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AIM: To add icons and images into our projects through assets folder

Theory:

Adding a logo and custom font to a Flutter project enhances its branding and visual appeal. Here's a brief overview of the process:

Organize Project Structure:

Create folders within your Flutter project to store assets like images and fonts. Typically, you'll have folders like assets/images for images and assets/fonts for fonts.
Add Assets to pubspec.yaml:

Open the pubspec.yaml file in your Flutter project.
Under the flutter section, add an assets section if it doesn't already exist.
Specify the paths to the assets relative to the assets folder. For example:
yaml
Copy code

```
flutter:
  assets:
    - assets/images/logo.png
    - assets/fonts/custom_font.ttf
```

Place Assets in Folders:

Put your logo image files (e.g., PNG, JPG) in the assets/images folder and your font files (e.g., TTF, OTF) in the assets/fonts folder.
Load Assets in Flutter App:

Load the assets in your Flutter app so they can be used.

Use Assets in UI Elements:

Once assets are loaded, you can use them in your UI elements.
To display the logo image, use the Image.asset widget.
To apply the custom font to text elements, use the fontFamily property in the TextStyle of Text widgets.

Testing and Debugging:

After adding assets, ensure your Flutter app runs correctly.
Verify that the logo is displayed and the custom font is applied as expected.
Debug any issues, such as incorrect asset paths or font loading errors.

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CODE:

```
import 'package:flutter/material.dart';

void main() {
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Project Maintenance App',
      home: MyHomePage(),
      theme: ThemeData(
        // Define the custom font family
        fontFamily: 'YourCustomFont',
      ),
    );
  }
}

class MyHomePage extends StatefulWidget {
  @override
  _MyHomePageState createState() => _MyHomePageState();
}

class _MyHomePageState extends State<MyHomePage> {
  List<ProjectData> projects = [];

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: MyAppBar(),
      body: MyBody(projects: projects, onAddProject: _addProject),
    );
  }

  void _addProject(ProjectData project) {
    setState(() {
      projects.add(project);
    });
  }
}
```

```
class ProjectData {
  final String name;
  final String link;

  ProjectData({required this.name, required this.link});
}

class MyAppBar extends StatelessWidget implements PreferredSizeWidget {
  @override
  Widget build(BuildContext context) {
    return AppBar(
      title: Text(
        'Project Maintenance App',
        style: TextStyle(fontSize: 24, color: Colors.yellow),
      ),
      backgroundColor: Colors.blue,
      centerTitle: true,
      leading: Image.asset(
        'assets/images/logo.jpg', // Replace 'your_logo.png' with the actual path to your logo image.
        width: 40, // Adjust the width of the logo as needed.
        height: 40, // Adjust the height of the logo as needed.
      ),
    );
  }

  @override
  Size get preferredSize => Size.fromHeight(kToolbarHeight);
}

class MyBody extends StatelessWidget {
  final List<ProjectData> projects;
  final Function(ProjectData) onAddProject;

  MyBody({required this.projects, required this.onAddProject});

  @override
  Widget build(BuildContext context) {
    return Column(
      children: [
        Text(
          'Name of The Projects',
          style: TextStyle(
            fontSize: 24,
            color: Colors.black,
            fontFamily: 'ProtestRevolution', // Apply custom font here
          ),
        ),
        SizedBox(height: 20),
        Expanded(
          child: ListView.builder(
            itemCount: projects.length,
            itemBuilder: (context, index) {
              return ListTile(
                title: Column(
                  crossAxisAlignment: CrossAxisAlignment.start,
                  children: [
                    Text(
                      'Project ${index + 1}: ${projects[index].name}',
                      style: TextStyle(fontSize: 18, color: Colors.blue),
                    ),
                    if (projects[index].link.isNotEmpty)
                      InkWell(
                        onTap: () {
                          _launchURL(projects[index].link);
                        },
                        child: Text(
                          'Link: ${projects[index].link}',
                          style: TextStyle(
                            fontSize: 16,
                            color: Colors.blue,
                            decoration: TextDecoration.underline,
                          ),
                        ),
                      ),
                  ],
                ),
              );
            },
          ),
        ),
        ProjectForm(onAddProject: onAddProject),
      ],
    );
  }

  void _launchURL(String url) async {
    print('Launching URL: $url');
```

```
    // You can open the link in the default web browser here.
  }
}

class ProjectForm extends StatefulWidget {
  final Function(ProjectData) onAddProject;

  ProjectForm({required this.onAddProject});

  @override
  _ProjectFormState createState() => _ProjectFormState();
}

class _ProjectFormState extends State<ProjectForm> {
  final TextEditingController _projectController = TextEditingController();
  final TextEditingController _linkController = TextEditingController();

  @override
  Widget build(BuildContext context) {
    return Padding(
      padding: const EdgeInsets.all(16.0),
      child: Column(
        children: [
          Row(
            children: [
              Expanded(
                child: TextField(
                  controller: _projectController,
                  decoration: InputDecoration(
                    hintText: 'Enter Project Name',
                  ),
                ),
              ),
              SizedBox(width: 10),
              Expanded(
                child: TextField(
                  controller: _linkController,
                  decoration: InputDecoration(
                    hintText: 'Enter Project Link (Optional)',
                  ),
                ),
              ),
              SizedBox(width: 10),
              ElevatedButton(
                onPressed: () {
                  String projectName = _projectController.text.trim();
                  String projectLink = _linkController.text.trim();
                  if (projectName.isNotEmpty) {
                    widget.onAddProject(ProjectData(
                      name: projectName,
                      link: projectLink,
                    ));
                    _projectController.clear();
                    _linkController.clear();
                  }
                },
                child: Text('Add Project'),
              ),
            ],
          ),
        ],
      ),
    );
  }
}
```

