dash Lvl2	Player can dash further in the air.	12,000
Air Dash Lvl3	Player can dash further in the air.	200,000
New hat	New hat for player to select from	2,500-125,000
New cloth	New cloth for player to select from	5,000-25,000
...	...	...

Customization

On world / level select screen, player can customize their avatar appearance.
There are 2 parts player can customize,
- Hat
- Cloth
- Pet

Each part's color can also be changed, there will be at least 18 colors to chose from for each part.

Initially, player will have access to 1 default sets of hat and cloth for different gender.The tutorial will introduce the player to the customization system, provide them the cost of a set of hat and cloth, and direct the player to purchase a set. They will not be able to use this money to purchase other stuff. If the player choose to skip the tutorial, they will lose this free set. (For more information, see tutorial design document)

Player can also purchase 6 additional new hat/cloths with the coins they earn from playing the game. The purchasable new hat/cloth are relatively expensive.

Upgrades	Description	Cost
New hat	New hat for player to select from	25,000
New cloth	New cloth for player to select from	30,000

In total, there are 16 hats and 16 cloth design for the customization function.

Achievements

Achievement system adds more replayability. In the game, there are several achievement systems:

- (70)[Orange Dragon Beater]The player beats first boss - 0
- (80)[Green Dragon Beater]The player beats the second boss -1
- (90)[Yellow Dragon Beater]The player beast the third boss -2
- (100)[Magic Savior]The player beats the campaign mode - 3
- (40)[Magic Collector]The player deposits more than 10,000 golds in the bank - 4
- (60)[Magic Loaded]The player deposits more than 100,000 golds in the bank - 5
- (70)[Magic Sage]The total amount of gold player has (including what's in the bank) surpasses 200,000 - 6
- (100)[Magic Banker]The total amount of gold player has surpasses 500,000 - 7
- (80)[Magic Fashionista]The player purchases all hat/cloth skins. - 8
- (80)[Magic Master]The player purchases all skills. -9
- (50)[Magic Challenger] Player gets higher than 300 fts in endless mode - 10
- (80)[I'm so~~~ good] Player gets higher than 700 fts in endless mode - 11
- (100)[IT'S OVER 9000!!!]Player gets higher than 9000 fts in endless mode - 12

Leaderboard

There are 2 leaderboards in the game:

- Leaderboard of Fortunemagic
  - The rank is based on the coins in the bank that player collected in the level and stored into the bank, interest generated will not count.
  - When storing golds, the ones collected in the levels will always get stored first, compared to the interest generated from the bank that the player withdrew.

- Leaderboard of Courage
    - Leaderboard of Courage shows top 20 who made the record of highest point in challenge mode.

The data of both leaderboards are stored in the server and are accessible for players at anytime.

Banking system / Serious Content
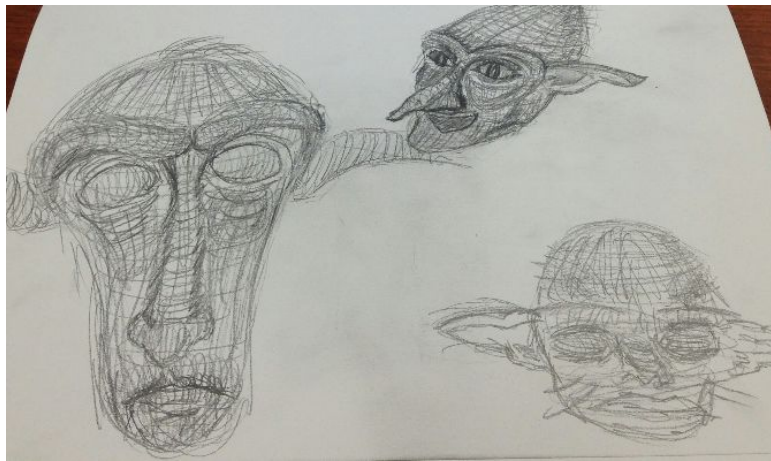
Banking System

Figure 7: Bank goblin concept arts

When the player deposits money to the bank, the bank will generate heavy interest for the player. The more the player deposits, the higher the interest is. Interest rate in the game bank will be much more higher than reality for the purpose of gameplay.

When player deposits coins in the bank, if the amount if high enough to break the record of top 20, they can put their name in the bank deposit leaderboard. If the player withdraws an amount of money which will lead to drop off on the leaderboard, the system will remind him/her.

After the player deposits gold into the bank, the interest rate resets according to how much is stored in it. And the longer player wait before withdrawing the golds, the higher the interest goes as well.

Interest	Rate
Deposit less than 2,000 golds	2% per 2 hours
Deposit more than 2,000 less than 5,000 golds	3% per 2 hours

More than 5,000 less than 10,000 golds	4.5% per 2 hours
More than 10000 less than 20,000	6% per 2 hours
More than 20,000	8% per 2 hours

