Technical Requirements – New Chapter Check-in

Challenge is accessible on Memberspot: https://pl-coding.mymemberspot.io/library/jx3b7Qik9ip5qpNI8IF2/2BiP9k9ZAdvPhLG5wf7P/I2FtVnjdpzISTdX7E4YD/details

🎭 Scenario

Sometimes, before starting a new phase - in learning, work, or life in general - it’s helpful to pause for a moment and honestly ask yourself: am I really ready to move forward? This screen represents a short check-in before beginning a new chapter: giving it a name, sensing your level of confidence, and consciously confirming your intention. Only after that does the app allow the next step to begin.

👉 GitHub Repository

The implementation for this mini-challenge is provided in a GitHub repository: https://github.com/PL-Coding-GmbH/Campus-SpringValidation/tree/challenge/new-chapter-checkin

The repository contains multiple branches. Each branch corresponds to a **separate mini-challenge** in this series.

Clone the repository, switch to the branch for the current challenge, and work with the existing code. Your task is to focus on writing tests - the implementation itself should not be modified.

🎯 Feature Goal

The goal of this challenge is to practice writing unit tests for validation logic in a ViewModel. You must verify that the Begin Chapter action correctly evaluates input conditions and updates its availability based on defined business rules. The focus is on deterministic validation behavior and clear test coverage of boundary and invalid states - not UI interaction.

📌 Requirements

Input Data

The screen contains the following data elements:

- **Chapter title** – a text input used to enter the name of the new chapter;
- **Confidence level** – a slider that controls a numeric value in the range from 1 to 5;
- **“I’m ready to move forward”** – a checkbox confirming the user’s readiness to proceed.

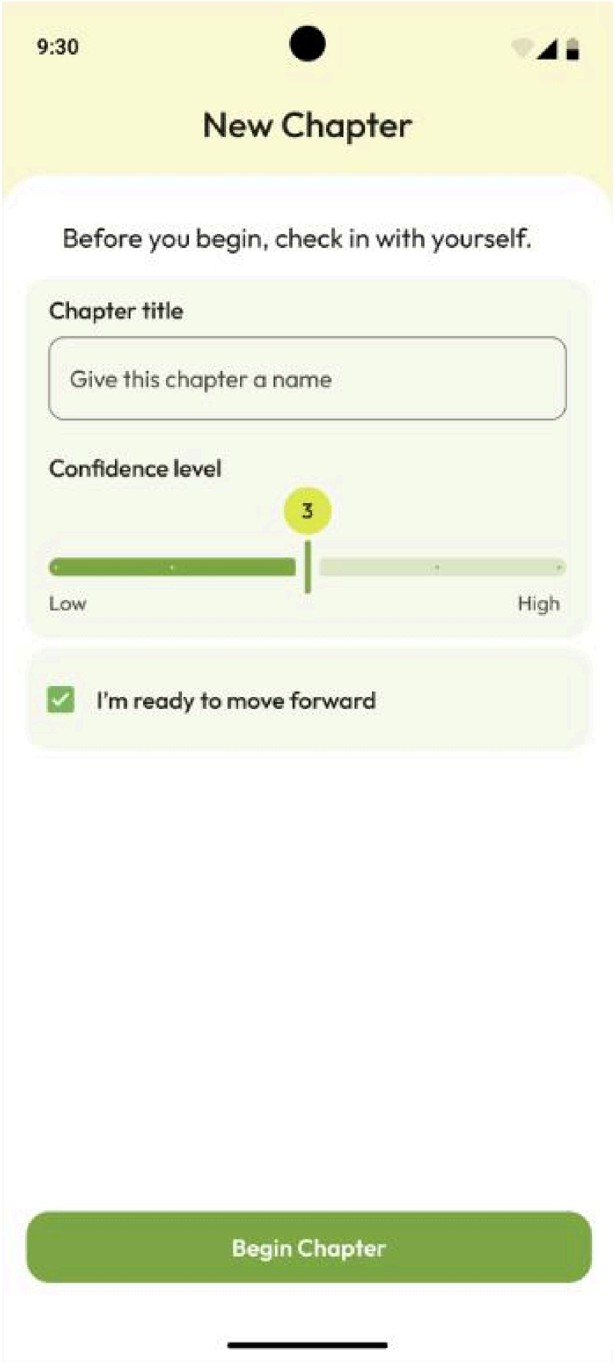
Validation Rules

A new chapter can be started only if:

- the Chapter title field is **not empty** and contains at least one non-whitespace character;
- the Confidence level value is set to **4 or higher**;
- the *“I’m ready to move forward”* checkbox is **checked**.

