1. **Project Proposal**

**1.1 Game Introduction**

In my project, I will design a 2D game with a man as the main character. During the game, he will be walking on a road. Here I classify the components in the game to better show what will happen in the game.

* Background

A frog kidnaps the man’s wife. So he will go through the game to save her. If he wins, his wife will show up at the end.

* Scores

There are many fruits along the way and he should eat them to add scores.

* Weapon

He is capable of using bullets to kill the enemies otherwise he will die.

* Enemy
* Small blue slime

A blue slime will walk on the platforms, which he needs to go through.

* Rolling rocks

There might be some slopes on the way not always flat road. On the slope, there will be some rolling rocks so he should also avoid them.

* Monkeys

Monkeys are main enemies on the way. He can use bullets to kill them. Some stronger aliens will like killers running after the man.

* Snails

The bullets can’t kill snails. Snails will be moving back and forth between two pillars. If the man jumps onto the snails, the snail will put its head back to shell and its shell remains there. If the man touches the shell again, the shell will be rolling back and forth.

* Octopus

Octopus will swing between the canvas boundaries vertically.

* Barrier

Some barriers will show on the way and he needs to jump over them.

* Frog

The frog is like big boss at the end. He will jump around the man and avoid the bullets from the man. If the frog dies first, then the player wins.

* Barriers
* Moving Platforms

There are many platforms in the game. Some platforms are moving back and forth or up and down. The man should jump on the platform so that he could move forward.

* Game Result

At the end, the total energy that the man has earned and time he has used will take into account. There will also be a high score board for players.

* User experience

Before the game starts, players can choose two modes. The classic one is normal. In the free mode, the players won’t die. Also there will be instructions. During the game, players can always restart and pause. At the end the results will be displayed and also the high scores. The buttons can be controlled by mouse pressing and key pressing. When mouse is hovering over it, it will become larger as emphasis.

**1.2 Technologies**

I will use pygame in the code and Tiled to edit the pictures.

* 1. **Project Plan**

|  |  |
| --- | --- |
| Nov 17 | Make code cleaner. Add walking snails. |
| Nov 18 | Make moving background works. |
| Nov 21-23 | Add more elements. At least fruits, floating platforms, rolling snail shells and rolling rocks. |
| Nov 24-30 | Add all scenarios and elements including sound. |
| Dec 1-5 | Polish and finish the demo. |

1. **Competitive Analysis**

**2.1 Super Doge**

* Advantages:
* Several well-designed screens.
* Last boss is cool. I will have some killers like the boss, which can come after the main character.
* When the main character is dead, the scenario is good.
* The music for dog jump is interesting.
* Disadvantages:
* The background music is not exciting.
* The speed of game progress is a bit slow.
* The background picture doesn’t change.
* The video doesn’t show how the dog can kill the enemies.
* Link: <http://www.youtube.com/watch?v=EH9eBShPnEU&feature=youtu.be>

**2.2 Roller Coaster**

* Advantages:
* Well-designed interfaces with pretty characters and background.
* Disadvantages:
* The design of whole game is a bit monotonous. Many game levels don’t improve the quality.
* Link: <http://www.youtube.com/watch?v=wVsQLIxv3RM&feature=youtu.be>

**2.3 Feeding Dennis**

* Disadvantages:
* Changing gesture of the main character is stiff.
* When too many components appear, the situation is messy.
* The text font is not favorable
* Link: <https://www.youtube.com/watch?v=ekIB6hg2kaQ&feature=youtu.be>

**2.4 Lardquest - Donovan Powers Term Project**

* Advantages:
* Very clear game logic.
* The bullet animation is excellent which I shall definitely consider more over.
* Different game level is meaningful and the background fits well.
* Link: <https://www.youtube.com/watch?v=HLl2lnUkVJ0&feature=youtu.be>

**2.5 Jason Dynes**

* Advantages:
* The bullets move on different obits. That’s awesome. I can design different types of bullets in mygame.
* The diversity in the game is also important.
* The directory at the beginning to show the level section is clear.
* Link: <http://www.youtube.com/watch?v=koTBrCNEhH8>