Income Tracker Application

# Dependencies

- Python 3.x  
- PyQt5: Provides the graphical user interface components.  
- yahoo\_fin: Used to fetch live exchange rates.

# Features

- Login Page: Simple authentication to access the main menu.  
- Income Addition: Allows users to add income entries with date, amount, and currency.  
- Income Display: Displays all recorded income entries.  
- Total Income Calculation: Calculates the total income for each currency.  
- Exchange Rate Fetching: Fetches the current USD to TRY exchange rate using yahoo\_fin.

# Modules

## 1. IncomeData

Manages income data storage, retrieval, and exchange rate fetching.

- \_\_init\_\_(): Initializes the daily income dictionary and fetches the current exchange rate.  
- fetch\_exchange\_rate(): Fetches the current USD to TRY exchange rate.  
- add\_income(currency, amount, date): Adds a new income entry.  
- get\_total\_income(): Calculates the total income for each currency.  
- load\_income\_data(): Loads income data from a JSON file.  
- save\_income\_data(): Saves income data to a JSON file.

## 2. IncomeTracker (QMainWindow)

Main application window, managing the user interface and interactions.

- \_\_init\_\_(data): Initializes the main window and sets up the login page.  
- get\_date(): Returns the current date in a specific format.  
- setup\_login\_page(): Sets up the login interface.  
- add\_form\_field(layout, label\_text, widget): Adds a form field to the specified layout.  
- create\_button(text, clicked\_func, is\_default=False): Creates a styled QPushButton.  
- login(): Authenticates the user and transitions to the main menu.  
- setup\_main\_menu(): Sets up the main menu interface.  
- action\_add\_income(): Sets up the interface for adding income.  
- submit\_income(): Validates and submits the income entry.  
- action\_display\_income(): Displays all recorded income entries.  
- action\_total\_income(): Calculates and displays the total income.  
- action\_exit(): Exits the application.  
- closeEvent(event): Overrides the close event to save income data before exiting.

# Execution

To run the Income Tracker application:  
1. Ensure all dependencies are installed.  
2. Execute the script in a Python environment.  
  
Note: This application uses a simple authentication mechanism for demonstration purposes and should be enhanced for real-world use.