

# Project Name : Password Store Manager

## Team Member :

Likitha Magham (Developer, Tester)

Swethasarayu Simhadri (Frontend, Database)

Bhavana Arla (Backend, SQLite)

# Overview:

The **Password Store Manager** is a secure and user-friendly application designed to help users generate, store, retrieve, and manage their passwords efficiently. The system allows users to create strong, random passwords based on specific criteria, such as length and complexity, ensuring the security of their accounts. These passwords are then securely stored in a local **SQLite** database, allowing for easy retrieval when needed. Additionally, the application offers a straightforward method for users to delete passwords when they are no longer required, although it does not support password updates or regeneration. The project is built using **C#** and **.NET** for backend development, with **SQLite** as the database, ensuring a reliable and secure environment for password management. Our goal is to simplify the process of managing passwords while maintaining a high level of security and usability.

# Project Timeline :

## **Week 1-2: Project Planning and Design**

Define project requirements, both functional (password storage, generation, retrieval) and non-functional (security, performance).

Design system architecture, including database schema (SQLite for storing passwords).

## **Week 3: Initial Backend Setup**

Set up backend environment with C#, .NET, and SQLite.

Implement basic password storage and retrieval functionalities.

## **Week 4: Implement Password Generation and Deletion**

Build and test the password generation algorithm.

Implement the delete functionality for passwords and the app.

# Project Timeline :

## **4. Week 5: Frontend Development**

Create the user interface for password management (e.g., forms for input and password display).

Integrate the backend with the frontend (connecting UI with C# and SQLite).

## **5. Week 6: Testing and Security Review**

Test all functionalities (generation, storage, retrieval, deletion).

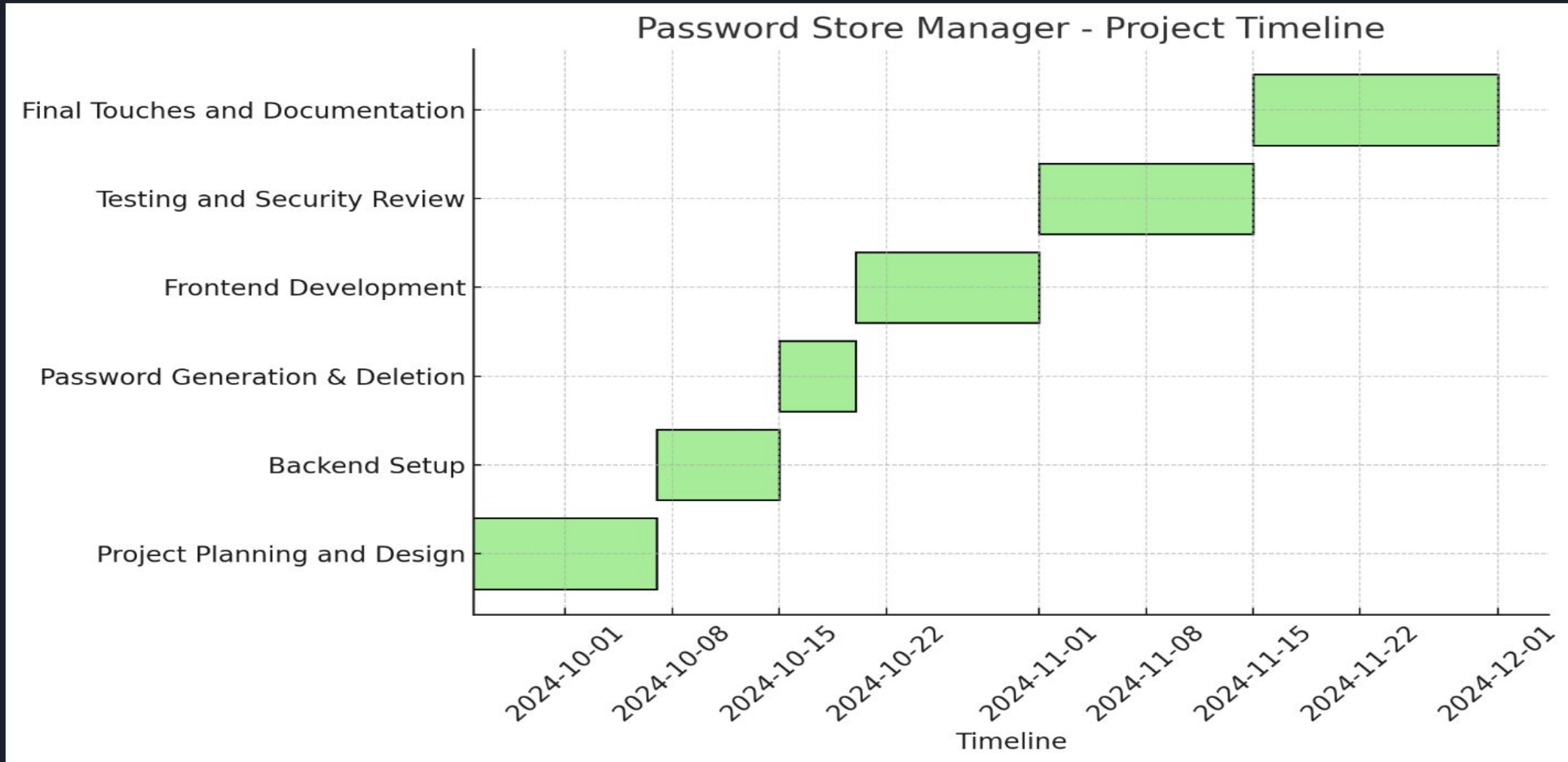
Perform security checks to ensure passwords are stored securely (e.g., hashing).

