



# TERMINAL APPLICATION

## WALDOW-THE-DEV

# AGENDA

## Terminal Application:

- » Features and Usage
- » Code
- » Review

# OVERVIEW

## Core Functionality:

- » Star Wars themed
- » ‘Scissors, Paper, Rock’ simulator
- » *‘Sith-Lord, Jedi, Ewok’*
- » Single Player Game vs AI

# FEATURES

## Main Menu:

» Play Game

» Read Rules

» View Leaderboard

» Exit

# SPRINKLES

- » Coloured Text
- » Ascii Header
- » Prompt Menus
- » Quote Generator
- » Sound Bytes

- » Round Tracker
- » Player Name
- » Options Sub-Menu
- » Screen Clear
- » Exit Check
- » Sleep + DEMO mode

# REVIEW

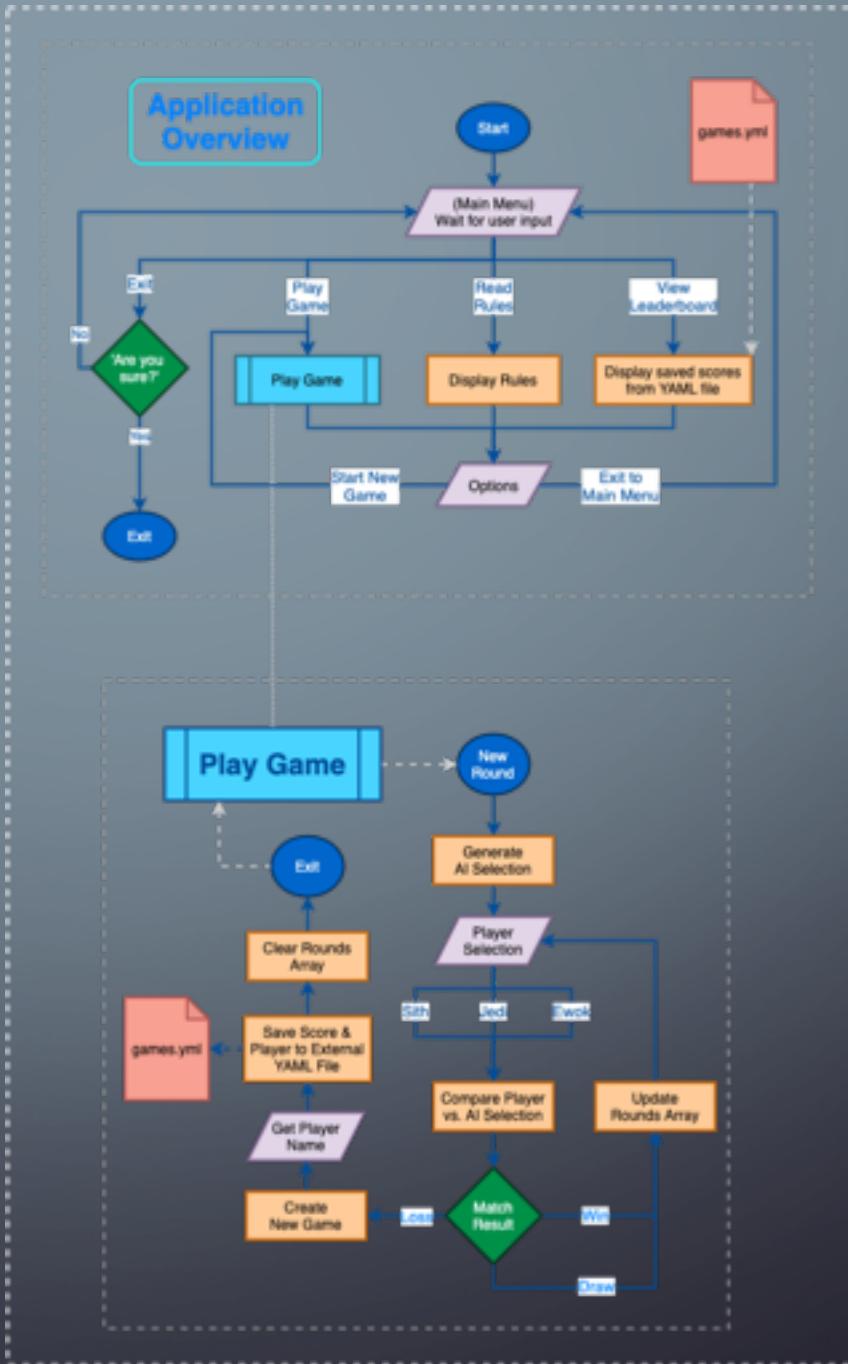
## Challenges:

- » Lengthy Testing
- » Require Loop Errors
- » MVC
- » Scope Creep



DEMO?

