# Final Project Documentation

**Application Name:** The Knockoff Wordle

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## 1. Project Overview

### 1.1 Problem Statement

My application solves the problem of people that have a need to do something. My application challenges the mind to guess a five letter word and only have six guesses. It gives people something challenging and fun at the same time to strengthen the brain.

### 1.2 Target Audience

The application is designed for people who like to solve puzzles and need a challenge for their brain.

### 1.3 Core Features

- Feature 1: User gets a brief history to how to game came to be
- Feature 2: User gets the rules and how to win the game
- Feature 3: Users get to test their skills and see if they can solve the puzzle

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## 2. Technical Design & Architecture

### 2.1 State Management Strategy

The application uses setState in the third screen to update the tiles on the screen to show characters and the word. The first and second screen use Stateless Widget because the code does not change and just gives the history and instructions.

### 2.2 Date Model

The main data structure used in the application is a List, which is used many different times, but it holds the characters that are used to make a word.

```
List<String> _wordList = <String>[...];
int _maxRows = 6;
int _wordLen = 5;
List<String> _guesses = <String>[];
String _currentInput = '';
String? _message;
Bool _gameOver = false;
```

## 2.3 Persistence / API Strategy

Example (Persistence): "The application persists the _guesses into a list of type String and goes through the list giving different types for the character 0= grey, 1= yellow, 2= green. It goes through it twice checking it with the random word from the _wordList.

## 2.4 Widget Tree Diagram

Widget Tree Diagram of FirstScreen



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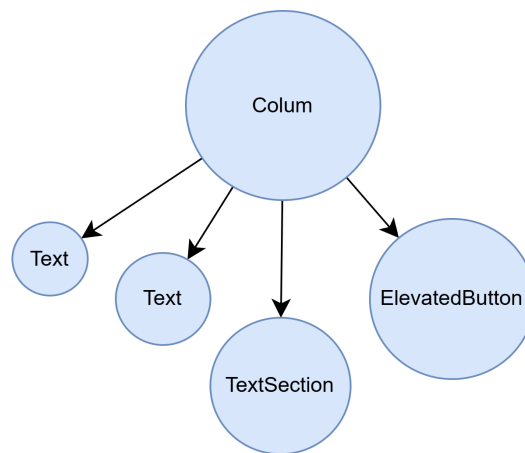
3. Setup & Installation

## 3.1 Prerequisites
● Firebase Studio and Flutter SDK

## 3.2 Installation Steps
1. Clone the public repository you created: git clone https://github.com/Hayden-Garcia/The-Knockoff-Wordle.git
2. Navigate into the project directory: cd main.dart
3. Set up your Flutter files: flutter create
4. After adding dependencies: flutter pub get
5. Run the application: flutter run (ctrl + Shift + p , then Show Web Preview)