

Project Report

On

**PROJECT MANAGEMENT DASHBOARD**

Submitted in partial fulfilment of the requirements for the award of

**BACHELOR OF TECHNOLOGY**

in

**COMPUTER SCIENCE & ENGINEERING**

(Artificial Intelligence & Machine Learning)

by

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**Under the esteemed guidance of**

**Ms. S Annapoorna**

**Assistant Professor, CSE(AI&ML)**



**Department of Computer Science & Engineering**

**(Artificial Intelligence & Machine Learning)**

**BVRIT HYDERABAD COLLEGE OF ENGINEERING FOR WOMEN**

**(AUTONOMOUS)**

**(Approved by AICTE, New Delhi and Affiliated to JNTUH, Hyderabad)**

**Accredited by NBA and NAAC with A Grade**

**Bachupally, Hyderabad – 500090**

2024-25

**Department of Computer Science & Engineering**  
**(Artificial Intelligence & Machine Learning)**  
**BVRIT HYDERABAD COLLEGE OF ENGINEERING FOR WOMEN**  
**(Approved by AICTE, New Delhi and Affiliated to JNTUH, Hyderabad)**  
**Accredited by NBA and NAAC with A Grade**  
**Bachupally, Hyderabad – 500090**  
**2023-24**



## CERTIFICATE

This is to certify that the major project entitled **“Project Management Dashboard”** is a Bonafide work carried out by **Ms. M Prasanna (22WH1A6615), Ms. S Deepika Praharshini (22WH1A6623), Ms. B Hemanya Sai (22WH1A6636), Ms. P Jahnvi (22WH1A6639)** in partial fulfilment for the award of B. Tech degree in **Computer Science & Engineering (AI&ML), BVRIT HYDERABAD College of Engineering for Women, Bachupally, Hyderabad**, affiliated to Jawaharlal Nehru Technological University Hyderabad, Hyderabad under my guidance and supervision. The results embodied in the project work have not been submitted to any other University or Institute for the award of any degree or diploma.

**Supervisor**  
**Ms. S Annapoorna**  
**Assistant Professor**  
**Dept of CSE(AI&ML)**

**Head of the Department**  
**Dr. B. Lakshmi Praveena**  
**HOD & Professor**

## DECLARATION

We hereby declare that the work presented in this project entitled “**Project Management Dashboard**” submitted towards completion of Project work in III Year of B.Tech of CSE(AI&ML) at **BVRIT HYDERABAD College of Engineering for Women**, Hyderabad is an authentic record of our original work carried out under the guidance of **Ms. S Annapoorna, Assistant Professor, Department of CSE(AI&ML)**.

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We are extremely thankful to our Internal Guide, **Ms. S Annapoorna, Assistant Professor, CSE(AI&ML), BVRIT HYDERABAD College of Engineering for Women**, for her constant guidance and encouragement throughout the project.

Finally, we would like to thank our Major Project Coordinator, all Faculty and Staff of CSE(AI&ML) department who helped us directly or indirectly. Last but not least, we wish to acknowledge our **Parents and Friends** for giving moral strength and constant encouragement.

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## PROBLEM STATEMENT

The goal is to develop a Project Management Dashboard mobile application that allows users to manage and track their projects effectively. The app should enable users to:

- Create, view, edit, and delete projects easily, allowing for dynamic project management at every stage.
- Add and manage tasks, team members, and expenses related to each project, ensuring efficient team collaboration and task tracking.
- Track the project's budget and expenses, allowing users to keep a real-time check on spending and ensure it stays within allocated limits.
- Implement password protection for secure access to sensitive project details, ensuring that only authorized users can view or edit project information.
- Provide an intuitive, responsive UI that adapts to different screen sizes and ensures a seamless, user-friendly experience.

The app will offer a comprehensive yet easy-to-use platform for project managers and teams to manage the various facets of their projects, ensuring streamlined operations and control over project-related data.