# FLOWCHART



# CODE OVERVIEW

## TERMINAL APP - DEMO TALKING POINTS:

- APP.RB
  - REQS CREWS
  - = PLAY SOUND BYTE
    - ↳ RUBY 2D GAME
- TTY PROMPT
  - ↳ OUTPUTS 0..3 BASED ON USER SELECTION
- OO LOOP
- DISPATCH.RB
  - CONCISE CASE STATEMENT
- APP CONTROLLER (MVC)
  - 4 MENU OPTIONS
  - + 1 "HIDDEN" SUB-MENU OPTION
- PLAY GAME
  - ↳ EACH GAME IS MADE UP OF ROUNDS :: 2x CLASSES
  - ↳ [ROUND] HANDLES GAME LOGIC
  - ↳ [GAMES] HANDLES SAVING USER SCORES TO LEADERBOARD
  - ↳ LOOP ROUNDS UNTIL ROUND IS LOST
  - ↳ GAMES GETS USER NAME AND SAVES ROUNDS DATA TO SINGLE SCORE INTEGER, THEN WRITES TO YAML
  - ↳ "PLAY-OR-MENU" SUB-MENU OPTION
    - ↳ THIS WAS A FEATURE I WANTED BUT COULDN'T FIGURE OUT HOW TO IMPLEMENT AT FIRST.
    - DEFACORED TO 1 LINE IN: 34 BECAUSE I WAS GETTING INPUT FROM USERS IN OPTIONSVIEW I COULDN'T USE THOSE VARIABLES BECAUSE THEY WEREN'T RECOGNIZED BY CONTROLLER. I EVENTUALLY ASSIGNED THE "RESULT" OF CALLING VIEW METHODS TO A VARIABLE WHICH I COULD THEN MANIPULATE.

## + ROUND.RB (MVC)

- TALK ABOUT CLASS INSTANCE VARIABLE
- ALLOWS YOU TO ASSIGN DATA LIKE YOU WOULD A CLASS VAR BUT ONLY THIS (SELF) CLASS CAN ACCESS/MODIFY VAR.
- LOTS OF SELF METHODS
  - ↳ MAKES CODE VERY DRY IN THE VIEWS

- GAME LOGIC

↳ SPLIT INTO INPUT VS. SELECTIONS

↳ ALLOWS MORE CONTROL FOR RANGE OF CHOICES TO INTEGERS AND STRINGS (AGAIN DRY IN VIEWS AS DATA DOESN'T NEED TO BE CONVERTED :: & RISK OF CONVERSION ERRORS).

↳ SELECTIONS METHOD INCLUDES COLORIZE SO STRINGS CAN BE PRINTED EASILY IN VIEW IN COLOURS

## - GAME.RB (MVC)

- SIMILAR IN STRUCTURE TO ROUND CLASS BUT SMALLER + DIFFERENT METHODS :: NO NEED FOR INHERITANCE
- YAML EXTERNAL FILE FOR SAVING SCORES

## - QUOTE GENERATOR (MVC)

- CLASS INST. VAR. TO STORE ALL QUOTES AND RELATED SOUND BYTES
  - ↳ [QUOTE, SOUND], [QUOTE, nil], etc.
- METHODS RETURN QUOTE OR SOUND

## - APP CONTROLLER (MVC)

- SHOW HIGHSCORES (LEADERBOARD)
  - ↳ USES CUSTOM OVERRIDE MAP METHOD IN GAME.RB TO YIELD ELEMENTS FROM @GAMES.YAML
  - ↳ GOES TO VIEW
- SHOW RULES
  - ↳ DISPLAYS RULES VIEW
- PLAY-OR-MENU
  - ↳ GETTING THIS TO WORK TOOK A LONG TIME, BUT WAS ULTIMATELY A CONTROL FLOW PROBLEM:

## ~ CONTROL FLOW ~

ALL THAT'S HAPPENING IS I'M CHECKING THE FINAL VALUE OF THE OPTIONS VIEW (USER PROMPT) IS FALSE (OPTIONAL OPTION). RATHER THAN "SEND" THE USER BACK TO THE MAIN MENU, I JUST "DO NOTHING" AND THE ITERATION OF THE APP.RB LOOP ENDS, FOOLING THE USER INTO THINKING THEY ARE ACTUALLY "GOING BACK" TO THE MENU.

THIS ALLOWS ME TO PRINT QUOTE, PLAY SOUND + PROMPT USER WITH 1 LINE OF CODE IN CONTROLLER AND IF NOT GOING TO THE MENU, INVOKE PLAY GAME METHOD AGAIN FOR NEW GAME.

## - EXIT?

- ↳ DISPLAYS EXIT VIEW

## \* VIEWS (MVC)

- NOTABLE ACTIVITIES
  - ↳ SYSTEM ('CLEAR')
  - ↳ SOUND . NEW
  - ↳ FUN FACT RUBY 2D IS PAINFUL TO INSTALL ON WINDOWS/LINUX BUT A DREAM ON MAC
  - ↳ TTY PROMPTS
  - ↳ • VALIDATE + REGEX ON NAME INPUT (GAMES VIEW)
  - ↳ • COLORIZE
  - ↳ • SLEEP
  - ↳ . RENDER w TTY TABLE
    - ↳ DRY ARRAY SORTING MANIPULATION
  - ↳ OPTIONS VIEW
    - ↳ REFACTORING QUOTE-GEN. CLASS REMOVED A HUGE UGLY CASE STATEMENT HERE