Flutter App Assignment

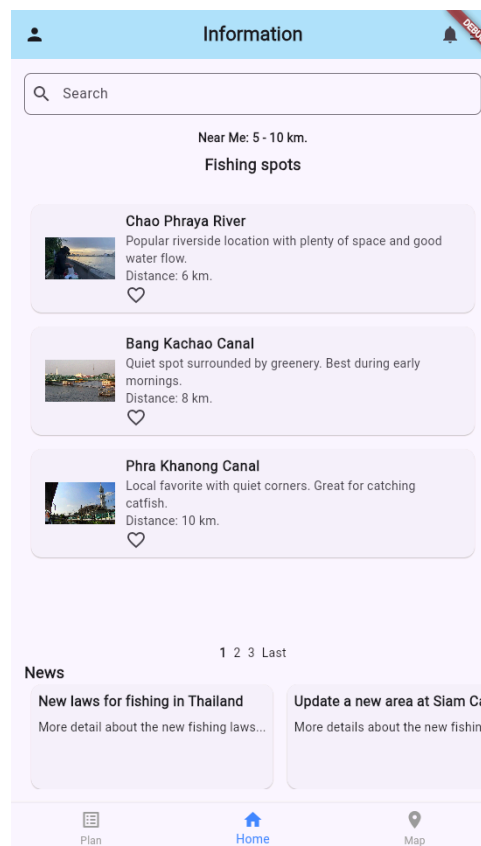## Student Information

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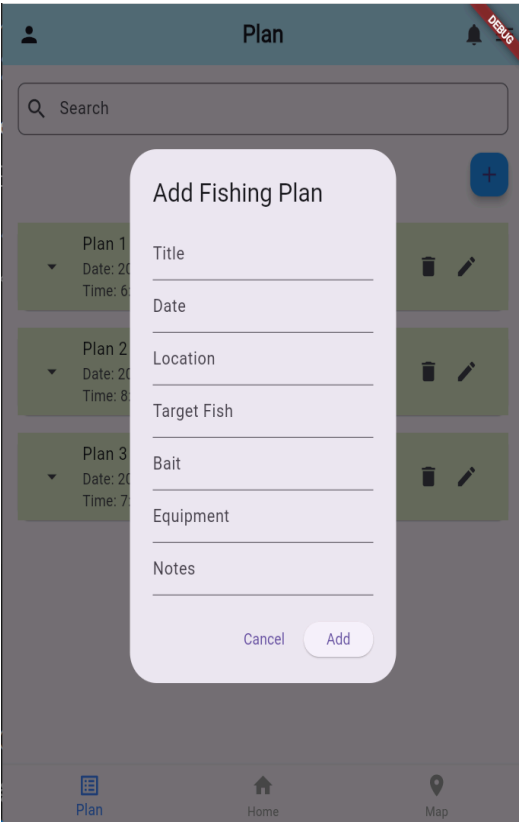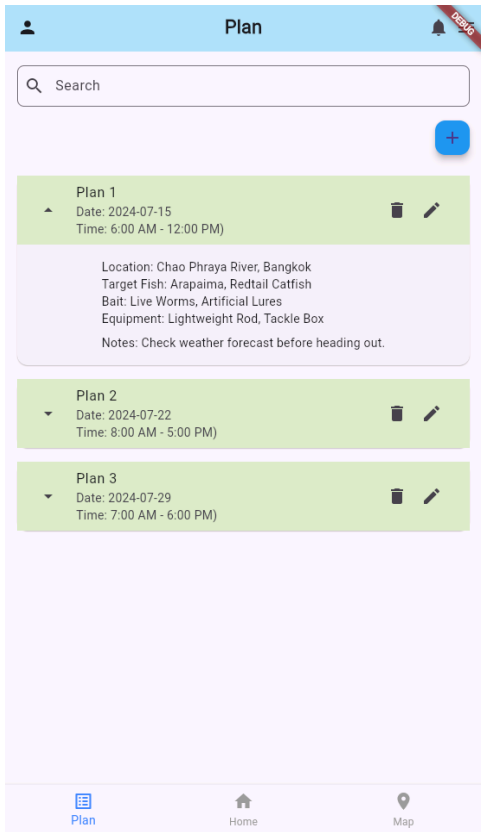
Section: 1

Pages Implemented

1. Page Name: Home page

Description: Displaying information about fishing spots and news.