## ABSTRACT

The **Project Management Dashboard** is a Flutter-based app designed to simplify project management by providing a centralized platform to manage project details, tasks, team members, and budgets. The app features a **Project List Screen** that displays active projects, enabling users to add, edit, view, or delete projects securely with password protection. A detailed **Project Details Screen** offers functionality to assign tasks, track expenses, and monitor project progress. The app ensures smooth user experience with responsive layouts, gradient backgrounds, and transparent app bars, complemented by Flutter's `setState()` for real-time UI updates. Dialogs handle adding or editing tasks, team members, and expenses, while snackbars provide feedback for errors like incorrect passwords. Designed for security and functionality, the app is ideal for individuals or teams seeking an efficient way to organize and track projects from initiation to completion.

## FILE STRUCTURE

project\_management\_dashboard

- |— .dart\_tool
- |— .idea
- |— android
- |— android
- |— build
- |— ios
- |— lib
  - | |— main.dart
- |— linux
- |— macos
- |— test
  - | |— widget\_test.dart
- |— web
- |— windows
- |— .gitignore
- |— .metadata
- |— analysis\_options.yaml
- |— project\_management\_dashboard.iml
- |— pubspec.lock
- |— pubspec.yaml
- |— README.md

## SOURCE CODE:

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

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

class ProjectManagementApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Project Management Dashboard',
      theme: ThemeData(primarySwatch: Colors.blue),
      debugShowCheckedModeBanner: false, // Remove debug banner
      home: ProjectListScreen(),
    );
  }
}

class ProjectListScreen extends StatefulWidget {
  @override
  _ProjectListScreenState createState() => _ProjectListScreenState();
}

class _ProjectListScreenState extends State<ProjectListScreen> {
  final List<Map<String, dynamic>> projects = [
    {'name': 'The Great Escape ', 'password': 'admin1'},
    {'name': 'Island Fortune', 'password': 'admin2'},
    {'name': 'Dish Genie', 'password': 'admin3'},
    {'name': 'Heavenly Cakes', 'password': 'admin4'},
    {'name': 'Honeybee Breeding', 'password': 'admin5'},
  ];

  String _userName = 'Profile'; // Default username
```



```

void _addProject() {
  showDialog(
    context: context,
    builder: (context) {
      String newProjectName = "";
      return AlertDialog(
        title: Text('Add New Project'),
        content: TextField(
          onChanged: (value) {
            newProjectName = value;
          },
          decoration: InputDecoration(hintText: 'Enter Project Name'),
        ),
        actions: [
          TextButton(
            onPressed: () {
              if (newProjectName.isNotEmpty) {
                setState(() {
                  projects.add({'name': newProjectName, 'password': 'admin'});
                });
              }
              Navigator.of(context).pop();
            },
            child: Text('Add'),
          ),
        ],
      );
    },
  );
}

```

```

void _editProfile() {
  showDialog(

```

```

context: context,
builder: (context) {
  TextEditingController nameController = TextEditingController(
    text:
      _userName); // Pre-fill the controller with the current username
  return AlertDialog(
    title: Text('Edit Profile'),
    content: TextField(
      controller: nameController,
      decoration: InputDecoration(hintText: 'Enter your name'),
    ),
    actions: [
      TextButton(
        onPressed: () {
          if (nameController.text.isNotEmpty) {
            setState(() {
              _userName = nameController.text; // Update the profile name
            });
          }
          Navigator.of(context).pop(); // Close the dialog
        },
        child: Text('Save'),
      ),
      TextButton(
        onPressed: () => Navigator.of(context)
          .pop(), // Close the dialog without saving
        child: Text('Cancel'),
      ),
    ],
  );
};
}

```

```
Widget _buildHeader() {  
  return Column(  
    children: [  
      SizedBox(height: 20), // Spacing above the header  
      Text(  
        'Project Management Dashboard', // App Name  
        style: TextStyle(  
          fontSize: 24, // Large font size  
          fontWeight: FontWeight.bold, // Bold font  
          color: Colors.blueAccent, // Blue text color  
        ),  
        textAlign: TextAlign.center, // Center align the text  
      ),  
      SizedBox(height: 10), // Spacing between App Name and Tagline  
      Text(  
        'Streamlining your projects with ease', // Tagline  
        style: TextStyle(  
          fontSize: 16, // Smaller font size for the tagline  
          color: Colors.grey[600], // Grey text color  
        ),  
        textAlign: TextAlign.center,  
      ),  
      SizedBox(height: 20), // Spacing below the header  
    ],  
  );  
}
```

