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Experiment No. 5

Aim:

To apply navigation, routing, and gestures in a Flutter App.

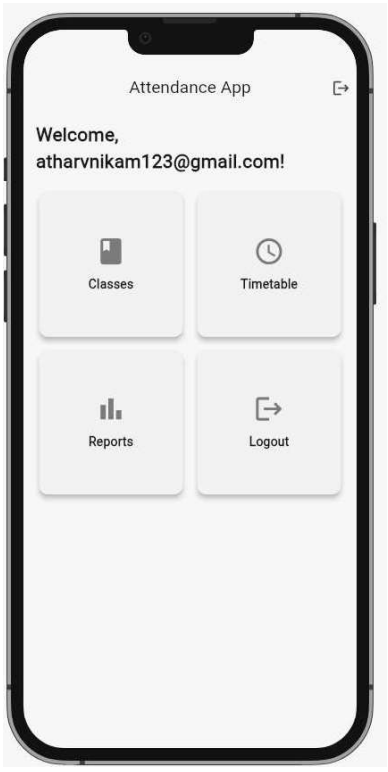
Theory:

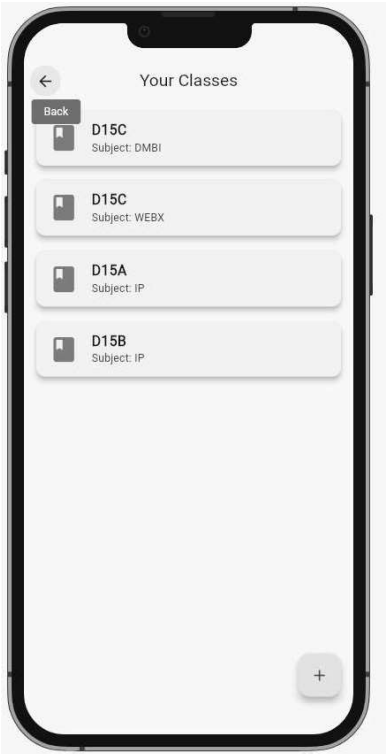
In this experiment, we implemented navigation, routing, and gesture handling in our Attendance App to provide a seamless and interactive user experience. Navigation is a key part of any app's user flow, and Flutter offers multiple ways to move between screens, including named and anonymous routes.

We structured the app using named routes for better scalability and maintainability. Screens like Login, Dashboard, Class List, and Attendance Marking were connected using Flutter's Navigator and MaterialPageRoute. This allowed users to easily transition between functionalities with a smooth and intuitive flow.

Gesture detectors and built-in gesture widgets such as InkWell and GestureDetector were used to capture tap actions on UI components like cards and buttons. For example, tapping on a class card navigates to the student list, and tapping on a student toggles their attendance status. These interactions made the app more dynamic and reduced the need for additional UI clutter.

Screenshot:





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Conclusion:

The implementation of navigation and gestures played a crucial role in enhancing the usability of the Manual Attendance App. It allowed users to quickly access different parts of the app while maintaining a clean and responsive UI. The routing structure also made the codebase more organized and future-proof for adding more features. Gesture handling added a natural and interactive feel to the app, making it intuitive even for non-technical users.

GitHub Link:

https://github.com/atharvnikam38/attendanceapp