PhilatelistGuide

Overview

PhilatelistGuide is a Windows Forms application designed for stamp collectors to manage their stamp collections. The application allows users to add, update, and remove stamps from their collection and save all the information in a JSON file. It also features a user-friendly graphical user interface (GUI) for easy interaction.

Features

- **Manage Collection**: Add, update, and remove stamps from the collection.
- **Philatelist Management**: Manage the collection of different philatelists (stamp collectors).
- **JSON Storage**: All data is stored in a JSON file, making it easy to save and load the collection.
- **GUI**: The application features an intuitive GUI using Windows Forms, making it accessible for users of all experience levels.

Requirements

- **.NET Framework**: Ensure that .NET Framework is installed on your machine.
- **Visual Studio**: Recommended for running and modifying the project.

Installation

1. **Open the Project**:

   - Open the `PhilatelistGuide.sln` file in Visual Studio.

2. **Build the Project**:

   - Use Visual Studio to build the solution (`Build > Build Solution`).

3. **Run the Application**:

   - Start the application by pressing `F5` or selecting `Debug > Start Debugging`.

Usage

Main Form

- **Manage Philatelists**: Click the "Manage Philatelists" button to open a new form where you can manage the philatelists and their stamp collections.
- **Exit**: Click the "Exit" button to close the application.

ManagePhilatelistForm

The **ManagePhilatelistForm** allows you to view, add, update, and remove philatelists and manage their respective stamp collections.

- **View Philatelists**: The form lists all the philatelists in the system. Selecting a philatelist will display their details and collection.
- **Add Philatelist**: Enter the details of a new philatelist and click "Add Philatelist" to include them in the system.
- **Update Philatelist**: Modify the details of a selected philatelist and click "Update Philatelist" to save the changes.
- **Remove Philatelist**: Select a philatelist from the list and click "Remove Philatelist" to delete them from the system.
- **Manage Collection**: Select a philatelist and click "Manage Collection" to open the **ManageCollectionForm** for managing that philatelist's stamp collection.

Manage Collection Form

The **ManageCollectionForm** allows you to manage the stamp collection for a selected philatelist.

- **Add Stamp**: Input the stamp details (Country, Face Value, Year of Issue, Circulation, Features) and click "Add Stamp" to add the stamp to the collection.
- **Remove Stamp**: Select a stamp from the list and click "Remove Stamp" to delete it from the collection.
- **Update Stamp**: Modify the details of the selected stamp and click "Update Stamp" to save the changes.
- **Stamp List**: The list displays all the stamps in the collection. Selecting a stamp from the list will load its details into the input fields for easy editing.

JSON File Management

- The application automatically loads the collection from a JSON file (`philatelists.json`) when it starts.
- Any changes made to the collection are automatically saved to the JSON file.

Code Structure

- **MainForm.cs**: Contains the code for the main interface of the application.
- **ManagePhilatelistForm.cs**: Manages the list of philatelists and provides options to view, add, update, or remove them.
- **ManageCollectionForm.cs**: Manages the stamp collection for a selected philatelist.
- **Philatelist.cs**: Represents a philatelist, including properties for managing their stamp collection.
- **Stamp.cs**: Represents a stamp with properties like country, face value, year of issue, circulation, and features.
- **CollectionManager.cs**: Handles the overall management of multiple philatelists and their collections.
- **JSONHandler.cs**: Provides methods for loading and saving the philatelists' collections to and from a JSON file.

Example Workflow

1. **Start the Application**: Run the application to load the existing collection from `philatelists.json`.
2. **Manage Philatelists**: Click the "Manage Philatelists" button to open the philatelist management form.
3. **Add a Philatelist**: Enter the details of a new philatelist and click "Add Philatelist".
4. **Manage Collection**: Select a philatelist and open the **ManageCollectionForm** to add or update stamps in their collection.

5. **Save and Exit**: The application automatically saves any changes to `philatelists.json` upon exit.