```
Widget _buildFooter() {  
  return Container(  
    color: Colors.blueAccent.withOpacity(0.1), // Light blue background  
    padding: EdgeInsets.all(10), // Padding inside the footer  
    child: Column(  
      mainAxisAlignment:  
        MainAxisAlignment.min, // Ensures the footer takes minimum space
```

```

children: [
  Text(
    'Version 1.0.0', // Version Number
    style: TextStyle(
      fontSize: 14, // Font size for the version
      color: Colors.grey[700], // Grey text color
    ),
  ),
  SizedBox(height: 5), // Spacing between the two lines of text
  Text(
    'Powered by Flutter', // Footer note
    style: TextStyle(
      fontSize: 14, // Font size for the note
      color: Colors.grey[700], // Grey text color
    ),
  ),
],
),
);
}

```

```

void _editProject(int index) {
  showDialog(
    context: context,
    builder: (context) {
      String password = "";
      String editedName = projects[index]['name'];
      String startDate = "";
      String endDate = "";
      String budget = "";
      return AlertDialog(
        title: Text('Edit Project'),
        content: Column(
          mainAxisAlignment: MainAxisAlignment.min,

```

```
children: [
  TextField(
    onChanged: (value) {
      password = value;
    },
    obscureText: true,
    decoration: InputDecoration(hintText: 'Enter Password'),
  ),
  SizedBox(height: 10),
  TextField(
    onChanged: (value) {
      editedName = value;
    },
    decoration: InputDecoration(hintText: 'Project Name'),
  ),
  SizedBox(height: 10),
  TextField(
    onChanged: (value) {
      startDate = value;
    },
    decoration:
      InputDecoration(hintText: 'Start Date (e.g., 01 Jan 2024)'),
  ),
  SizedBox(height: 10),
  TextField(
    onChanged: (value) {
      endDate = value;
    },
    decoration:
      InputDecoration(hintText: 'End Date (e.g., 01 Dec 2024)'),
  ),
  SizedBox(height: 10),
  TextField(
    onChanged: (value) {
```

```

        budget = value;
    },
    keyboardType: TextInputType.number,
    decoration: InputDecoration(hintText: 'Budget'),
  ),
],
),
actions: [
  TextButton(
    onPressed: () {
      if (password == projects[index]['password']) {
        setState(() {
          projects[index]['name'] = editedName;
          projects[index]['startDate'] = startDate;
          projects[index]['endDate'] = endDate;
          projects[index]['budget'] = budget;
        });
        Navigator.of(context).pop();
      } else {
        ScaffoldMessenger.of(context).showSnackBar(
          SnackBar(content: Text('Incorrect Password!')),
        );
      }
    },
    child: Text('Save'),
  ),
],
);
},
);
}

void _deleteProject(int index) {
  setState(() {

```

```

        projects.removeAt(index);
    });
}

void _navigateToProject(int index) {
  showDialog(
    context: context,
    builder: (context) {
      String password = "";
      return AlertDialog(
        title: Text('Enter Password'),
        content: TextField(
          onChanged: (value) {
            password = value;
          },
          obscureText: true,
          decoration: InputDecoration(hintText: 'Enter Password'),
        ),
        actions: [
          TextButton(
            onPressed: () {
              if (password == projects[index]['password']) {
                Navigator.of(context).pop();
                Navigator.of(context).push(MaterialPageRoute(
                  builder: (context) => ProjectDetailsScreen(
                    projectTitle: projects[index]['name'],
                    projectPassword: projects[index]['password'],
                    projectStartDate:
                      projects[index]['startDate'] ?? 'Not set',
                    projectEndDate: projects[index]['endDate'] ?? 'Not set',
                    projectBudget: projects[index]['budget'] ?? '0',
                  ),
                ));
              } else {

```

```

        ScaffoldMessenger.of(context).showSnackBar(
          SnackBar(content: Text('Incorrect Password!')),
        );
      }
    },
    child: Text('Enter'),
  ),
],
);
},
);
}

```

@override