- The interest grows regardless of if the game is open or not
- The time cycle is 2 hours. 2 hours after the player deposit the money, the bank generates interest based on the amount deposited, and the interest will be counted as base amount for next time when the bank generates interest, which will be 2 hours after.
- There will be a maximum limitation on how much interest the bank can generate: 10,000,000. If the interest reaches this number, the bank will stop generating interest, but the player can still deposit coins collected from the levels into the bank.
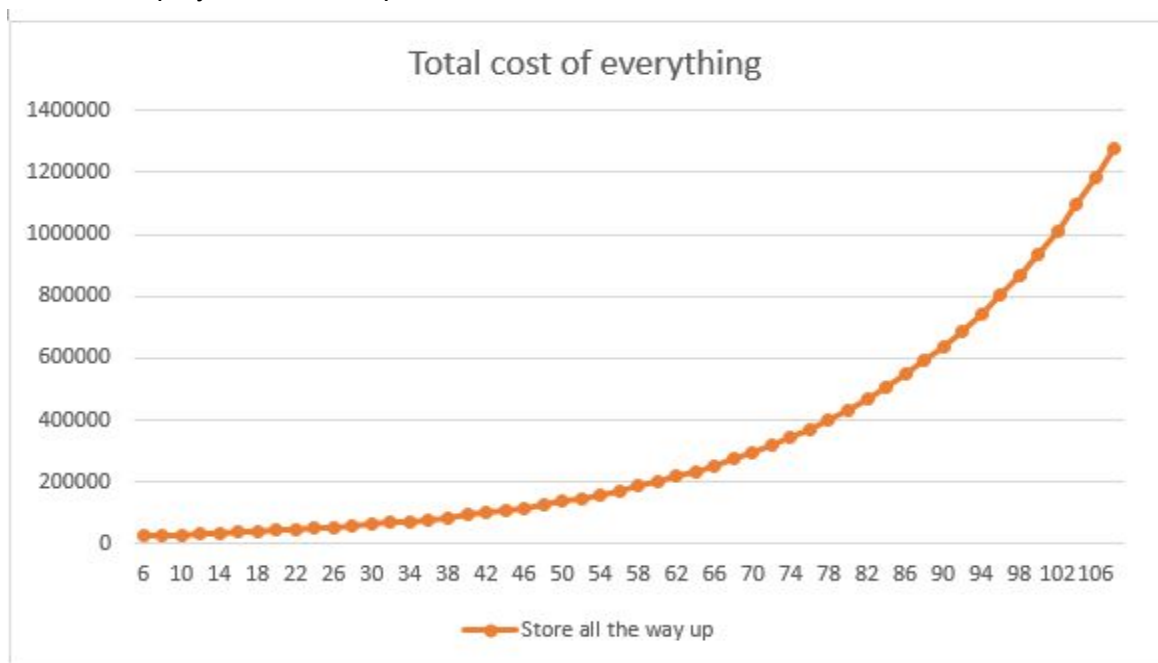
With this initial data setup, according to calculation, the best solution of the game would be: if the player stores 20,000 into the bank, which is the limitation on maximum interest rate, it will cost 55 cycles(108 hours) to get to 1.2 million, which would be the total amount of money they will need to purchase everything in the game.

On the bank menu, there is a "interest rate bar" showing player where they are on the interest rate based on the amount of golds they deposit. And also the player can see their rank of how much money they deposited compared to others.

Saving Encouragements

At the end of each level, the game will pop up a reminder informing the player the benefits of depositing money into the bank.

This will be illustrated via a dialogue box of someone reminding the player to do so.

1. Great job! Remember to deposit your coins in the bank so you can afford your magical supplies.
2. Well done! A smart wizard/sorceress always saves their gold.
3. Good work! You're learning fast. Save up your gold if there is something you need.
4. Impressive! Remember to spend gold on things you need over things you want.
5. Wonderful! Don't be like a Splurg Dragon, deposit you gold!
6. Way to go! It's good to know the differences between needs and wants.
7. Marvelous! Did you know the more coins you have in the bank the more you'll make from interest?
8. Outstanding! You're on your way to becoming a skilled wizard/sorceress and a great saver.
9. Fantastic! Teach these Splurg Dragons a thing or two about saving!
10. Nice going! The more you save the stronger you'll become.
11. I knew you could do it! You'll be a master in no time. Don't forget to deposit your coins.
12. Excellent! You're almost a master saver and a master wizard/sorceress!

Story / Dialogue

Concept: Dragons are stealing magic from the world. The coins in-game are "magic coins" which are basically a representation of an amount of magic wrapped up in a coin. Dragons are hoarding the magic coins and storing them in treasure chests in the castle towers. When you get to the top of a tower, you open the chest and release magic back into the world.

The game tells a linear story. The player plays a apprentice wizard learning from a master wizard, and the adventure begins in one of the libraries in the wizard's castle.

The story is illustrated with cut scenes in the game. There is a cut scene before each world begins, and one ending cut scene at the end of the last level.

At the end of last level in each world, the player will be battling a dragon. After the player slays the dragon, the master wizard will appear and do the narrative to push plot going.

World 1 Intro
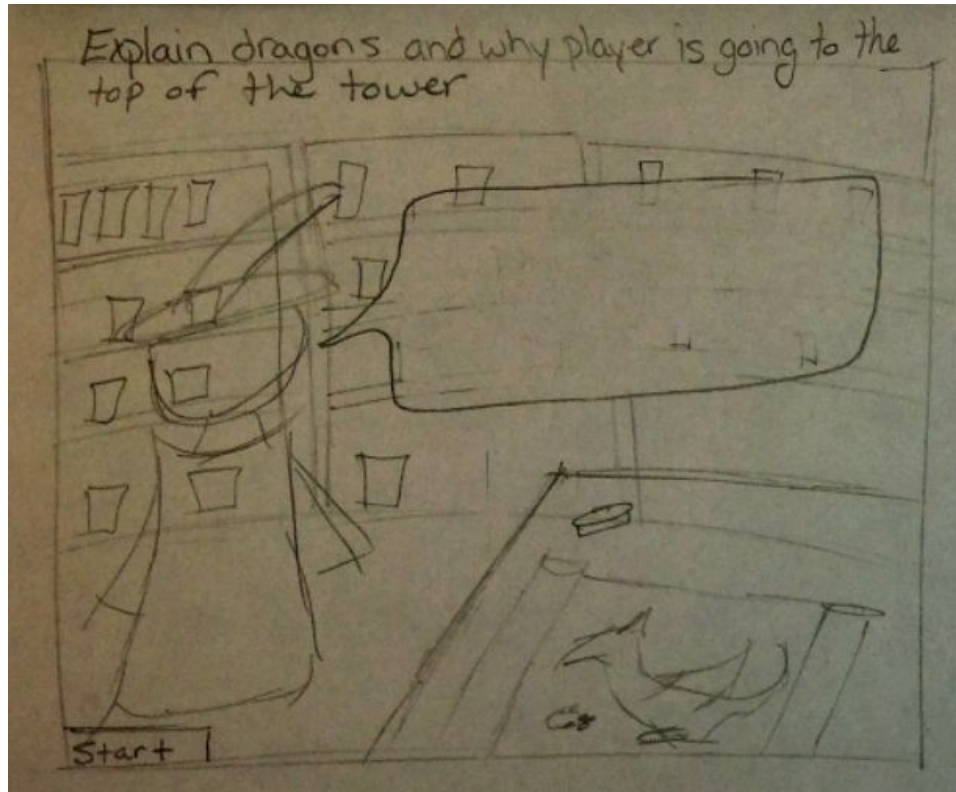
[Fade in]

The story begins in the library of the master wizard. The camera zooms in at the books in the background at the beginning, and zooms out while panning to the master wizard, who's sitting behind the desk holding a book while talking to the player.

