

Game Concept

Game Title:

Dunk A Prof.

Summary:

Dunk-A-Prof is a computer game simulating a festival carnival dunking game. 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.

Dunk victims appear on a platform over a liquid-filled tank, with a target overhead. 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.

Theme:

Cartoonish college setting.

Dunk-able characters:

- Professor:** College Professor.
- Dean:** College Dean.
- Trutee:** falls into an acid tank and shreds the skin off.

Game duration:

every game (Round? Turn? Play-through?) will last for about 1 to 2 minutes. (needs testing)

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]: Game ends when scoring determines that the user has failed to dunk a character.

Commented [U2]: 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?):

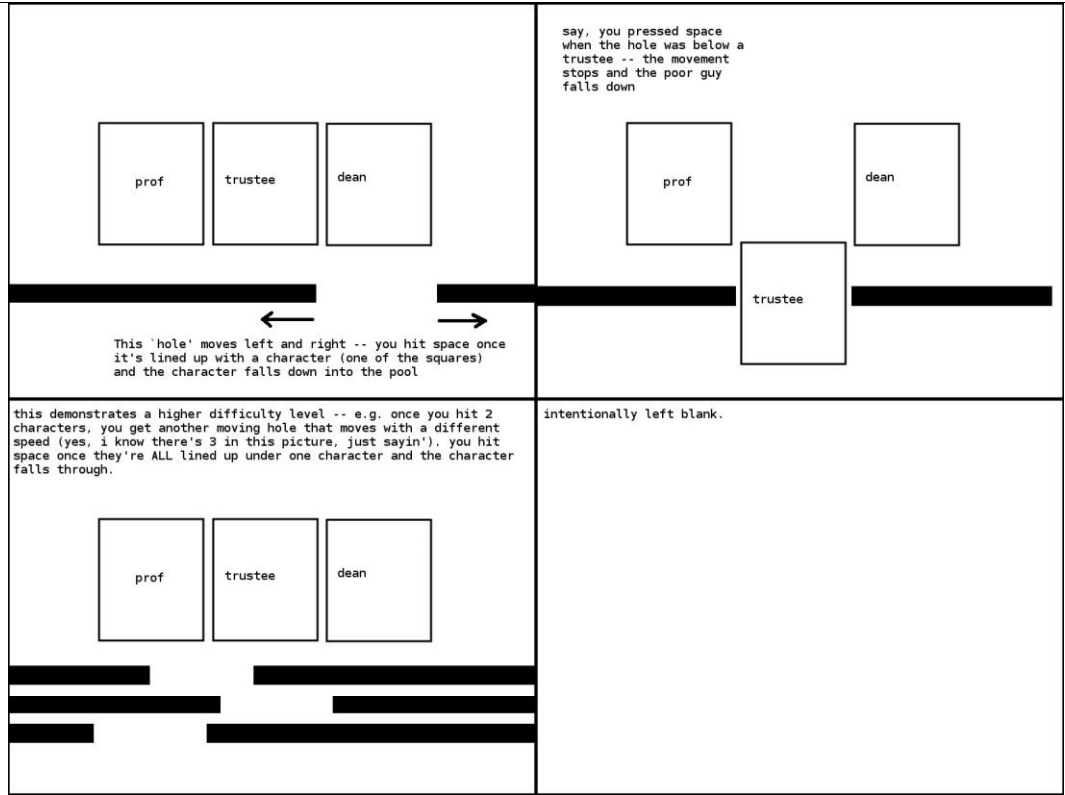
Standard Java desktop application using JFrame (are there non-desktop platforms that uses JFrame?).

Gui Size (game window size?):

800 x 600 pixels

Game Mechanics

-Target Mechanics – the sliding target:



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.

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 to should be correspondingly rewarding.

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 (title and mode selection)
 - Main (where the game is played)
 - Dunks (each character gets a special dunking scene)
- Sounds:**

- Theme song.
- Boos when user misses a character's 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
 -?Make the slider loop instead of sliding left and right?
 -Add background image
 -Show sound effects work
 -Add image for dunk-able characters

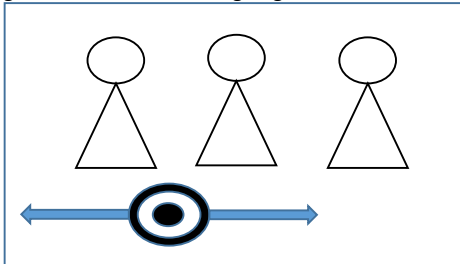
Alpha

-Pause feature
 -Put proper images to dunk-able characters
 -Put proper background images

Beta

-Swap hole slider mechanic for the target shooting mechanics:

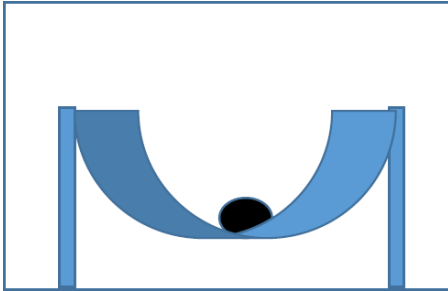
Target Mechanics – the sliding target:



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:



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.

-Add start splash screen.

Stable Release

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

- Game Modes: Easy, Medium and Hard. The difference should be in how difficult is to hit a target (how fast the target moves and how precise the hit needs to be in order to be registered).
- How to Lose: If any characters health bar remains at 100% for n passes of the target the user loses.
- Game tutorial called "Blackboard" appearing on the start screen.
- Top 10 players high score table
- Multiple difficulty levels including having multiple sliding targets which they have to align in order for a dunk-able character to fall; faster moving target, wind factor, etc.
- Different objects to be thrown: tennis ball, bowling ball, darts, etc.
- Score system where each dunk-able character is worth a different values.
- The sliding target will be placed in front of the dunk-able characters. This means that if the player misses the target and hits one of the dunk-able characters instead, the player gets penalty points. In addition, if professor is hit by the toss-able object, he/she yell "I will fail you". If the Dean are hit by the toss-able object, he/she yells "I will expel you". If the Trustee is hit by the toss-able object, he/she yells "I will close down your College".

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

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

Commented [U3]: 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.