```

Widget build(BuildContext context) {
  return Container(
    decoration: BoxDecoration(
      gradient: LinearGradient(
        colors: [
          const Color(0xFFB2FEFA), // Soft turquoise
          const Color(0xFF0ED2F7), // Light blue
          const Color(0xFFA8DEFF), // Pale sky blue
        ],
        begin: Alignment.topLeft,
        end: Alignment.bottomRight,
      ),
    ),
    child: Scaffold(
      backgroundColor:
        Colors.transparent, // Transparent background for gradient
      appBar: AppBar(
        backgroundColor: Colors.transparent,
        elevation: 0,
        title: Text(

```



```

        'Project List',
        style: TextStyle(fontSize: 20, fontWeight: FontWeight.bold),
    ),
    actions: [
        Padding(
            padding: const EdgeInsets.only(
                right: 16.0), // Add some padding on the right for spacing
            child: Row(
                children: [
                    // Profile image
                    ClipOval(
                        child: Image.asset(
                            "assets/bgg.png",
                            width: 40.0,
                            height: 40.0,
                            fit: BoxFit.cover,
                        ),
                    ),
                    SizedBox(width: 8.0), // Spacing between image and name
                    Text(
                        _userName, // Display the user's name
                        style: TextStyle(fontSize: 16, fontWeight: FontWeight.w500),
                    ),
                ],
            ),
        ),
    ],
),

body: Column(
    children: [
        _buildHeader(), // This is where the header widget is placed
        Expanded(
            child: ListView.builder(

```

```

        itemCount: projects.length,
        itemBuilder: (context, index) {
          return ListTile(
            title: Text(projects[index]['name']),
            trailing: Row(
              mainAxisAlignment: MainAxisAlignment.min,
              children: [
                IconButton(
                  icon: Icon(Icons.edit),
                  onPressed: () => _editProject(index),
                ),
                IconButton(
                  icon: Icon(Icons.delete),
                  onPressed: () => _deleteProject(index),
                ),
              ],
            ),
            onTap: () => _navigateToProject(index),
          );
        },
      ),
      _buildFooter(), // Add the footer at the bottom
    ],
  ),

  floatingActionButton: FloatingActionButton(
    onPressed: _addProject,
    child: Icon(Icons.add),
  ),
),
);
}
}

```

```

class ProjectDetailsScreen extends StatefulWidget {
  final String projectTitle;
  final String projectPassword;
  final String projectStartDate;
  final String projectEndDate;
  final String projectBudget;

  ProjectDetailsScreen({
    required this.projectTitle,
    required this.projectPassword,
    required this.projectStartDate,
    required this.projectEndDate,
    required this.projectBudget,
  });

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

class _ProjectDetailsScreenState extends State<ProjectDetailsScreen> {
  late TextEditingController _projectNameController;
  late TextEditingController _startDateController;
  late TextEditingController _endDateController;
  late TextEditingController _statusController;
  late TextEditingController _budgetController;
  late TextEditingController _spentController;
  late TextEditingController _taskController;
  late TextEditingController _teamMemberController;
  List<Map<String, dynamic>> tasks = [];
  List<Map<String, dynamic>> expenses = [];
  List<Map<String, dynamic>> teamMembers = [];
  double _rating = 0.0;
  double amountSpent = 0.0;

```

```
double balanceAmount = 0.0;
```

```
@override
```

```
void initState() {
```

```
    super.initState();
```

```
    _projectNameController = TextEditingController(text: widget.projectTitle);
```

```
    _startDateController = TextEditingController(text: widget.projectStartDate);
```

```
    _endDateController = TextEditingController(text: widget.projectEndDate);
```

```
    _statusController = TextEditingController(text: 'In Progress');
```

```
    _budgetController = TextEditingController(text: widget.projectBudget);
```