MASTER WIZARD

Today is the day my young apprentice. You've studied hard, now it's the time to test your skills. I've just gotten word that dragons have been stealing magic throughout the world. As you know we get our powers through magic coins. It's up to us to stop these dragons and release magic back into the kingdom. They've been hoarding the magic coins on top of towers. You'll need to make your way up each tower and release the magic. Lets save magic!

[Fade out].

End of World 1 / World 2 Intro
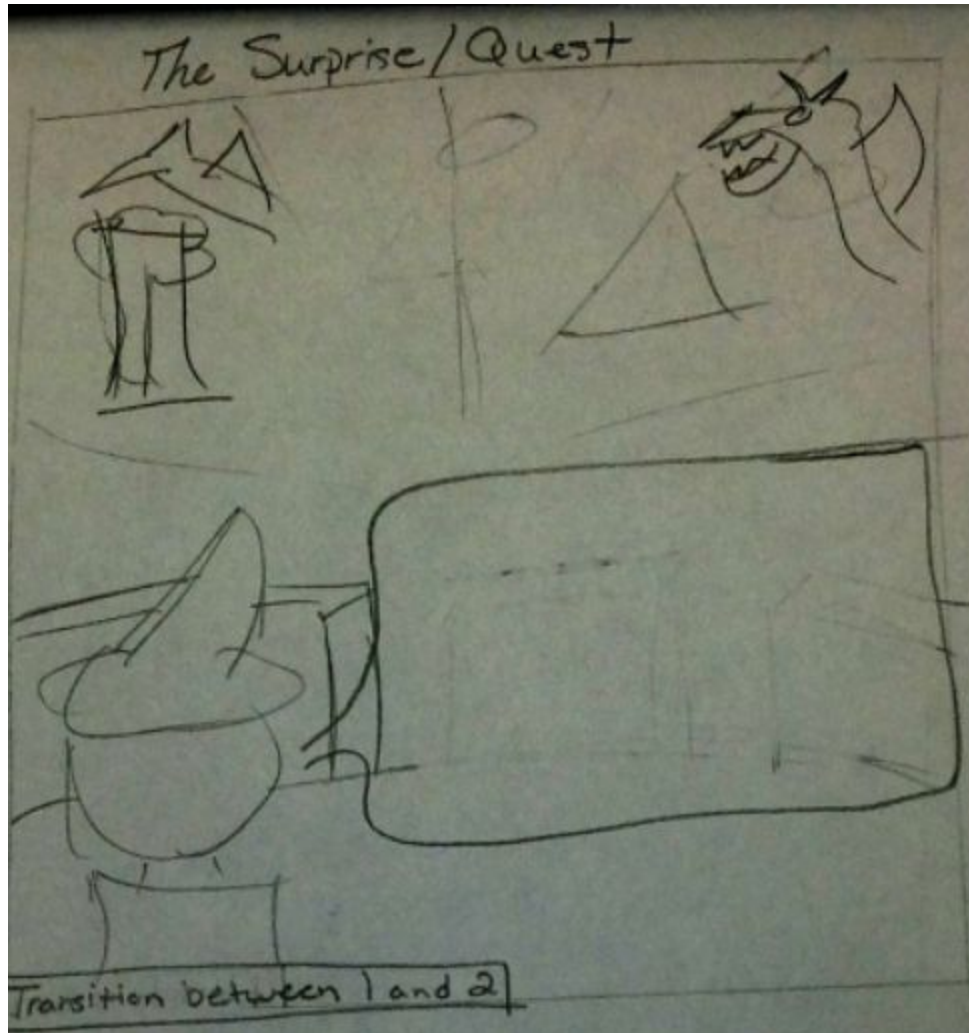
[Fade in]

At the top of the tower, the camera is pointing at the horizon. After player slays the dragon, the master wizard enters the scene.

MASTER WIZARD

  Dragons wouldn't be so grumpy if they would learn how to save their own magic coins instead of stealing them from others. Hmm... this isn't good...I'm sensing more dragons. We must continue on and save as many magic coins as possible. Don't forget to store your magic coins in the bank before continuing on with your quest.

[Fade out]

