

Game Concept

Game Title:

Dunk A Prof.

Summary:

Dunk-A-Prof is a computer game simulating a festival carnival dunking game. Dunk victims appear on a platform over a liquid-filled tank. Victims are to be Deans, and Trustees; each with different models. Dunk victims sink into the liquid and then float back up to the surface. Trustees and Deans are dunked in blue water and emerge safely, whereas Trustees are in green acid and emerge skeletal.

The player's model throws a ball to strike a target, thereby dunking Trustees staff. The game is played from a side view with a two-dimensional game space. All player control is exercised in the throwing of the ball; once released it follows a path consistent with Newtonian physics.

Purpose:

This is a stress-reliever game of target audience being College Students.

Theme:

Cartoonish College Setting.

Dunk-able characters:

-Professor:

College Professor.

-Dean:

College Dean.

-Trutee:

falls into an acid tank and shreds the skin off.

Winning objective:

All dunk-able characters indefinitely re-spawn once they are dunked. Players strive to dunk as many dunk-able characters as possible during the limited time in order to score as many points as possible.

Commented [U1]: I think the winning objective should be to dunk all three characters. The characters should not respawn.

Technical Details

Programming Language:

Java SE 8.

Machine Target (game platform?):

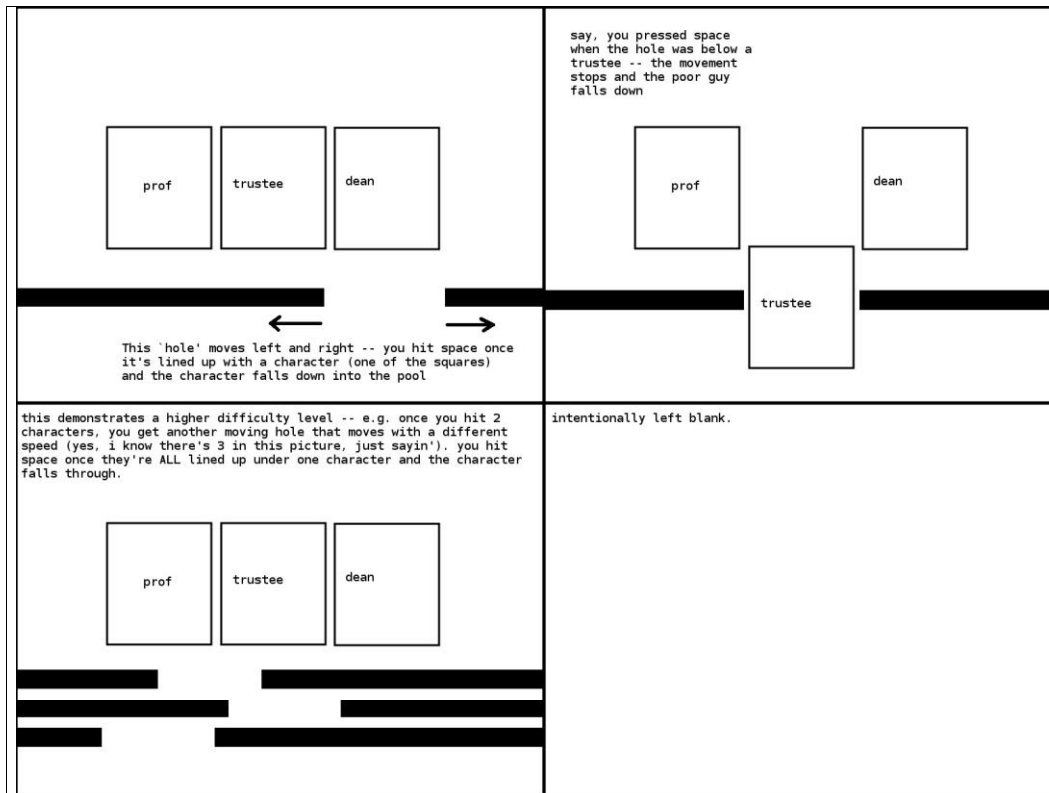
Standard Java desktop application using JFrame (are there non-desktop platforms that uses JFrame?).

Gui Size (game window size?):

800 x 600 pixels

Game Mechanics

-Dunk Mechanics- the sliding holes:



**Scoring:** Every character has a bar that keeps track of how close they are to falling. The bar can go up or down. If the characters target is hit the bar decreases. If the target passes the characters target n times the bar increases by some percentage. If the bar reaches 0% the character gets dunked.

**Buttons (default controls?):**

Space bar is used to register hits against the target  
Up and down arrows are used to select the game mode (easy, medium, hard).

## Graphics & Sounds

**Scenes:**

- Intro/Splash Screen (title and mode selection)
- Main (where the game is played)
- College Campus background (maybe with college students surrounding the Dunk victims)
- Dunks (each character gets a special dunking scene)

**Sounds:**

- Theme song.
- Boos when user misses a characters target n times.
- Cheers when character is dunked

- A bleep when the user scores.
- Professor taunts when user misses n times: “you’re a d+ player at best” (or something else)
- Dean taunts when user misses n times: “you’ll never get into my graduate program” (or something else)
- Trustee taunts when user misses n times: “with students like you I’m clearly wasting my money” (or something)
- Professor pleads when user scores against them: “don’t worry I’m grading from the curve” (or something)
- Dean pleads when user scores against them: “ Please, a recommendation from me is like gold in your field” (or...)
- Trustee pleads when user scores against them: “Stop, Don’t you know who I am”.

