

Android Assignment3

Wordle Android App Game

You can find multiple free websites to play this game.

The original website is at NYTimes: <https://www.nytimes.com/games/wordle/index.html>

Here is another website that you can play: <https://wordplay.com/>

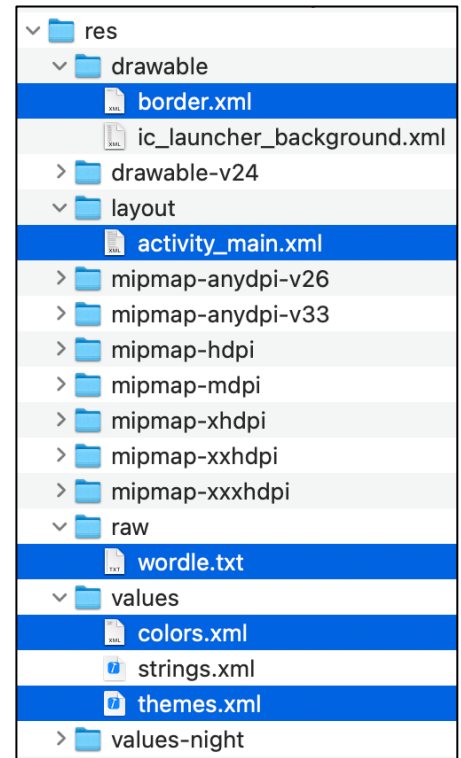
Step0. Get familiar with the Wordle game rules by playing it as many times as you need.

Step1. Student solution(s) are posted on BlackBoard for text version Wordle game from assignment1. Get familiar with the solution.

Step3. Open your AndroidStudio and create a new project. Your project name must be **Wordle** to work with my provided code.

Step4. Download WordleAndroid.zip from BlackBoard. Note that I extracted wordle.txt from internet. I tried my best to clean up the file, but it may have inappropriate words in it. Unzip and move the file to the appropriate directory. As you already know, we are using a framework, so you must put these files into designated directories. Otherwise, it will not work.

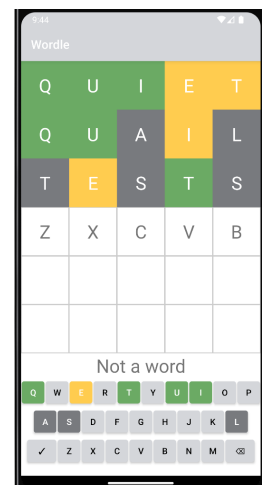
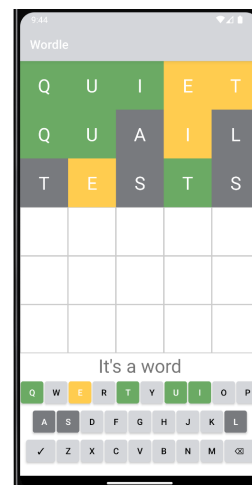
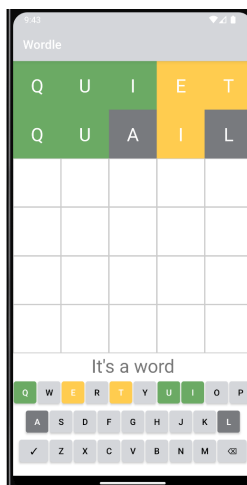
- a. main/res/drawable/border.xml
- b. main/res/layout/activity_main.xml
- c. main/res/raw/wordle.txt
- d. main/res/values/themes.xml
- e. main/res/values/colors.xml



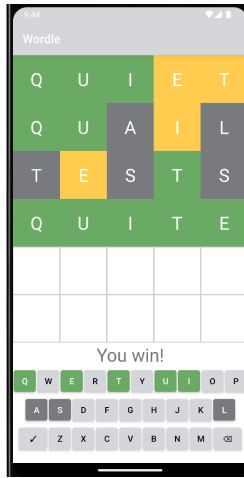
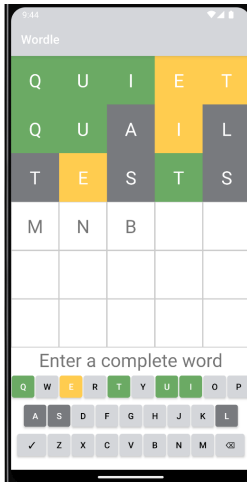
Step 5. I only provided UI part. Implement the Kotlin code (MainActivity.kt) as we discussed in class (**keep UI part as-is for testing purposes**).

(50 points) Implement Wordle Android App Game

- **At the top of you code, you MUST specify**
 - **Authors (team member names).**
 - **A very brief summary of what you or your team did**
 - **A list of any problems still in your code or anything that you didn't complete.**
- You should submit **ONLY** one file: **MainActivity.kt**
- **Your code MUST work as we discussed in class (e.g., working with posted UI code)**



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Hints

- How to read a file from `main/res/raw/wordle.txt`

```
BufferedReader(InputStreamReader(
    resources.openRawResource(
        resources.getIdentifier("wordle", "raw", packageName)
    )
).readLines()
```
- How to get textView id?

```
// Track the cursor position in the Wordle grid
private var row = 1
private var col = 1
// get textView (e.g., textView23) corresponding row and column
private fun getTextView(row : Int, col : Int): TextView {
    // e.g., idName is textView31
    val idName = if (col > 5) "textView${row}5" else "textView${row}${col}"

    // resources.getIdentifier will return corresponding number (e.g., 2131231192)
    val id = resources.getIdentifier(idName, "id", packageName)

    //println("idName is $idName and id is $id")    //for debugging
    return findViewById<TextView>(id)
}
```
- How to get button id?

```
// get letter button (e.g., buttonS, buttonQ)
private fun getButton(letter : String): Button {
    // e.g., idName is buttonA, buttonB, buttonC, etc
    val idName = "button${letter.uppercase()}"
    // resources.getIdentifier will return corresponding number (e.g., 2131231192)

    val id = resources.getIdentifier(idName, "id", packageName)
    return findViewById<Button>(id)
}
```