End of World 2 / World 3 Intro
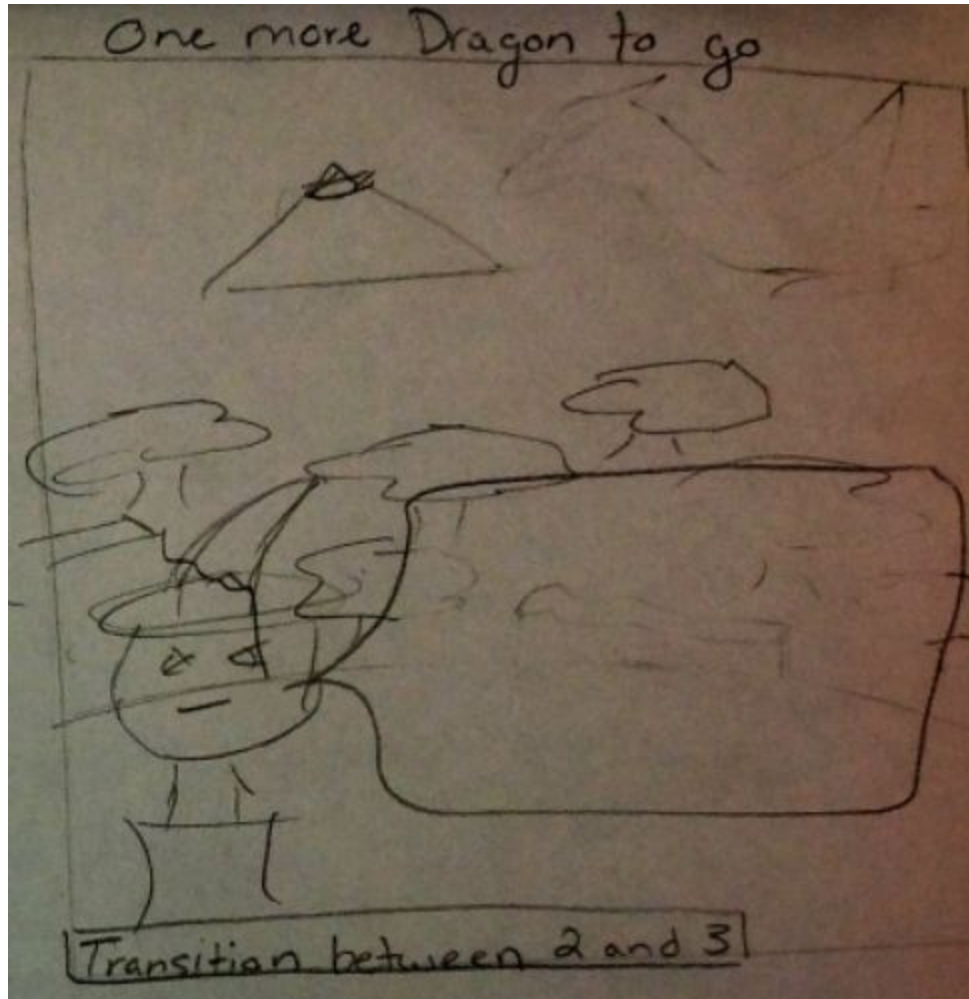
[Fade in]
On top of the Ruined forest Tower, player can see the desert tower at the right side of the screen. The master wizard appears from the left side, and starts to talk.

<div align="center">MASTER WIZARD</div>

  Good job, my apprentice. You have proven your ability once again. The final dragon will be found in a very dangerous place. You will need to know the lightning spell if you haven't learned it yet. I have the spell book, but I'm not going to give it away for free.(laugh) You can purchase it if you have enough magic coins, otherwise I suggest you collect some more coins and deposit them in the bank before continuing. A smart wizard always saves their magic coins!
[Fade out]

End of World 3 / World 4 Intro

[Fade in]
After the player slays the Blood Dragon, the master shows up, and begin to talk to the player.
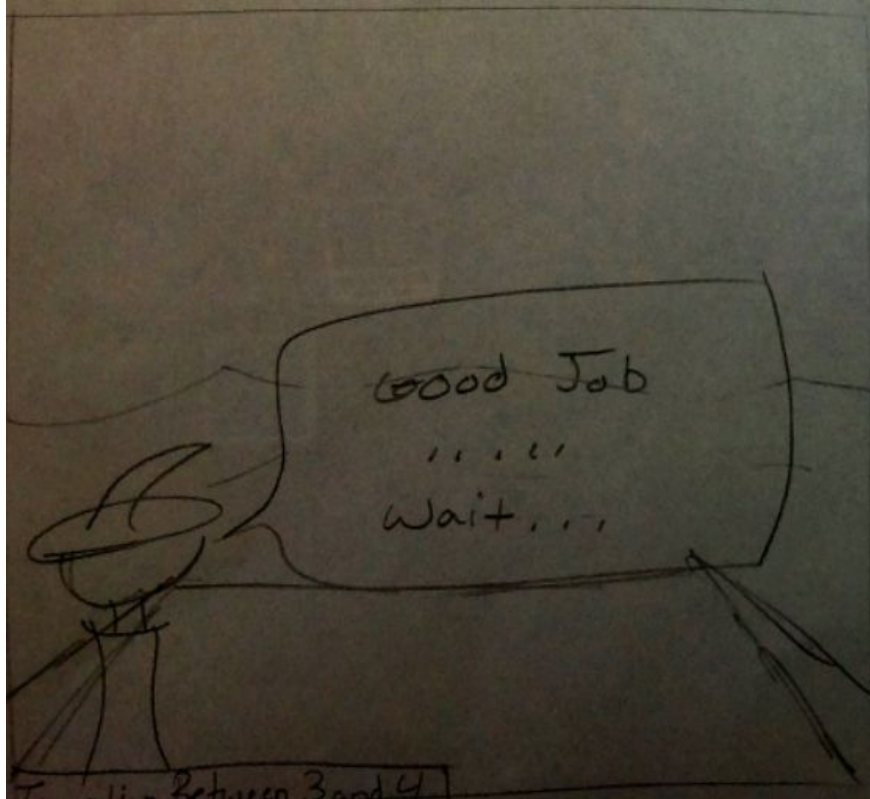
MASTER WIZARD
Excellent job! To be honest I didn't expect you to slay this one all by yourself, but you did it! Let's go home...wait, something's not right....
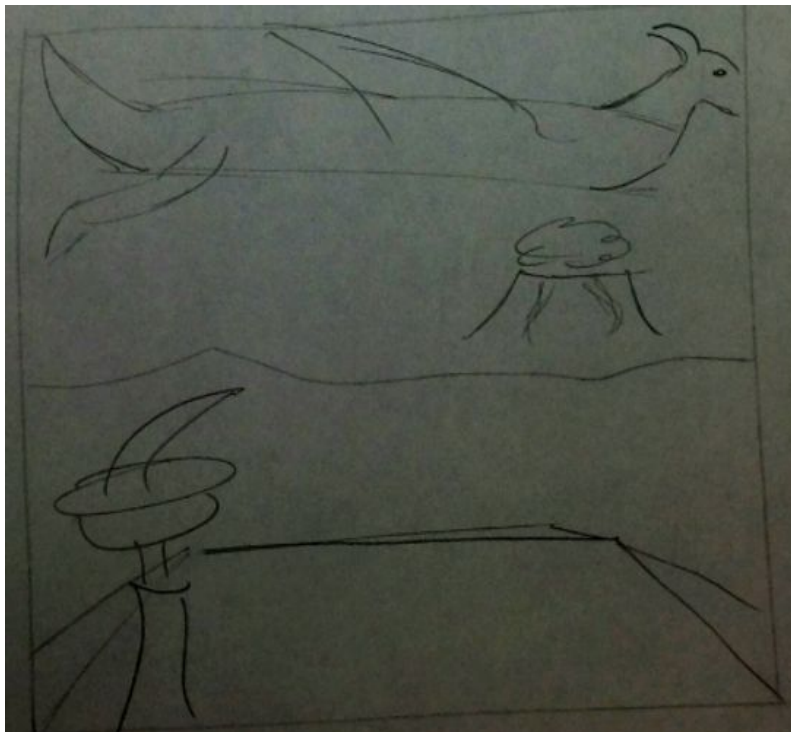
The sound of dragon rawr comes up, and the wizard look at the sky, a dark dragon flies by.