Action Availability

- The Begin Chapter button:
  - is **disabled by default**;
  - becomes enabled only when **all validation conditions are met**;
  - updates its state solely based on the current input values.



Before you begin, check in with yourself.

☑ I'm ready to move forward

🧪 Validation Tests Requirements

In this mini-challenge, you are required to write unit tests that verify the validation logic within the NewChapterViewModel. Your goal is to ensure that the isBeginButtonEnabled property in the UiState correctly updates its state based on different input states. Each test must focus on one specific rule while keeping all other inputs in a valid state.

1️⃣ Chapter Title Validation

Test name:

- beginButton_disabled_whenTitleIsEmpty

Setup:

- Chapter title: "   " spaces only
- Confidence level: 5
- Readiness checkbox: checked

Verify:

- The isBeginButtonEnabled property must be false when the title is empty or contains only whitespace.

2️⃣ Confidence Level - Below Required Threshold

Test name:

- beginButton_disabled_whenConfidenceBelowThreshold

Setup:

- Chapter title: "Chapter 1"
- Confidence level: 3 (below the threshold of 4)
- Readiness checkbox: checked

Verify:

- The isBeginButtonEnabled property must be false when the confidence level is below the minimum required threshold.

3️⃣ Confidence Level - At Required Threshold

Test name:

- beginButton_enabled_whenConfidenceAtThreshold

Setup:

- Chapter title: "Chapter 1"
- Confidence level: 4 (minimum threshold)
- Readiness checkbox: checked

Verify:

- The isBeginButtonEnabled property must become true when the confidence level reaches the minimum required value.

4️⃣ Checkbox Validation

Test name:

- beginButton_disabled_whenCheckboxIsUnchecked

Setup:

- Chapter title: "Chapter 1"
- Confidence level: 5
- Readiness checkbox: unchecked

Verify:

- The isBeginButtonEnabled property must be false if the *"I'm ready to move forward"* checkbox is not checked.

5️⃣ Valid Input State (Happy Path)

Test name:

- beginButton_enabled_whenAllInputsAreValid

Setup:

- Chapter title: "Chapter 1"
- Confidence level: 5

- Readiness checkbox: checked

Verify:

- The isBeginButtonEnabled property must be true when all validation conditions are satisfied.

🤔 What's Allowed?

- Standard Android / Jetpack libraries.
- Writing unit tests for ViewModel.

⚠️ What's not important

- UI implementation details or Compose-related behavior.
- Navigation or screen interaction logic.
- Refactoring the existing ViewModel structure.
- Adding extra validation rules beyond those specified.
- Writing additional tests that are not explicitly required.

🔗 Useful Links for This Challenge

- Fundamentals of testing Android apps
- Testing Basics
- The Ultimate Guide to Android Testing

🏆 Submission & Rewards

- Successfully submitting this challenge via the **/submit-challenge** command on Discord grants you **100 XP**.
- Your submission must include:
  a. A **Gist link** with your implementation.
  b. A **screenshot** of the test run results showing:
    - which tests passed,
    - which tests failed,
    - and the names of the executed tests.

> 💡 **Note:**
>
> Some tests in this challenge are **expected to fail** due to intentionally incorrect behavior in the app implementation.
>
> Your goal is to write correct tests, not to make all tests pass.

📩 How to Submit a Mini-Challenge

- In any Discord channel, type **/submit-challenge**.
- Attach your screen recording demonstrating the implementation according to the challenge requirements.
- Supported formats: MP4, MOV, AVI, MKV, WEBM, PNG, JPEG, JPG, GIF.
- The total file size must **not exceed** 50 MB.
- If additional materials are required (e.g. screenshots), attach up to 4 additional image files in the command pop-up before submitting.
- Press **Enter** to send the files.
- In the bot flow, select **Mini-Challenge**.
- Choose the month this mini-challenge belongs to (each month includes five mini-challenges).
- Select the exact **challenge name** you are submitting.
- Submit challenge.