

African History Challenge Quiz Report

African History Challenge App – My Learning Journey

My **African History Challenge** app is a simple quiz that tests your knowledge of African history with true/false questions. Let me walk you through how I built it and what I learned along the way.

What the App Does

The app asks you five true/false questions about African history—like Timbuktu being a learning hub or Mali's gold mines. After each answer, it tells you if you got it right and gives a short explanation. At the end, it shows your score and lets you review your mistakes.

How I Built It

1. The Basics

I used **Android Studio** and **Jetpack Compose**. Since I'm still learning, I kept things simple:

- **No fancy databases:** I stored all the questions and answers in plain Kotlin arrays (easy to edit!).
- **No complicated screens:** Just four main parts—welcome, questions, results, and review.

2. The Brains (ViewModel & State)

I learned about **MVVM**, which separates the app's logic (ViewModel) from the UI (Composables). Here's how it works:

- My QuizViewModel tracks:
 - Which question you're on
 - Your score
 - Whether you've finished the quiz
- When you answer, it checks if you're right and updates the score.

At first, the results screen kept **flashing**—turns out, I was updating the state too many times! I fixed it by:

- Using `derivedStateOf` to stabilize values like the score.
- Adding `LaunchedEffect` to make sure navigation only happens once.

3. The Flow (Navigation)

I used **Compose Navigation** to move between screens. It's like a roadmap:

- **Welcome → Questions → Results → Review** (or back to start).
The NavController helped me manage this without losing track of where the user is.

4. Small Wins

- **Feedback Matters:** I added green/red colours for right/wrong answers—it feels more rewarding!
 - **Explanations Teach:** Even if you get it wrong, you learn something from the short notes.
 - **No Crashes!** (Well, after a few fixes...)
-

What I Learned

1. Jetpack Compose is Powerful (But Tricky)

- Building UIs with code (instead of XML) is faster, but recomposition had me confused at first.
- `remember` and `mutableStateOf` are lifesavers for keeping things stable.

2. State Management is Key

- The app's "memory" (like your score) must be handled carefully—I messed this up at first.
- MVVM helped me organise the logic cleanly.

3. Debugging Teaches Patience

- That flashing results screen? Took me hours to fix! But now I understand `LaunchedEffect` better.

4. Simple Can Still Be Good

- You don't need fancy stuff to make a functional app. Arrays and basic Composables got me far!
-

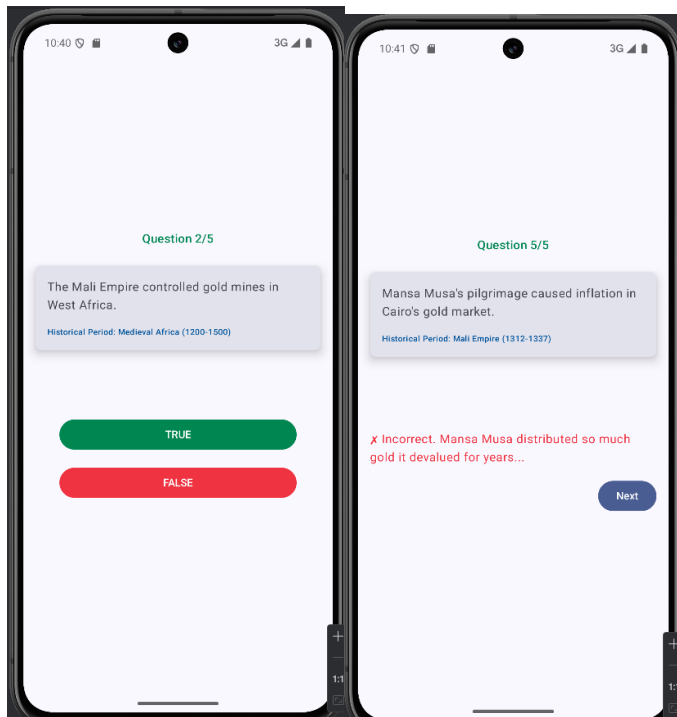
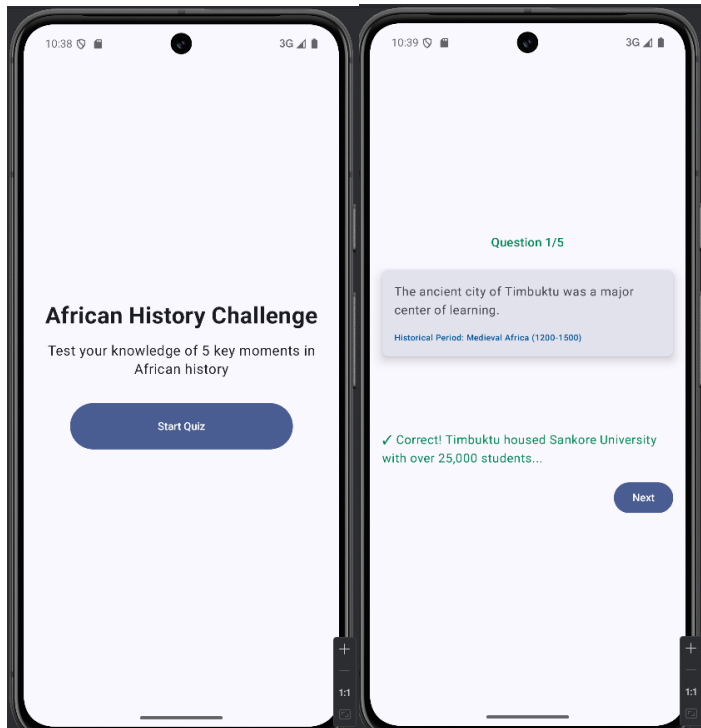
Where I'd Like to Improve