2. Page Name: Plan page

Description: The FishingPlanPage allows users to view, remove, edit, and add fishing trip plans in advance.

Features and Widgets Used

List important widgets, layout elements, and Material Design components you used.

1. Main (main.dart)

   Key Widgets and Layout Elements:

   StatelessWidget: The MyApp class itself is a StatelessWidget, meaning its configuration is immutable and doesn't change over time. This is appropriate for the root application widget.

   ```
   home: HomePage()

   routes: {

       '/plan': (context) => FishingPlanPage()

   },
   ```

2. Home page (home_page.dart)

The layout is organized with Column and Row, scrollable content is handled with ListView.builder, and visual distinction is achieved with Card.

Key Widgets:

AppBar: The horizontal bar at the top of the screen. I've used it for the title, leading icon (person), actions (notifications and menu), background color, and centering the title.

ListView.builder: Used to build scrollable lists. I've used it for both the vertical list of fishing spots and the horizontal list of news items.

Image.asset: show images of fishing spots from the "assets" folder inside each list item.

GestureDetector: Used to make the Icon for favoriting a fishing spot interactive, allowing me to toggle the isFaved state.

Icon: Used for Material Design icons like person, notifications, menu, search, favorite, favorite_border, list_alt, home, and location_on.

Drawer & DrawerHeader: The side panel that slides in from the end of the screen, a common Material Design navigation pattern.

Card + ListTile: For showing each fishing spot and news.

TextField & OutlineInputBorder: This is used to create a search bar.

BottomNavigationBar: The navigation bar at the bottom of the screen, a key Material Design component for switching between pages.

BottomNavigationBarItem: Individual items within the BottomNavigationBar.

3. Plan page (plan.dart)

It uses Material Design components to create a visually consistent and user-friendly interface for managing fishing plans. The layout is structured using Column, Row, Expanded, and ListView.builder to handle different screen sizes and dynamic content. An AlertDialog provides a standard way to input a new fishing spot, and the expandable Card within the ListView offers a clean way to display detailed information.

Key Widgets and Layout Elements:

AppBar: The top bar displaying the title "Plan," a leading icon, and action icons (notifications and menu).

ListView.builder: Efficiently builds a scrollable list of fishing plans based on the _plans data.

ListTile & Card: Used to display the basic information for each fishing plan (title, date, time) with a leading icon to toggle expansion and trailing icons for delete and edit.

TextField: Used for the **search bar** at the top of the page and within the "Add Fishing Plan" dialog for user input.

SingleChildScrollView: Wraps the content of the AlertDialog to ensure it remains scrollable if the content overflows the screen.

Icon: Used with Material Design icons like person, notifications, menu, search, add, arrow_drop_up, arrow_drop_down, delete, and edit.

Drawer: The side panel for navigation.

BottomNavigationBar & BottomNavigationBarItem: The navigation bar at the bottom of the screen, a key Material Design component for switching between pages.

<u>Add the Fishing spot part</u>

FloatingActionButton: A Material Design floating action button for adding new plans.

AlertDialog: A Material Design dialog for adding new fishing plans.

TextButton: A Material Design button used for the "Cancel" action in the AlertDialog.

ElevatedButton: A Material Design button with added elevation, used for the "Add" action in the AlertDialog.

Known Issues or Limitations

Briefly describe any parts of the app that aren't working as expected or things you couldn't finish.

Reflection

1. What did you find most challenging about this project?

The most challenging part of this project involved trying out each Flutter element, as it was my first experience with them. I initially found it a bit difficult to follow the lecture notes and grasp some of the components I hadn't encountered in the lab previously.

2. Which widgets or design elements are you most proud of using?

The list of fishing trip plans is the element I'm most proud of because it's one of the few times that helped me understand setState() and how the plan card can expand after clicking the icon. The arrow icon changes direction from down to up, and the card reveals the details.

3. What would you add or improve with more time?

I wasn't sure if I needed to create an add function because it wasn't included in the group project design. However, I did try to implement a dialog pop-up to add a new fishing trip plan. It still has some errors and doesn't add the data. I didn't know how to complete it based on my current skills and limited time. I had exams, and right after that, I interned in Japan. I think if I had more time and could ask my friends for advice, I might have been able to make this function work properly.