### Implementation Philosophy

(put programming guidelines for backbones)

### Milestones

#### Prototype 1

~~-JFrame window~~  
~~-Working Slider~~  
~~-Can load images~~  
~~-Working score keeper~~

#### Prototype 2

-Show some reaction from the dunk-able characters  
 -Widen the target range for the slider  
 -Add any background image  
 -Show that sound effects work  
 -Add images for dunk-able characters  
 -?Make the slider loop-able instead of sliding left and right?

#### Alpha

-Show that dunk condition works, and dunkable characters will fall into the tank  
 -Put proper images:  
   - background (college background)  
   - dunk-able characters  
   - tanks (slightly bigger than the dunk victims)  
 -Put proper sound effects:  
   - background music  
   - hit (clink sound) / miss (thud thud sound)  
   - Liquid contact sounds:  
     - water: (splash sound)  
     - acid: (sizzling sound)  
   - hit (claps or cheers)/miss (boos)

#### Beta

-Pause feature  
 -Add ending condition (time/lives/all down)

#### Stable Release

-Full working game that can be shipped anytime

**Addition Packs:** (these features are to be implemented only after a workable game is in place).

**-How to Lose: (to be determined)**

- Life based:** A player start with limited number of lives. Once the player runs out of lives, it's game over.
- Time based:** If any characters health bar remains at 100% for n passes of the target the user loses.
  - Duration:** every game (Round? Turn? Play-through?) will last for about 1 to 2 minutes.
- All dunk-able characters down:** The game is finished once all characters are down.

-**Score Table:** announcing the top 10 high score players.

-**Game tutorial:** called "Blackboard" appearing on the start screen.

-**Game Difficulty Modes:** Easy, Medium and Hard.

**-Slider based:**

- Multiple sliders:** that players have to align correctly for a dunk-able character to fall.
- Slower/Faster Sliders:** which will make it easier/harder for players to miss the target.
- Wider/Narrower Sliders/Target Range:** Either make the slider or target wider or narrower to determine how precise the slider and the target have to align.

**-Target shooting based:**

- Multiple targets:** that players have to align correctly for a dunk-able character to fall.
- Slower/Faster Sliders:** which will make it easier/harder for players to miss the target.
- Wind factor:** the tossable object will deviate a small amount depending on the wind factor.

-**Different objects to be thrown:** tennis ball, bowling ball, darts, etc.

-**Point scoring system:** +1prof, +1dean, +3trustee, -2miss. (To be determined)

**-Dunk condition:**

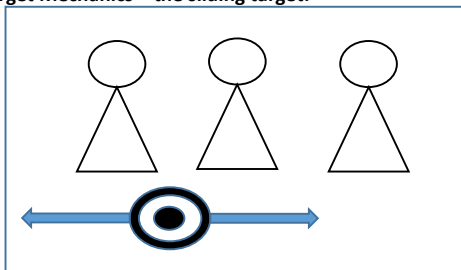
Each character will have a different "health bar" associated with it that makes it more or less difficult to dunk them. Say the professor has a health level of 10, the dean has a health level of 15, and the trustee has a health level of 20. The level of graphics related to dunked character should be correspondingly rewarding.

-**Dunk-able characters reactions:** Are triggered

**-Missing near:**

- Professor:** "I will fail you"
- Dean:** "I will expel you"
- Trustee:** "I will close down your College"

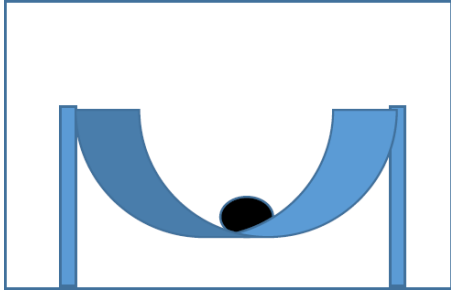
**-Targeting Mechanics – the sliding target:**



As shown in the picture above, there is a single target that slides to the left and right. If the target is hit while it is under one of the dunk-able characters, the character above the target will fall. If the target is hit when it is between two dunk-able characters, the two characters between the target will fall.

**-Shooting Mechanics - the slingshot model:**

**Commented [U2]:** Instead of the character falling if the target is hit the potential for the character falling increases. Like chopping a tree with an ax, it takes several hits to make the tree fall.



It works like Angry Birds but in first person front view. The amount of force that the object will be thrown will depend on how far back the slingshot is pulled. The slingshot will be pulled sideways to aim and shot towards the opposite side that is being pulled.

**Game References:** These are some flash games of the same game concept that we might draw inspiration and reference material from.

<http://boomansion.net/media/flash2/games/dunktank.php>

[http://www.y8.com/games/Da\\_Dunk\\_Tank\\_Dudes](http://www.y8.com/games/Da_Dunk_Tank_Dudes)

<https://www.turkeyhill.com/fun/dunk-tank-game/dunk-tank-game.aspx>