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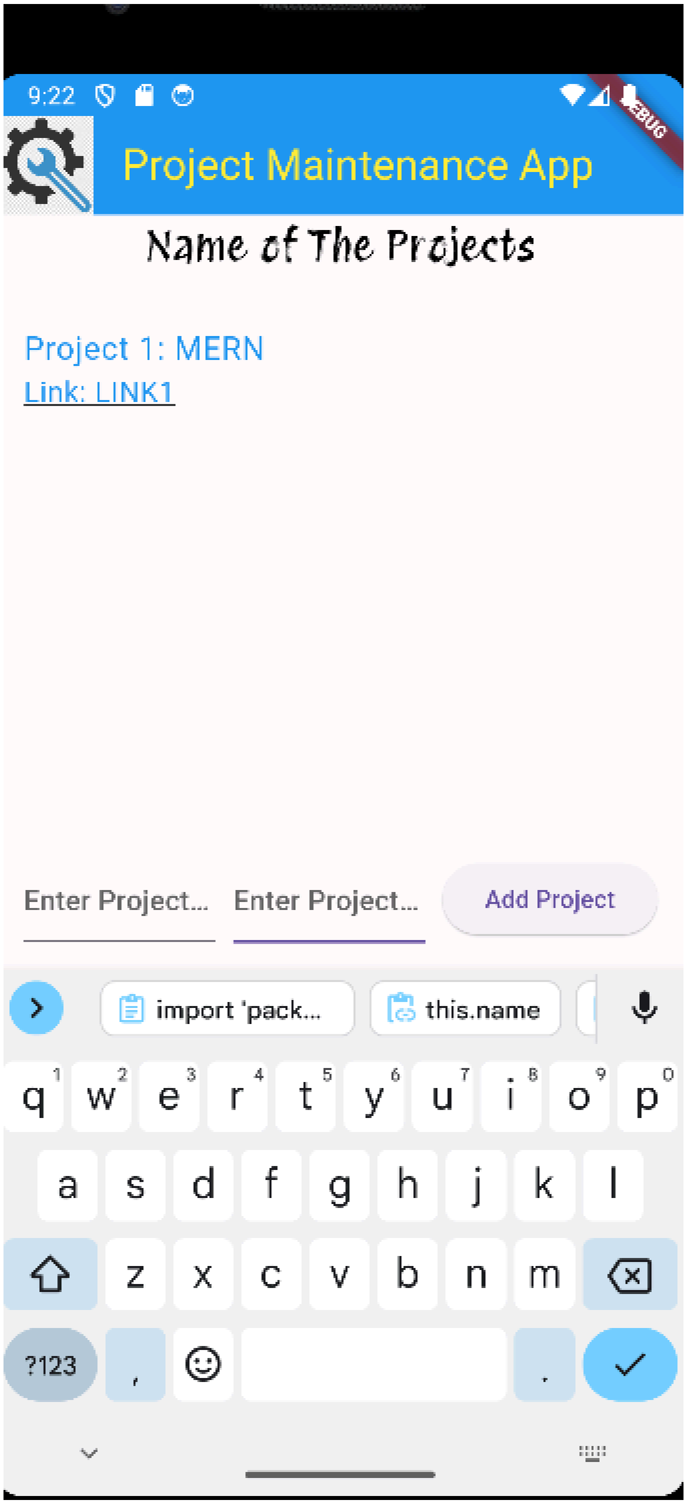

Project Maintenance App

Name of The Projects

Project 1: MERN

Link: LINK1

Conclusion:From the above experiments i have successfully implemented the execution and adding of image for the logo and the corresponding font for the header text.

So from this i have understood how to add logos and images as well as fonts to my flutter project