```
    _spentController = TextEditingController(text: '0.0');
```

```
}
```

```
@override
```

```
void dispose() {
```

```
    _projectNameController.dispose();
```

```
    _startDateController.dispose();
```

```
    _endDateController.dispose();
```

```
    _statusController.dispose();
```

```
    _budgetController.dispose();
```

```
    _spentController.dispose();
```

```
    super.dispose();
```

```
}
```

```
void _addExpense() {
```

```
    showDialog(
```

```
        context: context,
```

```
        builder: (context) {
```

```
            String expenseName = "";
```

```
            double expenseAmount = 0.0;
```

```
            return AlertDialog(
```

```
                title: Text('Add New Expense'),
```

```
                content: Column(
```

```
                    mainAxisAlignment: MainAxisAlignment.min,
```

```

children: [
  TextField(
    onChanged: (value) {
      expenseName = value;
    },
    decoration: InputDecoration(hintText: 'Expense Name'),
  ),
  TextField(
    keyboardType: TextInputType.number,
    onChanged: (value) {
      expenseAmount = double.tryParse(value) ?? 0.0;
    },
    decoration: InputDecoration(hintText: 'Expense Amount'),
  ),
],
),
actions: [
  TextButton(
    onPressed: () {
      if (expenseName.isNotEmpty && expenseAmount > 0.0) {
        setState(() {
          expenses
            .add({'name': expenseName, 'amount': expenseAmount});
          amountSpent += expenseAmount;
          balanceAmount =
            double.parse(_budgetController.text) - amountSpent;
          _spentController.text = amountSpent.toStringAsFixed(2);
        });
      }
      Navigator.of(context).pop();
    },
    child: Text('Add'),
  ),
],

```

```
    );  
  },  
);  
}
```

```
void _addTask() {  
  showDialog(  
    context: context,  
    builder: (context) {  
      String taskName = "";  
      String taskDescription = "";  
      return StatefulBuilder(  
        builder: (context, setState) {  
          return AlertDialog(  
            title: Text('Add New Task'),  
            content: Column(  
              mainAxisAlignment: MainAxisAlignment.min,  
              children: [  
                TextField(  
                  onChanged: (value) {  
                    setState() {  
                      taskName = value;  
                    }  
                  });  
                ],  
                decoration: InputDecoration(  
                  hintText: 'Task Name',  
                  errorText: taskName.isEmpty  
                    ? 'Task Name cannot be empty'  
                    : null,  
                ),  
                ),  
                TextField(  
                  onChanged: (value) {  
                    setState() {
```

```

        taskDescription = value;
    });
},
decoration: InputDecoration(
    hintText: 'Task Description',
    errorText: taskDescription.isEmpty
        ? 'Task Description cannot be empty'
        : null,
),
),
],
),
actions: [
    TextButton(
        onPressed: () {
            if (taskName.isNotEmpty && taskDescription.isNotEmpty) {
                setState(() {
                    tasks.add({
                        'name': taskName,
                        'description': taskDescription,
                    });
                });
                Navigator.of(context).pop();
            }
        },
        child: Text('Add'),
    ),
],
);
},
);
},
);
}

```

```

void _addTeamMember() {
  showDialog(
    context: context,
    builder: (context) {
      String teamMemberName = "";
      String taskAssigned = "";
      return StatefulBuilder(
        builder: (context, setState) {
          return AlertDialog(
            title: Text('Add Team Member'),
            content: Column(
              mainAxisAlignment: MainAxisAlignment.min,
              children: [
                TextField(
                  onChanged: (value) {
                    setState() {
                      teamMemberName = value;
                    }
                  });
              ],
              decoration: InputDecoration(
                hintText: 'Team Member Name',
                errorText: teamMemberName.isEmpty
                  ? 'Team Member Name cannot be empty'
                  : null,
              ),
            ),
            TextField(
              onChanged: (value) {
                setState() {
                  taskAssigned = value;
                }
              },
              decoration: InputDecoration(

```



```

        hintText: 'Assigned Task',
        errorText: taskAssigned.isEmpty
            ? 'Assigned Task cannot be empty'
            : null,
    ),
),
],
),
actions: [
  TextButton(
    onPressed: () {
      if (teamMemberName.isNotEmpty && taskAssigned.isNotEmpty) {
        setState(() {
          teamMembers.add({
            'name': teamMemberName,
            'task': taskAssigned,
          });
        });
        Navigator.of(context).pop();
      }
    },
    child: Text('Add'),
  ),
],
);
},
);
},
);
}

```

