CSCI 205 Final Project

WordFX - A Better Wordle

By: Liv & Gang

Who We Are

Pedro Passos: Junior majoring in Computer Engineering – Scrum Master

Alvin Huynh: Junior majoring in Computer Engineering – Project Manager

Olivia Peters: Sophomore double majoring in CS and Music Composition – Developer

Ramon Asuncion: Freshman still undecided – Developer

Motivation

01 **Addicting!**
Who doesn't play Wordle these days?

02 **Flexible**
The idea of the game allows new modes

03 **Improvement**
Our team wanted to improve some aspects of the original implementation.

04 **Doable**
Can definitely be done & improved in 4 weeks

User Personas

- Different word lengths (hard, medium, easy)

- Streak

- Interesting themes

- Easy interface

Jean-Michel Mathieu

"I like a challenge"

Jose Pastor

"I don't keep the score, I keep scoring"

Juliette Masson
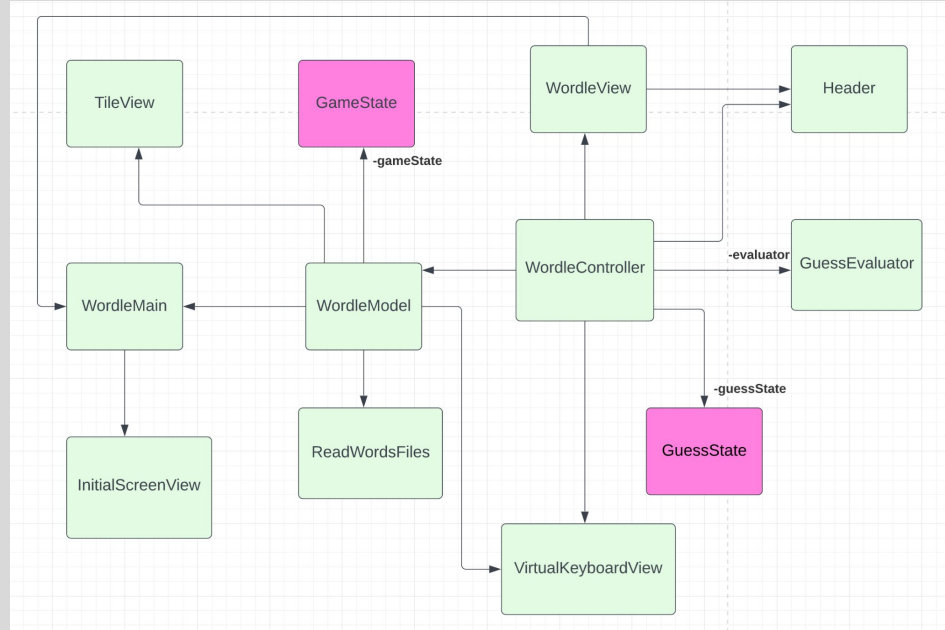
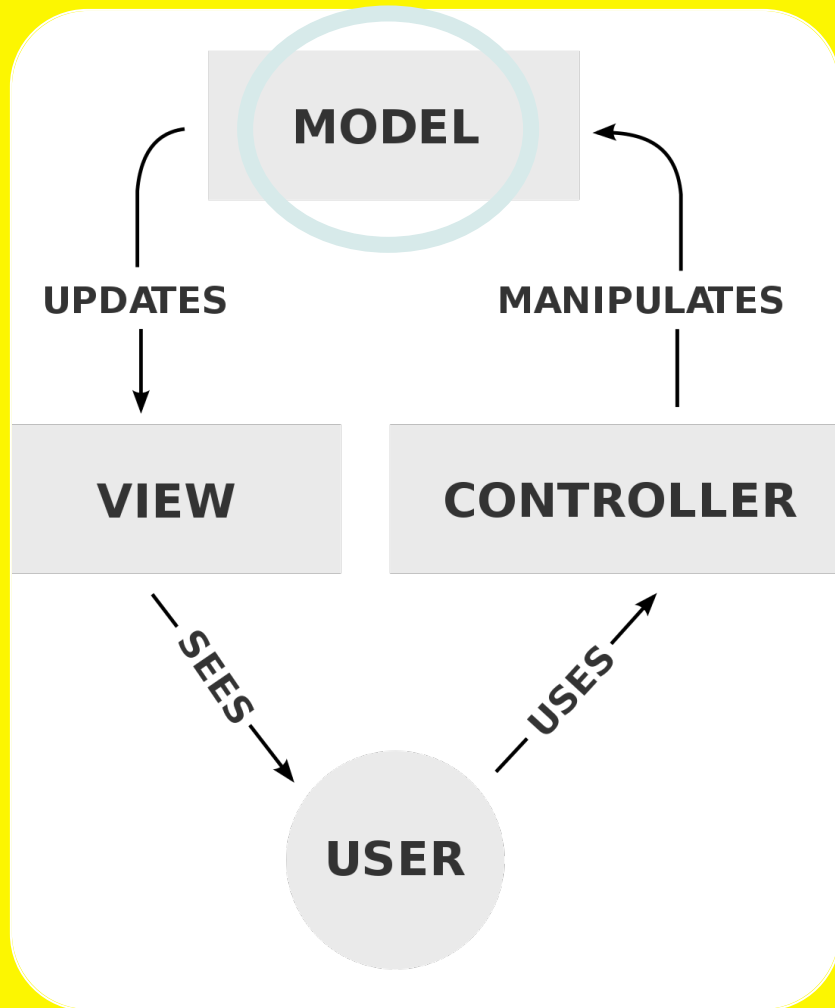"I like games with awesome and unique designs"