<div align="center">

MASTER WIZARD

That is impossible! How could it be!! There is still another dragon! This one looks to have stolen more magic than any of the other dragons. We must stop him!

</div>
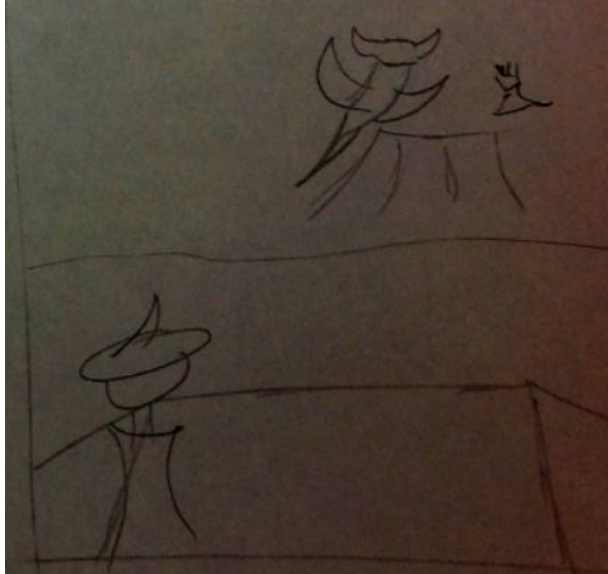
The dragon flies towards the volcano in the background.
[Fade out]

End of the game

[Fade in]
The master wizard stands on the mountain (volcano) tower, the camera points at him and the sky behind him.The dark cloud on the sky disperses, and the master wizard's cape is lifted up by the wind.

<div align="center">MASTER WIZARD</div>

(Laughter) You did it!!! You mastered my lessons on collecting, saving, and spending magic at appropriate times! As a result, you have defeated the dragons and restored magic to the world!. It gives me great pride to bestow upon you the title of Master Wizard! It is now up to you to take the lessons you have learned and teach them to others.

Now that you have conquered the magical world, what do you say about trying to conquer the financial world? Try to see if you can be the top wizard in the world by depositing the most coins.
[Fade out]
[Campaign mode story ends]

Interface

Camera

Camera View: Side view perspective (See fig.8)

Figure 8: Camera angle reference (New Super Mario Bros. U)

Camera movement:

- Vertically, camera follows the avatar only when it's height passes 50% of the screen. When the player falls down, the camera doesn't follow.
- In boss battles, the camera will not follow the player vertically.
- Horizontally, the camera follows the player to the direction the player is going and is positioned 5% ahead of the forward direction of the avatar, but doesn't go back until the player runs out of the leeway zone, which will be 20% of the screen centered.

Menu

Following are the menu design concept pictures, this is just for layout reference.

Main Menu:
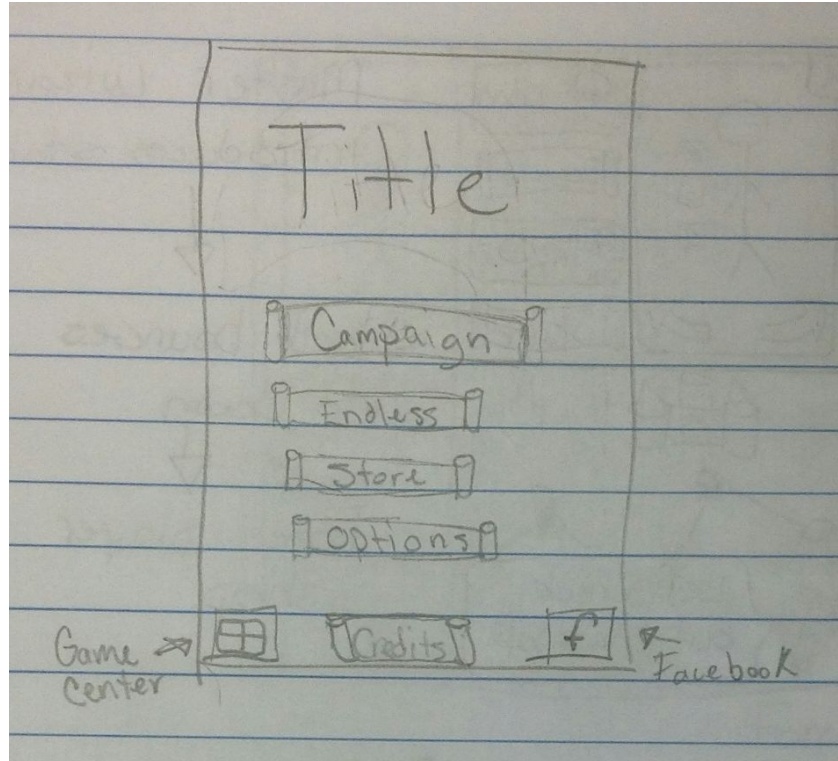
Main menu will contain totally 7 buttons, including:
- Campaign
- Endless
- Store
- Options
- Game Center
- Facebook
- Credits

