

1. Implemented SharedPreferences:

- Added SharedPreferences to save trip details persistently.
- Created methods to save and load trip data from SharedPreferences.

2. Added a "Mark as Running Trip" button:

- This button saves the current trip details to SharedPreferences.
- It sets the `_isRunningTrip` flag to true.

3. Modified the "End Trip & Generate Bill" button:

- This button is only enabled when there's a running trip.
- It generates the PDF bill, clears trip data, and resets the UI.

4. Created methods to manage trip data:

- `_loadSavedTrip()`: Loads trip details from SharedPreferences if a trip is running.
- `_saveTrip()`: Saves current trip details to SharedPreferences.
- `_clearTripDataFromPrefs()`: Removes specific trip-related keys from SharedPreferences.
- `_clearTripDetails()`: Resets all in-memory trip data and UI state.

5. Improved text input handling:

- Introduced `TextEditingController`'s for text fields (customer name, company name, distance).
- Updated methods to use these controllers for getting and setting values.
- Removed `onChanged` callbacks to fix issues with text input.

6. Enhanced state management:

- Initialized controllers in `initState()`.
- Added `dispose()` method to clean up controllers.

7. Updated UI to reflect running trip state:

- Disabled "Mark as Running Trip" button when a trip is already running.
- Enabled "End Trip & Generate Bill" button only when a trip is running.

8. Implemented proper error handling:

- Added try-catch blocks for PDF generation and file operations.
- Included permission checks for storage access.

9. Added user feedback:

- Used SnackBars to inform the user about trip status changes and bill generation.

These changes collectively create a system where:

- Users can start a trip, saving its details persistently.
- The app remembers an ongoing trip even if closed and reopened.
- Users can end a trip, generating a bill and clearing all trip data.
- The UI reflects the current state of the trip clearly.
- Text input works smoothly without cursor position issues.

This implementation provides a robust trip management system with persistent storage, clear user interaction, and proper state management.