Megan Foster

"I like playing games with an easy user interface"

Design - JavaFX

# MVC!

Model-View-Controller...

The Model

Logic

The model will take care of the logic of the program. It will take care of aspects such as the length of the word, next available tile, if input is valid, and more.

The View

Interface

The view will present the information on the screen. It takes care of changing color of tiles, virtual keyboard, flipping letters, showing end message, and more.
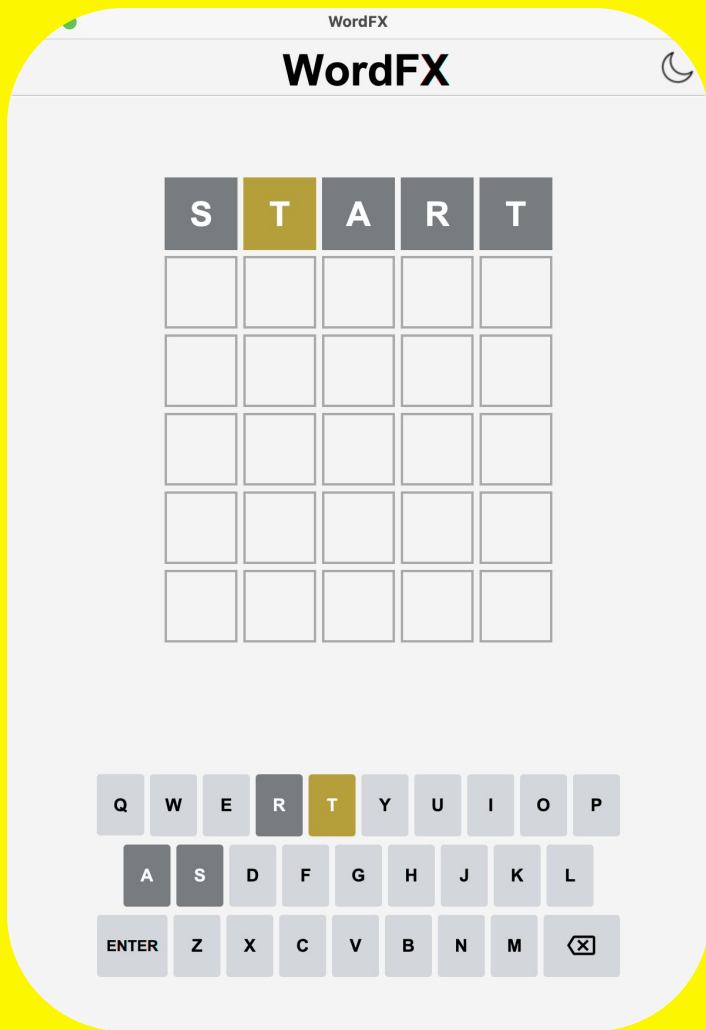
MODEL

