It’s Raining Men!

Game Design Document

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Layout is closely following the layout of Andy Harris’ “Catch the Cash” Game Design Document

## Overview

"It’s Raining Men" will be a basic 2D arcade game to demonstrate the overall flow of a game using pygame and simpleGE.

Player is “Guy” who is trying to build his roster while he is on vacation at the beach. His goal is to catch as many men as possible while on vacation. This is supposed to be lighthearted, funny, simple game. Guy walks around left to right trying to catch the men that are falling from the sky at different speeds.

## The Initial Statements

Will need to import pygame, simpleGE, and random first

## The Game class

This is the primary class of this game. It will be subclassed from simpleGE.Scene

The Game class will have a number of visual attributes:

* **guy** - an instance of the **Guy** class (see below)
* **mens** - a list of instances of the **Men** class (see below)

It will also contain some non-sprite assets:

* **sndMen** - a stock instance of the simpleGE.Sound class

Initializer will create all the needed components:

init:

Set image to Beach.png

Initialize sndMen to men sound effect

Create instance of Guy -> guy

Create list of (10) Men instances -> mens

Add guy and mens to sprites

All event-handling will occur in the scene's process() method:

process:

For each men in the mens list:

If that men collides with guy:

Play the men collision sound (sndMen)

Reset that men

## Components of the Game class

Each of the visual elements of the Game class is an extension of a simpleGE element.

### Guy

Guy is a subClass of simpleGE.Sprite

The image is image of a guy with creative commons

Size should be roughly 35 by 45

Transparent background is preferred

Initial position center bottom of screen

moveSpeed attribute is an integer starts at 5

init:

Set image to Guy.gif

Set size to 35x45

Set position to (320, 400)

Set moveSpeed to 5

All event-handling will be in process() method

Move left on left key, right on right key

process:

If left key is pressed

Subtract moveSpeed from x

If right key is pressed

Add moveSpeed to x

### Men

Men is a subclass of simpleGE.Sprite

The image is image of Old man with creative commons

It should have a transparent background

Reset method sets coin to top of screen, random position

Fall speed is random within limits (3 to 8 ppf for now)

Men falls down screen

If men leaves bottom of screen, reset

Men-guy collision handled at game level, not needed here

Men has no special attributes, but three methods

* **init()** - standard initialization
* **reset()** - custom method to set speed and position
* **checkBounds()** - overwrite existing checkBounds to handle bottom-of screen

init():

Set image to Men.png

Set size to 25x35

Call reset()

reset():

Set y to 10

Set x to random from zero to screen width

Set dy to random between 3 and 8

checkBounds():

If bottom of sprite is larger than screen width:

Call reset()

## The main() function

This plays the game

* **game** - an instance of the Game class

Psuedocode for main

main():

Create an instance of Game -> game

Start game

## Milestone Plan

Follow videos of professor to understand how to format game with new game engine. Each step is written below.

1. Game scene with background image
2. Add basic Guy sprite
3. Add keyboard motion to Guy
4. Add single men with reset, falling and boundary behaviors
5. Add collision effect between guy and men, added sound effect as well
6. Modify for multiple mens including collision

## Asset plan

A crab on a beach

AI-generated content may be incorrect.

[Beach background | OpenGameArt.org](https://opengameart.org/content/beach-background)

Creative commons

A cartoon of a person

AI-generated content may be incorrect.

[Man walking animation | OpenGameArt.org](https://opengameart.org/content/man-walking-animation)

Creative commons

A pixel art of a person

AI-generated content may be incorrect.

[bald man | OpenGameArt.org](https://opengameart.org/content/bald-man)

Creative commons

Doh sound

[Doh! | OpenGameArt.org](https://opengameart.org/content/doh)

Creative commons