

## **8WOC Mini Project:**

For this project, you are expected to work in teams of three to accomplish the following tasks:

### **Goals:**

1. Develop a program that takes in a USFM file as input, parses the text, and displays its contents in a human-readable format.
2. Allow the user to specify the book name, chapter number, and language for the text they would like to see
3. Develop an interface for your users that is clean and usable

### **Stretch Goals:**

1. Allow the user to specify a range of verses they would like to view within a chapter when they are already looking at some text.
2. Incorporate approaches and technologies listed in the "Evaluation Criteria" below.

Make sure to finish the tasks listed under *Goals* before you start working on any tasks listed under *Stretch Goals*. Completing tasks in the *Goals* section creates an MVP for our product owner.

### **Requirements:**

Your app must run on the desktop and be written using the Kotlin language.

### **Getting USFM Files:**

You can get USFM files for your project via Door43 in one of three ways:

1. <https://api.door43.org/v3/catalog.json> contains a catalog of all content available organized by language. Under the "languages" key, you will find an object for each language. Each language contains various resources, but for this challenge you will want the "ulb" resource identifier where you will find a link to the USFM content.
2. Open a web browser, navigate to <https://live.door43.org>, click "Browse" in the header menu, and select one of the projects listed on the page, and download the USFM files for local storage. There is a download button at the top of the page for any project where you can get every single USFM file in a Zip format. You can also get fewer USFM files by navigating to a specific chapter from a project and then clicking on "See DCS". The link will take to a repo for that chapter where you can either clone all of its USFM files or download them directly.
3. Door43 has an API that you can target to retrieve the USFM files without having to store the files locally. The URL you want to access will be in the following format:  
[https://cdn.door43.org/{LANGUAGE\\_SLUG}/{BIBLE\\_TYPE}/v{VERSION\\_NUMBER}/{BOOK\\_SLUG}.usfm](https://cdn.door43.org/{LANGUAGE_SLUG}/{BIBLE_TYPE}/v{VERSION_NUMBER}/{BOOK_SLUG}.usfm)

## **Evaluation Criteria:**

Points will be distributed amongst teams who meet the criteria defined in the ten categories below.

- 1) UI/UX
  - a) Intuitive
  - b) Responsive
  - c) UI interactions that take longer than one second should provide a loading notification
- 2) Clean Code
  - a) Linter shows no issues
  - b) Lines do not exceed the 120 character line length (IntelliJ IDEA default)
  - c) Follows the official Kotlin coding convention:  
<https://kotlinlang.org/docs/reference/coding-conventions.html>
  - d) Function and variable names are clear
  - e) SOLID and DRY principles are followed
- 3) Clean Architecture
  - a) Use layers
  - b) Appropriate dependency direction
- 4) Git
  - a) Common repository
  - b) Use branches
  - c) Merge branches
- 5) TornadoFX
- 6) RxKotlin
- 7) Retrofit
- 8) Localization
  - a) String localization
  - b) Layout localization
  - c) Bidirectional text
- 9) Dagger2
  - a) Inject dependencies (ie network API, database, file storage)
- 10) JetBrains Exposed

Meeting each of the criteria within a category can earn a team up to ten possible points.

**PLEASE NOTE** that each team can earn points in the first four categories (UI/UX, Clean Code, Clean Architecture, and Git). However, points from the remaining six categories can only be awarded to one team. For example, Team 1 and Team 2 can each earn 10 points in using Git, but if both teams use TornadoFx in their submission, then the points for that category only count once. In such a situation, the judges will decide how to best award points. Overall, points are awarded in each category based on quality of work. Demonstrating strong knowledge and effective use will earn your team more points.

At the end of the challenge, each of the points accumulated from all teams will be added together, and a prize will be given based on the total points gathered from all teams.