UPDATES

MANIPULATES

VIEW

CONTROLLER

SEES

USES
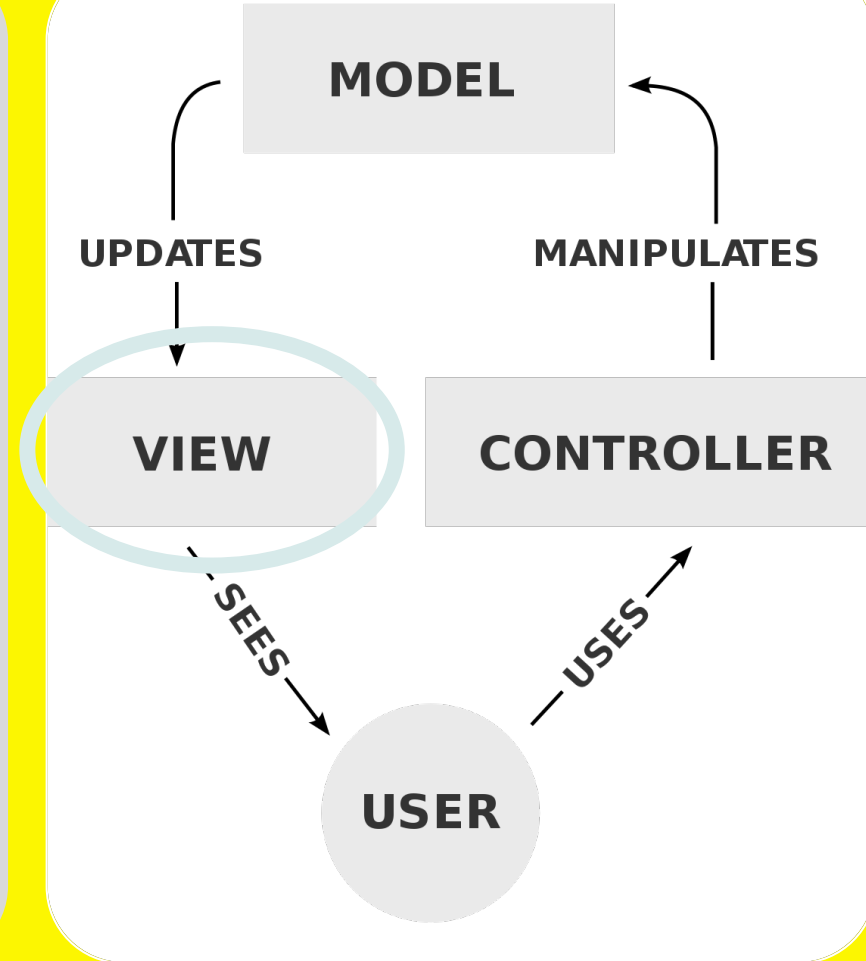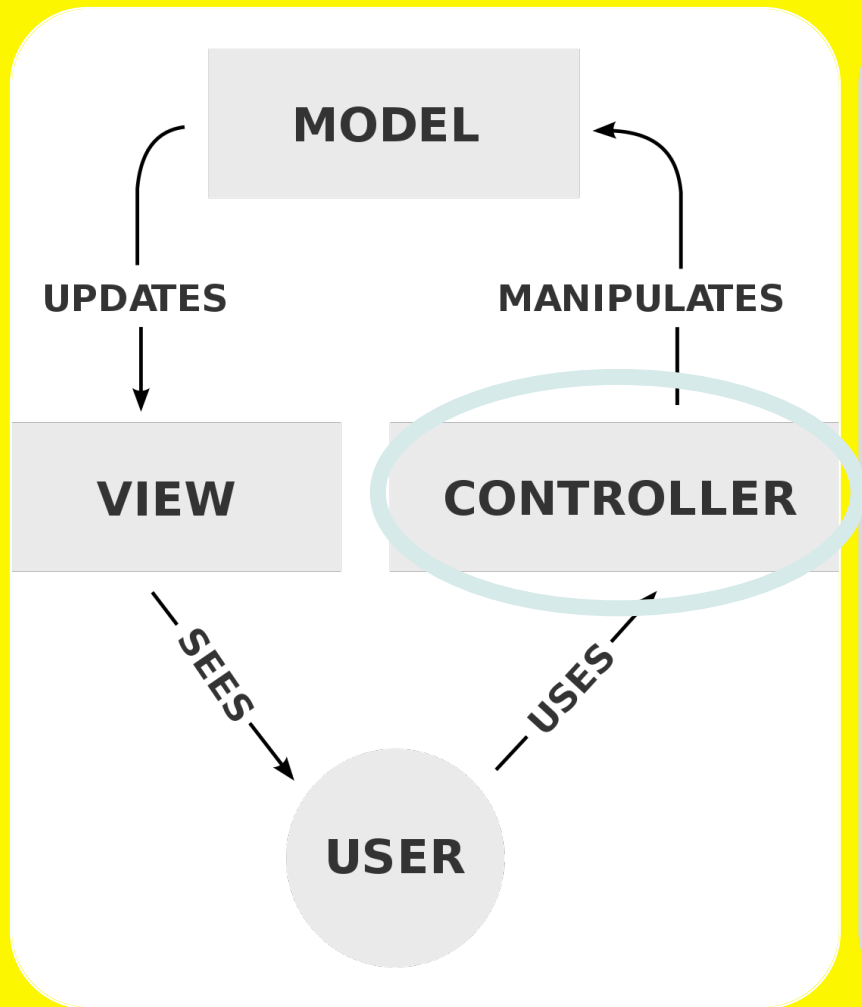
USER

