

Flutter Home Test - Live Polling & Voting App

Task Overview

You are required to build a **Live Polling & Voting App** where users can **log in with a username**, vote on polls, and view real-time results. Votes should be **stored locally**, ensuring that users **cannot vote more than once per poll**.

Functional Requirements

1. Login System

- Users should enter a **username** to log in (no password required).
- The username should be **saved in local storage (SharedPreferences)** so the user does not need to log in again.
- After logging in, users should be taken to the **Polls Screen**.

2. Poll Management

- Users should be able to **create a new poll** with:
 - A **poll question**.
 - **At least two voting options**.
- Each poll should be **stored locally**.

3. Voting System

- Users should be able to vote **only once per poll**.
- Once voted, the user should **only see the results** instead of voting buttons.
- Votes should be **stored locally** and **persist even after app restart**.

4. Real-Time Vote Updates

- When a user votes, the vote count should **update instantly**.
- A **bar chart** should display the results dynamically.

5. Logout Functionality

- A **Logout button** should be available on the **Polls Screen**.
- Tapping Logout should:
 - **Clear the stored username.**
 - Redirect the user to the **Login Screen**.

Technical Flow Diagram

```
[App Start]
|
|----> Check if username exists
|      |----> [YES] → Go to [Polls Screen]
|      |----> [NO] → Go to [Login Screen]
|
[Login Screen]
|----> User enters username
|----> Redirect to [Polls Screen]
|
[Polls Screen]
|----> Load Polls (if existing)
|----> User taps on a poll → Go to [Voting Screen]
|----> User taps "Logout" → Clear username → Redirect to [Login Screen]
|
[Voting Screen]
|----> Check if user has already voted for this poll
|      |----> [YES] → Show only "Results"
|      |----> [NO] → Show voting options
|
|----> User selects an option → Update votes
|----> Mark user as voted → Update UI
|----> Show live vote count + Bar Chart
|
[Logout]
|----> Clear stored username
|----> Redirect user back to [Login Screen]
```