Programming III – Fall 2022

Course Project: Topic

Team Information

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Project Description

Our application allows the user to browse a virtual pet adoption center and to adopt one or multiple pets. The user can refresh the pet display page to see randomly selected pets from the pet database and click on a pet to see details such as age, type, adoption status, and description of the pet. They can then proceed and adopt the pet if they wish, by filling out an adoption form.

Development Approach

1. **Understanding the problem.**

We want to develop a WPF application that will be able to show pets available in the adoption center and let the user adopt one or many pets.

1. **Formulating the problem.**

We want a pet database that will keep track of which pet has been adopted or not. In the main window, the pets need to be randomly displayed to the user. The user can only adopt an available pet and their form details must be valid for the adoption to be completed.

1. **Developing the application \ algorithm.**
2. Create a pet class which holds information about a pet such as name, type, age, adoption status etc.
3. Create a pet database which will hold a list of the pets in the adoption center.
4. Create a main window that will allow the user to see pets from the database 4 at a time.
5. Create a randomizer so 4 random pets from the database are chosen and shown on the main window.
6. Create a pet detail page that will be shown when the user clicks on a pet to show extra information about the pet.
7. Create an adopt button on the pet detail page that will allow the user to navigate to the adoption form.
8. Create an adoption form that will ask for information such as the user’s name, address, date of birth, etc.
9. Update the pet’s status to “adopted”.
10. **Implementing the application \algorithm.**
11. **Testing.**

OOP Design

Talk about the classes you need to create for the application and what is the purpose of each class. Include the UML class diagram in this section. The UML class diagram should include the relations between the created classes. Do not mention the WPF classes (Window, etc.)

Contributions

What did each team member do?    
How was the work in the project divided?

App Snapshots

A computer screen with a computer code and a computer screen

Description automatically generatedThe main window before any UI design.

The pet details window before any UI design.A screenshot of a pet adoption center

Description automatically generated

Future Work

We could allow the user to put their own pet up for adoption. The only issue is we’re not sure how the user could upload their own pet picture.

Appendix A: Team Contract

Submitted team contract goes here.

Appendix B: UML Class Diagram

* DO NOT PLACE A  LINK TO THE DIAGRAM.
* Do not include WPF created classes in the class diagram.
* The diagram should be placed in the document.