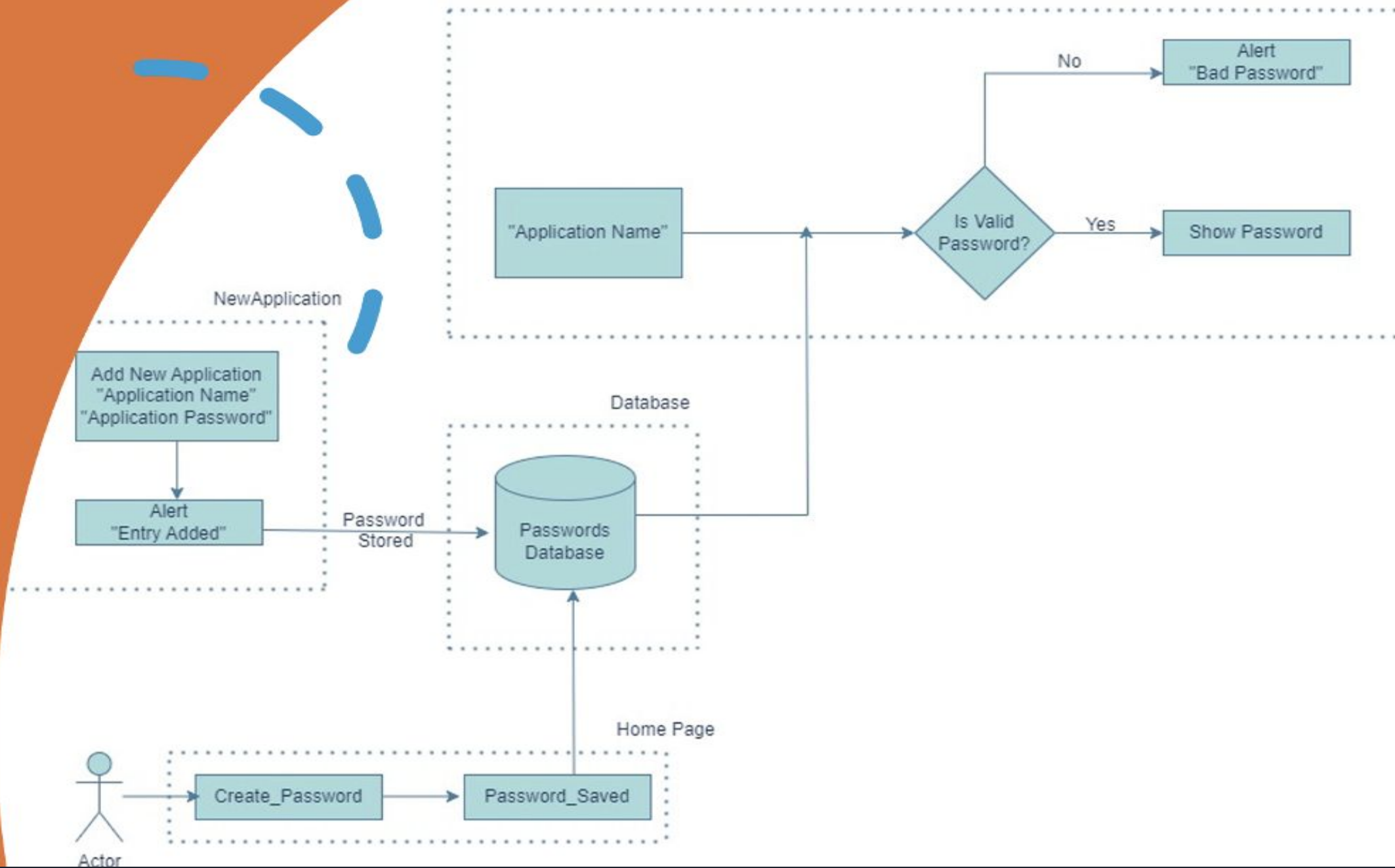
## **6. Week 7: Final Touches and Documentation**