In the first time player plays the game, when he/she enters either play mode, the system will pop up dialogue box asking the player to select from the 2 avatars: Wizard and sorceress. Player can switch avatar in the option menu. Upgrades and customization parts player purchases in the game apply to both character.
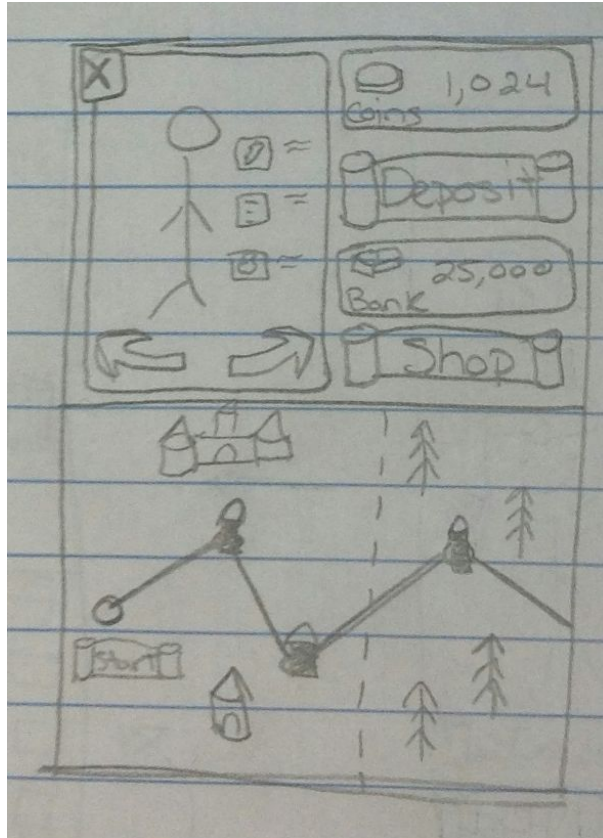
Campaign Menu:

Figure: Concept draft for campaign mode level select menu layout

- As most of the menus in the game, campaign menu is divided to 2 parts: Status part on the top and and level select part on the bottom.
- Status part shows player avatar preview, status information, current coin amount and bank deposit amount, deposit button, shop button and leaderboard button.
- Level select part includes unlocked levels which are shown as markers on the world map. Player can scroll across the map horizontally to access every unlocked map in the game. After selecting one of the levels, player can start playing by tapping the start button.
- There are 2 designs for the status half, the first one shows player status information within the preview box, the second one shows all information on the right side of the status half.
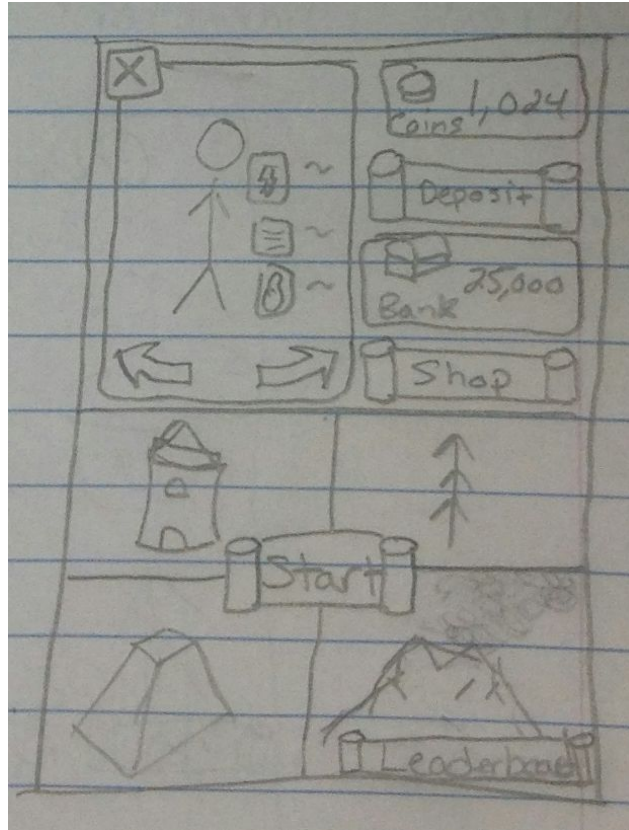
Endless Mode

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Figure: Concept draft for endless mode map select menu layout

- Endless mode menu is also divided to 2 parts, top part is the same status part, bottom is the world map select part.
- Map select part offers 4 map for player to choose from, they are exactly the same except for appearance. The background of these 4 maps are the same from the four worlds in campaign mode.
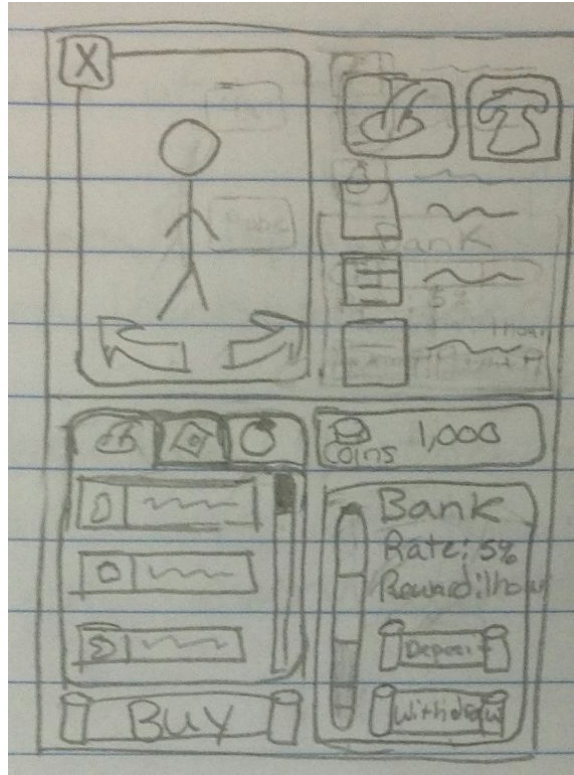
Figure: Concept draft for shop mode map select menu layout

- Shop menu includes the bank system.
- The top half is a little different from the ones in campaign and endless menu.
- The banking system shows player a "interest rate bar", informing the player about the interest rate of different amount of golds stored in the bank and the player's current interest rate. Besides the basic information of player's gold, it also tells the player how long till next interest cycle comes, along with the coming interest amount.
- Player can also withdraw money from the bank in here.
- At the bottom part, player can purchase upgrades. The background of the bottom part is a goblin shop/bank, and a goblin merchant stands at the right side of the screen.