```

@override
Widget build(BuildContext context) {
  return Container(

```

```
decoration: BoxDecoration(
  gradient: LinearGradient(
    colors: [
      const Color(0xFFB2FEFA), // Soft turquoise
      const Color(0xFF0ED2F7), // Light blue
      const Color(0xFFA8DEFF), // Pale sky blue
    ],
    begin: Alignment.topLeft,
    end: Alignment.bottomRight,
  ),
),
child: Scaffold(
  backgroundColor: Colors.transparent, // Make the Scaffold background transparent
  appBar: AppBar(
    title: Text(widget.projectTitle),
    backgroundColor: Colors.transparent, // Transparent AppBar background
    elevation: 0, // Remove AppBar shadow
  ),
  body: SingleChildScrollView(
    child: Column(
      children: [
        // Project Name
        ListTile(
          title: Text('Project Name:'),
          subtitle: Text(_projectNameController.text),
          trailing: IconButton(
            icon: Icon(Icons.edit),
            onPressed: () {
              showDialog(
                context: context,
                builder: (context) {
                  String newName = _projectNameController.text;
                  return AlertDialog(
                    title: Text('Edit Project Name'),
```

```

        content: TextField(
          onChanged: (value) {
            newName = value;
          },
          decoration: InputDecoration(
            hintText: 'Enter New Name',
            errorText: validateProjectName(newName),
          ),
        ),
        actions: [
          TextButton(
            onPressed: () {
              if (validateProjectName(newName) == null) {
                setState(() {
                  _projectNameController.text = newName;
                });
                Navigator.of(context).pop();
              }
            },
            child: Text('Save'),
          ),
        ],
      );
    },
  );
),

```

// Start Date

```

ListTile(
  title: Text('Start Date:'),
  subtitle: Text(_startDateController.text),
  trailing: IconButton(

```

```
icon: Icon(Icons.edit),
onPressed: () {
  showDialog(
    context: context,
    builder: (context) {
      String newStartDate = _startDateController.text;
      return AlertDialog(
        title: Text('Edit Start Date'),
        content: TextField(
          onChanged: (value) {
            newStartDate = value;
          },
          decoration: InputDecoration(
            hintText: 'Enter New Start Date',
            errorText: validateDate(newStartDate),
          ),
        ),
      ),
      actions: [
        TextButton(
          onPressed: () {
            if (validateDate(newStartDate) == null) {
              setState(() {
                _startDateController.text = newStartDate;
              });
              Navigator.of(context).pop();
            }
          },
          child: Text('Save'),
        ),
      ],
    );
  },
);
},
```

```

    ),
    ),

// End Date
ListTile(
  title: Text('End Date:'),
  subtitle: Text(_endDateController.text),
  trailing: IconButton(
    icon: Icon(Icons.edit),
    onPressed: () {
      showDialog(
        context: context,
        builder: (context) {
          String newEndDate = _endDateController.text;
          return AlertDialog(
            title: Text('Edit End Date'),
            content: TextField(
              onChanged: (value) {
                newEndDate = value;
              },
              decoration: InputDecoration(
                hintText: 'Enter New End Date',
                errorText: validateDate(newEndDate),
              ),
            ),
          ),
          actions: [
            TextButton(
              onPressed: () {
                if (validateDate(newEndDate) == null) {
                  setState(() {
                    _endDateController.text = newEndDate;
                  });
                  Navigator.of(context).pop();
                }
              }
            )
          ]
        )
      );
    }
  ),
);

```

```

        },
        child: Text('Save'),
      ),
    ],
  );
},
);
},
),
),

```

```

// Budget

```

```

ListTile(
  title: Text('Budget:'),
  subtitle: Text(_budgetController.text),
  trailing: IconButton(
    icon: Icon(Icons.edit),
    onPressed: () {
      showDialog(
        context: context,
        builder: (context) {
          String newBudget = _budgetController.text;
          return AlertDialog(
            title: Text('Edit Budget'),
            content: TextField(
              onChanged: (value) {
                newBudget = value;
              },
              decoration: InputDecoration(
                hintText: 'Enter New Budget',
                errorText: validateBudget(newBudget),
              ),
            ),
          ),
          actions: [

```