Polish the UI, improve user experience, and finalize any remaining issues.

Prepare project documentation and upload slides to the repository.

# Gantt Chart :





# Demonstration

Main Page : Home Page



Home

## Welcome to Password Manager!

Create your password

Password

Save

Make sure to remember this password, without these you cannot view any entry created



# Password Store Page

AllPasswordsPage.xaml.cs 9+ X

AllPasswordsPage.xaml.cs > ...

0 references

9 public class BooleanToVisibilityConverter : IValueConverter

10 {

0 references

11 public object Convert(object value, Type targetType, object parameter, CultureInfo culture)

12 {

13 if (value is bool boolValue)

14 {

15 return boolValue ? Visibility.Visible : Visibility.Collapsed;

16 }

17 return Visibility.Collapsed;

18 }

19 }

0 references

20 public object ConvertBack(object value, Type targetType, object parameter, CultureInfo culture)

21 {

22 throw new NotImplementedException();

23 }

24 }

25 }

26 }

27 }

1 reference

28 public partial class AllPasswordsPage : ContentPage

29 {

0 references

30 public AllPasswordsPage()

31 {

32 InitializeComponent();

33 BindingContext = App.passwordViewModel;

34 }

35 }

0 references

37 void Expander\_ExpandedChanged(System.Object sender, CommunityToolkit.Maui.Core.ExpandedChangedEventArgs e)

38 {

39 }

40 }

41 }

42 }

PROBLEMS 10 OUTPUT DEBUG CONSOLE TERMINAL PORTS SEARCH ERROR

Find Aa ab.\* No results ↑ ↓

2024-10-15 17:50:51.374 [info] Log level: Info

2024-10-15 17:51:08.053 [info] Log level: Info

an Debug Any CPU Cloud Code - No Project Share Code Link -- NORMAL --

Ln 84, Col 1 Spaces: 4 UTF-8 LF {} C# ⚡ AI Code Chat

AllPasswordsPage.xaml.cs 9+ X

AllPasswordsPage.xaml.cs > ...

0 references

28 public partial class AllPasswordsPage : ContentPage

37 void Expander\_ExpandedChanged(System.Object sender, CommunityToolkit.Maui.Core.ExpandedChangedEventArgs e)

40 }

41 }

42 }

0 references

43 async void Button\_Clicked\_2(System.Object sender, System.EventArgs e)

44 {

45 var btn = (Button)sender;

46 var app = (PasswordViewModel)BindingContext;

47 app.RemoveSingle(int.Parse(btn.ClassId));

48 app.InitData();

49 await DisplayAlert("Alert", "Item Deleted", "Okay");

50 }

51 }

52 }

0 references

53 async void Button\_Clicked(System.Object sender, System.EventArgs e)

54 {

55 var btn = (Button)sender;

56 var app = (PasswordViewModel)BindingContext;

57 string result = await DisplayPromptAsync("UNLOCK PASSWORD", "Enter the unlock password !");

58 var savedPassword = Preferences.Get("password", null);

59 if(savedPassword == null)

60 {

61 await DisplayAlert("Alert", "No Global Password saved", "Okay");

62 await Shell.Current.GoToAsync("//MainPage");

63 return;

64 }

65 if (result == savedPassword)

66 {

67 var allAppLists = app.historyOut;

68 var item = allAppLists.First((e) => e.id.ToString() == btn.ClassId);

69 await DisplayAlert(\$"{item.Title} Password", \$"Password : {item.Password}", "Okay");

70 }

71 else

72 {

73 await DisplayAlert("Alert", "BAD PASSWORD", "Okay");

74 }

PROBLEMS 10 OUTPUT DEBUG CONSOLE TERMINAL PORTS SEARCH ERROR

Find Aa ab.\* No results ↑ ↓

2024-10-15 17:50:51.374 [info] Log level: Info

2024-10-15 17:51:08.053 [info] Log level: Info

in Debug Any CPU Cloud Code - No Project Share Code Link -- NORMAL --

Ln 84, Col 1 Spaces: 4 UTF-8 LF {} C# ⚡ AI Code Chat

## Welcome to Password Manager!

Create your password

.....