Leaderboard:

- Leaderboards are shown in the game center menu
  - If game center doesn't work out for 2 leaderboards, we will make our own in the game.
- The height leaderboard shows the player the ranking of player getting the highest position in endless mode. It also shows the top player's avatar with name at the side.
- The wealth leadearboard shows the player rankings of whoever deposits the highest amount of golds in the bank.

In-game UI

Figure: Final Design of In-game UI

- As shown above, in order to provide as less distraction as possible, the in-game ui layout is relatively simple. It shows the pause button, ascension potion button, player's coins, height, and lives left over.
- The control area of the screen is sliced into to parts for the 2 commands: attack and dash.
  - These areas are hinted with half transparent buttons on each side of the screen.

Intro/Outro

All intros stay on screen for 2 seconds.
All outros say on screen until player tab a button.

Intro for campaign mode:
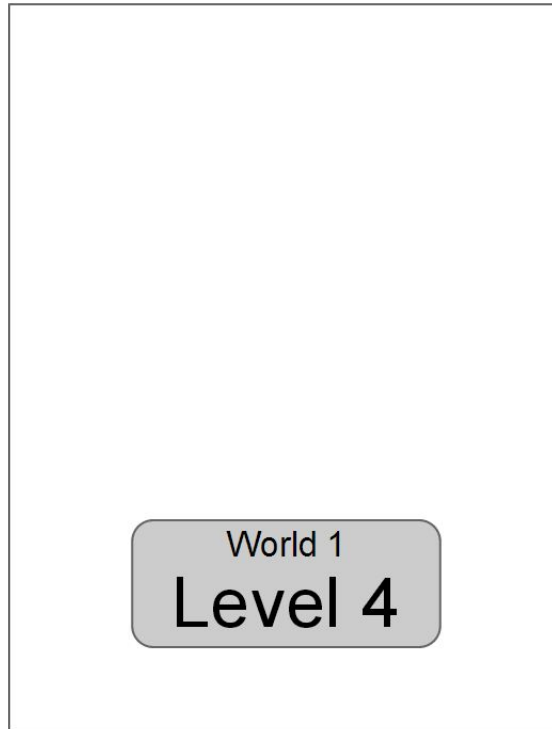
Intro of the game in each level is very simple, as shown in the picture, a tag showing world number and level number flies quickly into the scene from left, stay at the center and then flies off the screen from right.
- Level name font needs to be bigger than world name
- The tag appears at the center bottom of the screen just above height info
- Color used in this picture is not for reference, only layout is.

Outro for campaign mode:
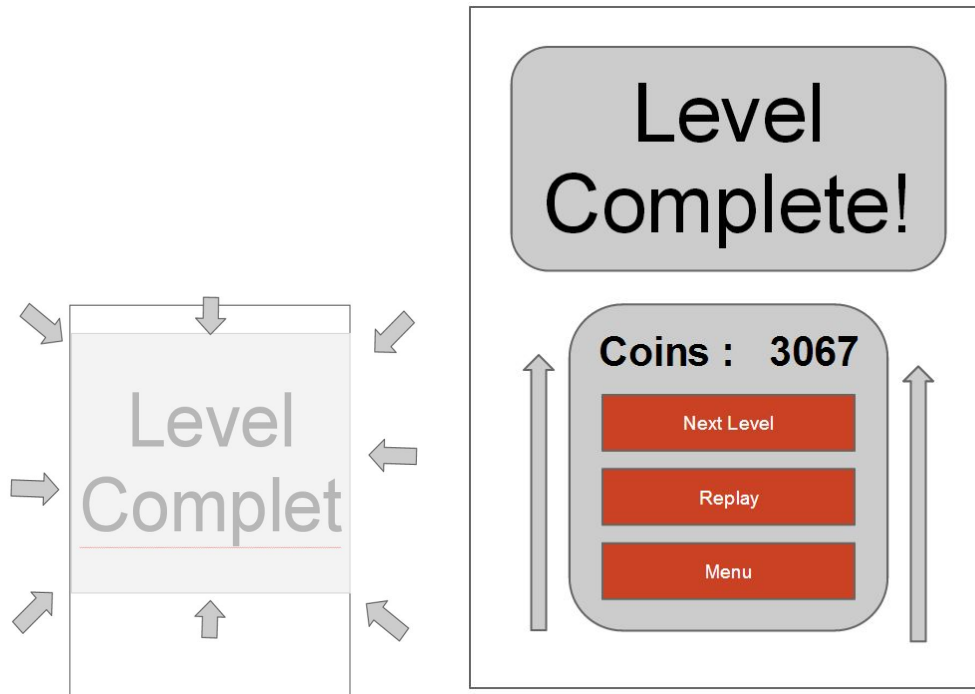
The outro shows player the coins he collected in this level, and shows 3 buttons, next level, replay, and menu button, which takes player back to level select menu.

- The top tag saying level complete centers in from transparent state to what's shown in the picture on the right.
- Then the panel on the bottom slides in from bottom
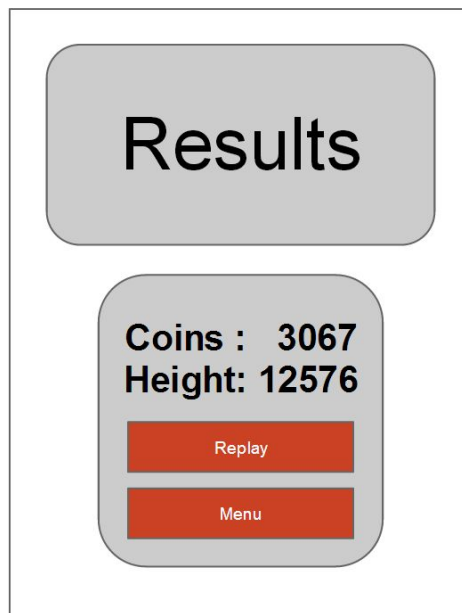- Color used in this picture is not for reference, only layout is.

Fail outro for campaign mode::

Intro for campaign mode:

GO!