The Controller

Interaction

The controller is how the user interacts with the program. It takes care of capturing typing on the physical keyboard, virtual keyboard, dark mode button, play again button, and more.

WordFX

Implementation: GuessEvaluator

Map Secret word letters to guess letters using two separate arrays:

[L, E, M, O, N] → *Secret Word Array*

[H, E, L, L, O] → *Guess*

evaluator: "-----"

Correct position → *

Misplaced → +

Not Present → -

Demonstration

Scrum

- ○ Used class time for daily scrum meetings
- ○ Worked on communicating with each other
- ○ Working through AIECode
- ○ Didn't always remember to log hours so may not have been completely accurate
- ○ Next time: use SceneBuilder
- ○ Next time: Start UML and documentation earlier

Project Burndown Chart
csci205_final_project (As of: 5-3-2022)
Does not include backlog

Today

04/18/2022   04/25/2022   05/02/2022

Date
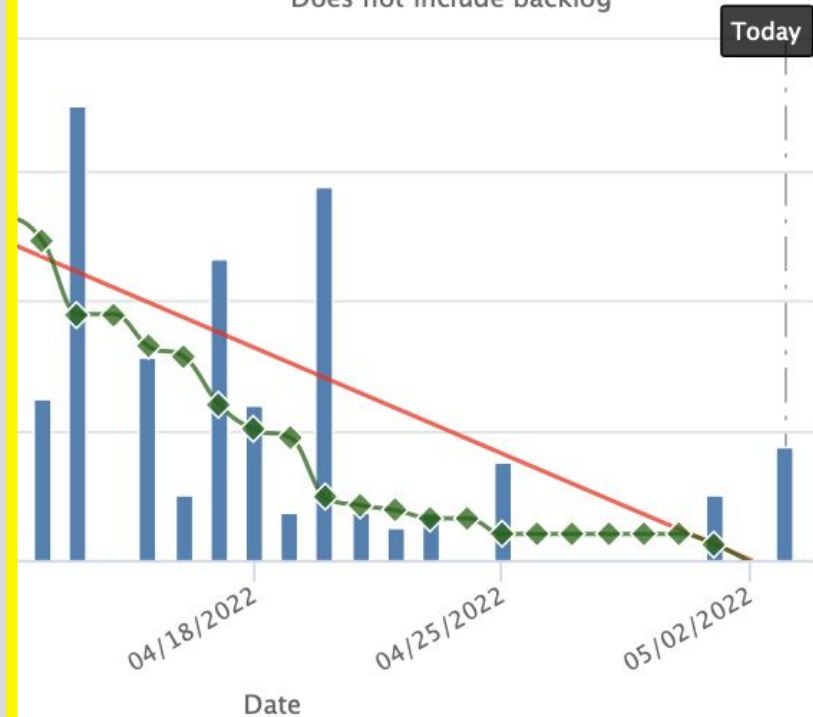
Successes and Challenges

Successes

- Algorithm
- Words files
- GUI looks very similar to actual game
- Dragging

Challenges

- Merge conflicts
- Managing work together
- Bugs within project
  - Getting letters to show on tiles
  - Double letter problem
  - Flipping tiles/getting colors to show after flip

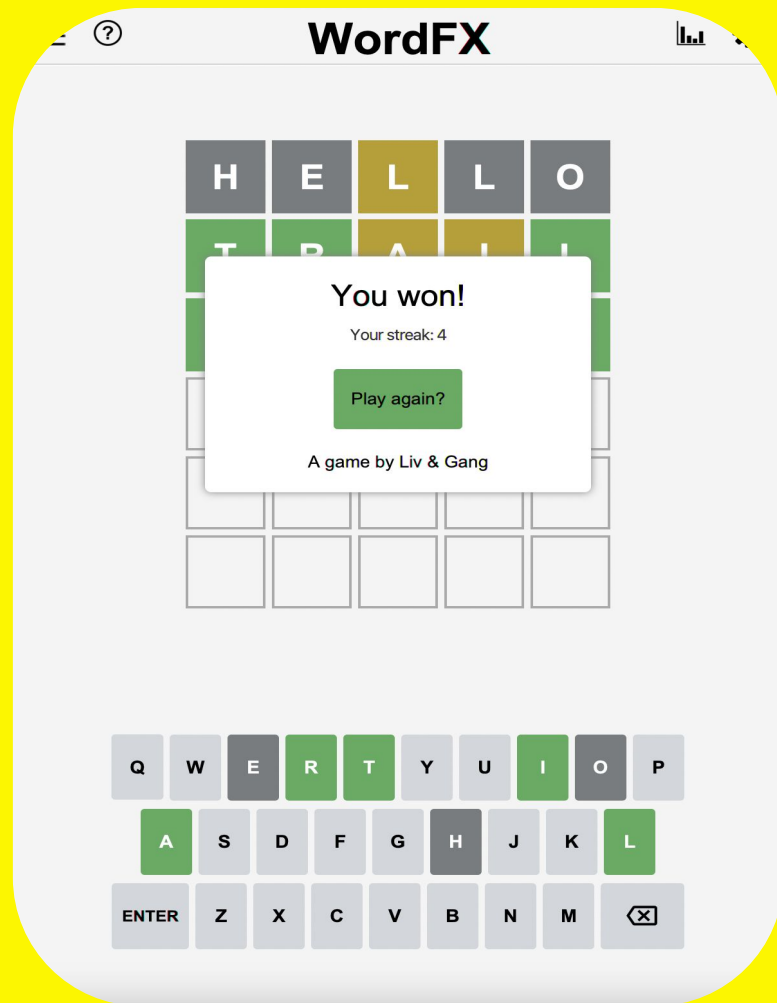**Time Estimation:** We were pretty good with estimating times, besides the documentation part.

Conclusion

Big accomplishments

Being able to implement more than we expected going into the project!

WordFX 2.0

- Create more themes
- Statistics menu
- A tutorial
- Multiplayer

Citations

- Frey, R. (2010). Model-view-controller. Retrieved May 8, 2022, from https://en.wikipedia.org/wiki/Model–view–controller.