Save

Make sure to remember this password, without these you cannot view any entry created

.NET

**Success**

Password saved!

OK



Password Store

Refresh

# SQLite Server ( Backend)

AllPasswordsPage.xaml.cs 9+DatabaseService.cs 1 X

ViewModel > DatabaseService.cs > ...

> sqlAa 7 of 11

```
1 using System;
2 using System.Linq.Expressions;
3 using SQLite;
4 using System.Linq;
5
6 namespace nitesh_passman.ViewModel
7 {
8     6 references
9     public class DatabaseService
10     {
11         8 references
12         SQLiteConnection Database;
13         1 reference
14         public const string dbName = "niteshpassman3.db3";
15
16         1 reference
17         public DatabaseService()
18         {
19
20         1 reference
21         public const SQLite.SQLiteOpenFlags DbFlags =
22             // open the database in read/write mode
23             SQLite.SQLiteOpenFlags.ReadWrite |
24             // create the database if it doesn't exist
25             SQLite.SQLiteOpenFlags.Create |
26             // enable multi-threaded database access
27             SQLite.SQLiteOpenFlags.SharedCache;
28
29         1 reference
30         public static string dbPath =>
31             Path.Combine(Microsoft.Maui.Storage.FileSystem.AppDataDirectory, dbName);
32
33         4 references
34         void refreshDB()
35         {
36             try
37             {
38                 if (Database is not null)
39                     return;
40
41                 Database = new SQLiteConnection(dbPath, DbFlags);
42                 Database.CreateTable<PasswordModel>();
43             }
44             catch (Exception ex)
45             {
46                 Console.WriteLine(ex.Message);
47             }
48         }
49
50         1 reference
51         public List<PasswordModel> GetAllExpression()
52         {
53             refreshDB();
54             return Database.Table<PasswordModel>().ToList();
55         }
56
57         1 reference
58         public void SaveItemAsync(PasswordModel pass)
59         {
60             refreshDB();
61             Database.Insert(pass);
62         }
63     }
64 }
```

PROBLEMS 19

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

SEARCH ERROR

Find

2024-10-15 17:50:51.374 [info] Log level: Info
2024-10-15 17:51:08.053 [info] Log level: Info

Debug Any CPU Cloud Code - No Project Share Code Link -- NORMAL -- Ln 8, Col 1 Spaces: 4 UTF-8 LF C# AI Code Chat

AllPasswordsPage.xaml.cs 9+DatabaseService.cs 1 X

ViewModel > DatabaseService.cs > ...

> sqlAa 7 of 11

```
8 public class DatabaseService
18     public const SQLite.SQLiteOpenFlags DbFlags =
25     {
26         1 reference
27         public static string dbPath =>
28             Path.Combine(Microsoft.Maui.Storage.FileSystem.AppDataDirectory, dbName);
29
30         4 references
31         void refreshDB()
32         {
33             try
34             {
35                 if (Database is not null)
36                     return;
37
38                 Database = new SQLiteConnection(dbPath, DbFlags);
39                 Database.CreateTable<PasswordModel>();
40             }
41             catch (Exception ex)
42             {
43                 Console.WriteLine(ex.Message);
44             }
45         }
46
47         1 reference
48         public List<PasswordModel> GetAllExpression()
49         {
50             refreshDB();
51             return Database.Table<PasswordModel>().ToList();
52         }
53
54         1 reference
55         public void SaveItemAsync(PasswordModel pass)
56         {
57             refreshDB();
58             Database.Insert(pass);
59         }
60     }
61 }
```

PROBLEMS 19

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

SEARCH ERROR

Find

2024-10-15 17:50:51.374 [info] Log level: Info
2024-10-15 17:51:08.053 [info] Log level: Info

Debug Any CPU Cloud Code - No Project Share Code Link -- NORMAL -- Ln 8, Col 1 Spaces: 4 UTF-8 LF C# AI Code Chat

Thank you