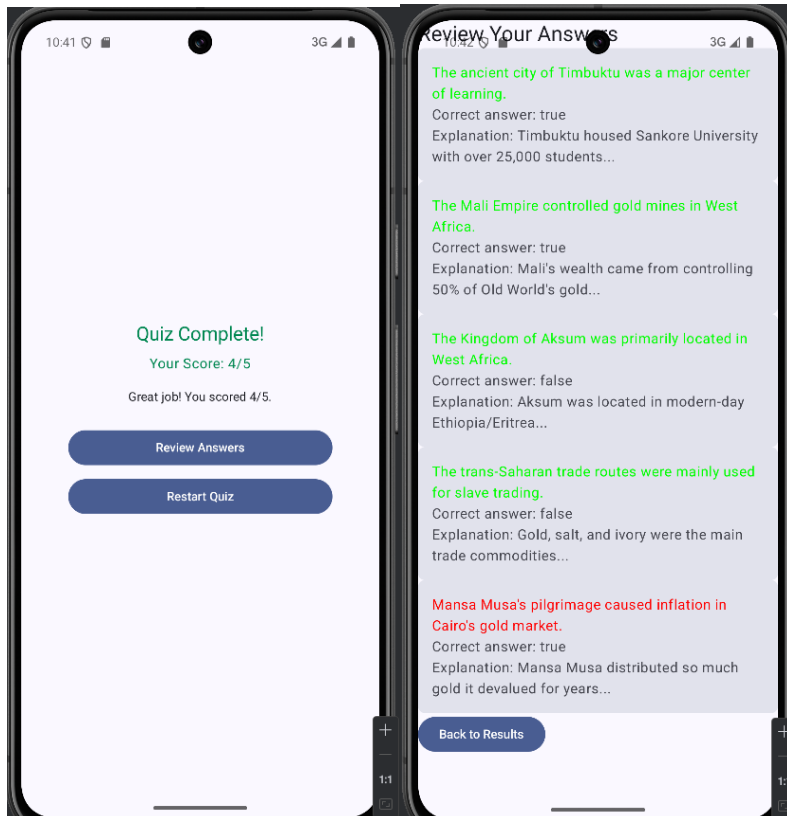
- **More Questions:** Maybe fetch them from the internet later.
 - **Sounds & Animations:** A little "ding!" for correct answers would feel nice.
 - **Progress Bar:** So users know how far they are in the quiz.
-

Final Thoughts

This project taught me heaps—not just about coding, but about *problem-solving*. It's not perfect, but it works, and I'm chuffed with that! Next time, I'll tackle something bigger, but for now, I'm just glad I got this one done.

If you're learning too, my advice is: **Start small, break things, fix them, and have fun!**





10:41

3G

Quiz Complete!

Your Score: 4/5

Great job! You scored 4/5.

Review Answers

Restart Quiz

Review Your Answers

The ancient city of Timbuktu was a major center of learning.

Correct answer: true

Explanation: Timbuktu housed Sankore University with over 25,000 students...

The Mali Empire controlled gold mines in West Africa.

Correct answer: true

Explanation: Mali's wealth came from controlling 50% of Old World's gold...

The Kingdom of Aksum was primarily located in West Africa.

Correct answer: false

Explanation: Aksum was located in modern-day Ethiopia/Eritrea...

The trans-Saharan trade routes were mainly used for slave trading.

Correct answer: false

Explanation: Gold, salt, and ivory were the main trade commodities...

Mansa Musa's pilgrimage caused inflation in Cairo's gold market.

Correct answer: true

Explanation: Mansa Musa distributed so much gold it devalued for years...

Back to Results