Outro for endless mode:

Results

Coins :   3067
Height: 12576

Replay

Menu
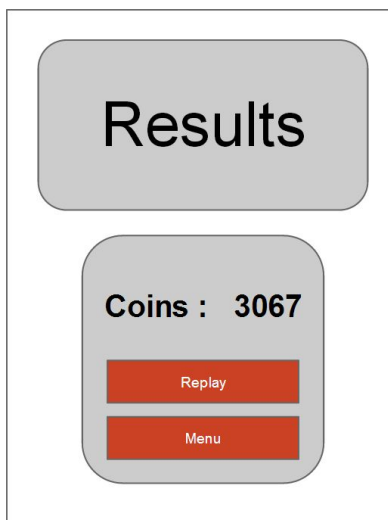
This shows up when player fails. If the player break into the leaderboard, after 1 second the result comes out, an extra window pops up asking player to input the name.

Congratulations! You have made it to the leaderboard!

Height: 12375
Rank: 7

Leave your name:

OK

World/Art

General features:

- 3D
- Lighthearted
- Cartoonish
- Stylish
- With certain detail

Action List for animation:

Avatar:

- Jump (1)
- Attack (2)
- Air Dash (float)(3)
- Get hurt by touching enemy (4)
- Ascending (5)

Dragon:

- (On tower)Spread wing and roar to the sky(1)
- (On tower)Shoot firerain up to the sky(2)
- (On tower)Flamethrower attack straight down(3)
  - While moving around on the edge of the tower with its claw(4)
- (In the air)Shoot fireball down (5)
  - While flapping the wing(6)
- (In the air)Breath fire to the center of the tower(similar to flamethrower attack but in the air and aim at the center of the tower) (3)
  - While flapping the wing (6)
  - Flamethrower animation may work
- (In the air)Shoot firerain up to the sky (2)
  - The same animation used for the one on the tower may work
  - While flapping the wing (6)
- Lift into the air (7)
- Land onto tower from the air (8)
- Fiercely land animation (Final boss) (9)
  - Will be used in two scenarios: Opening for the final boss battle(come from top of the screen), and every time the final boss lands.
- Death(10)

Master:

- Floating (1)

- Attacking (2)
  - While floating (1)
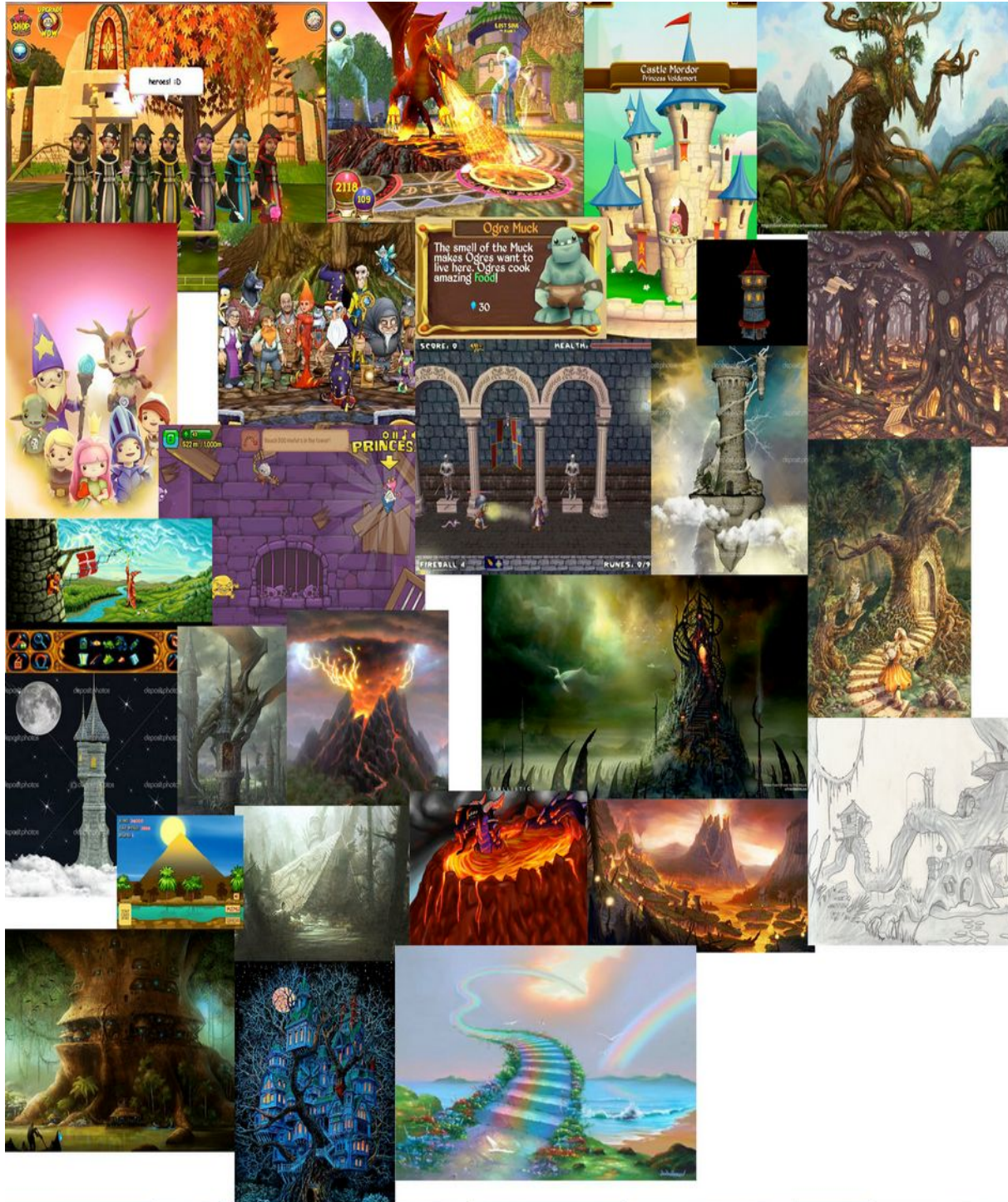
Style references

Figure : Character design reference (Wizard 101)

Figure: Mood board for art direction