```

        TextButton(
          onPressed: () {
            if (validateBudget(newBudget) == null) {
              setState(() {
                _budgetController.text = newBudget;
              });
              Navigator.of(context).pop();
            }
          },
          child: Text('Save'),
        ),
      ],
    );
  },
);
),
),

```

// Amount Spent

```

ListTile(
  title: Text('Amount Spent:'),
  subtitle: Text(_spentController.text),
),

```

// Balance Amount

```

ListTile(
  title: Text('Balance Amount:'),
  subtitle: Text(balanceAmount.toStringAsFixed(2)),
),

```

// Add Expense button

```

ElevatedButton(
  onPressed: _addExpense,

```

```
        child: Text('Add Expense'),
      ),
      SizedBox(height: 20),

      // Add Task button
      ElevatedButton(
        onPressed: _addTask,
        child: Text('Add Task'),
      ),
      SizedBox(height: 20),

      // Add Team Member button
      ElevatedButton(
        onPressed: _addTeamMember,
        child: Text('Add Team Member'),
      ),

      // Tasks List
      ListTile(
        title: Text('Tasks'),
        subtitle: Text(tasks.isEmpty ? '' : ''),
        trailing: IconButton(
          icon: Icon(Icons.arrow_forward),
          onPressed: () {
            showDialog(
              context: context,
              builder: (context) {
                return AlertDialog(
                  title: Text('Tasks'),
                  content: Column(
                    mainAxisAlignment: MainAxisAlignment.min,
                    children: tasks
                      .map((task) => Text(
                        '${task['name']} - ${task['description']}'))
                  ),
                );
              },
            );
          },
        ),
      ),
    ),
  ),
);
```



```

        .toList(),
    ),
);
},
);
},
),
),

// Team Members List
ListTile(
  title: Text('Team Members'),
  subtitle: Text(teamMembers.isEmpty ? '' : ''),
  trailing: IconButton(
    icon: Icon(Icons.arrow_forward),
    onPressed: () {
      showDialog(
        context: context,
        builder: (context) {
          return AlertDialog(
            title: Text('Team Members'),
            content: Column(
              mainAxisAlignment: MainAxisAlignment.min,
              children: teamMembers
                .map((member) => Text(
                  '${member['name']} - ${member['task']}'))
                .toList(),
            ),
          );
        },
      );
    },
  ),
),
),

```

```

// Expenses List
ListTile(
  title: Text('Expenses'),
  subtitle: Text(expenses.isEmpty ? '' : ''),
  trailing: IconButton(
    icon: Icon(Icons.arrow_forward),
    onPressed: () {
      showDialog(
        context: context,
        builder: (context) {
          return AlertDialog(
            title: Text('Expenses'),
            content: Column(
              mainAxisAlignment: MainAxisAlignment.min,
              children: expenses
                .map((expense) => Text(
                  '${expense['name']} - \${expense['amount']}'))
                .toList(),
            ),
          );
        },
      );
    },
  ),
),
],
),
),
);
}

```

```

// Validation functions

```

```
String? validateProjectName(String? value) {  
    if (value == null || value.isEmpty) {  
        return 'Project name cannot be empty';  
    }  
    return null;  
}
```

```
String? validateDate(String? value) {  
    // Regex for date validation (MM/DD/YYYY)  
    RegExp regExp = RegExp(r'^(0[1-9]|1[0-2])\V([0-2][0-9]|3[01])\V\d{4}$');  
    if (value == null || value.isEmpty) {  
        return 'Date cannot be empty';  
    } else if (!regExp.hasMatch(value)) {  
        return 'Enter a valid date (MM/DD/YYYY)';  
    }  
    return null;  
}
```

```
String? validateBudget(String? value) {  
    if (value == null || value.isEmpty) {  
        return 'Budget cannot be empty';  
    }  
    if (double.tryParse(value) == null || double.parse(value) <= 0) {  
        return 'Enter a valid positive number for budget';  
    }  
    return null;  
}  
}
```

OUTPUT:



