

Information System of Online Pet Shelter

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1 Problem Definition

It is not a secret that information technology became an integral part of our daily lives and increasingly pervades all areas of human activity. Progress is made not every year, but daily. Different kinds of information systems serve to meet an ever-increasing need for information. The main functional purpose of information system is the provision of information processes, in particular the creation of information, its spreading and circulation, use, storage and disposal [2].

The use of information systems optimizes processes in various enterprises, institutions and organizations. Charities aren't an exception. They use such innovative technologies to expand, simplify their activities and attract more volunteers. Judging from the latest trends, we can state that charitable activity is becoming more and more popular, especially among young generation of Ukrainians. There is large number of charitable foundations that operate in the country, and many citizens are involved in their activities. The assistance they provide greatly contributes to solving a wide range of problems that have existed in Ukraine for years [1].

With the aim to contribute to the development of information systems in charity area, it was decided to develop an Online Pet Shelter, which will greatly simplify the process of adoption and will provide various services to the pet owners.

2 Topicality

The problem of the safe coexistence of human with stray pets on the streets remains today a pressing issue. On the one hand, animals are a part of the biological waste disposal chain. On the other hand, they can be a source of zoonosis agents, as well as show aggression towards human. In Ukraine, the practice of pet adoption is only gaining popularity. Such innovative online solutions are not yet common but are already being actively used in the US and European countries. From the example of the above countries, we conclude that this area is quite promising.

3 Results of the Study

Today, the software development process focuses on mobile development, as smartphones are becoming an integral part of modern society. That is why the idea of Online Pet Shelter was decided to be implemented as a mobile application on the Android platform. The development environment is Android Studio. The Java language is selected as the programming language. The overall architecture of the system will include:

- Mobile app
- Database, server

Thus, the user sees the front-end of the application and interacts through the interface with the back-end. The server and database provide the user with the list of all available pets as well as possible services for pet owners. The database must be available uninterruptedly and should provide high reliability. SQLite is a good choice in this case. These technologies have been selected to ensure trouble-free and reliable operation of this service.

The application will allow shelters to enter the data in the database and edit or delete the detailed information about pets. However, not only shelters, but also individual pet owners can submit an animal for adoption when needed, which attracts wider range of users. The application will help people to browse the catalog of pets and choose a pet for adoption easily and quickly, without even leaving their home. In addition, the app will have additional features such as ordering a canine handler and temporary keeping their pet in a shelter. A Use Case diagram is shown in Figure 1.

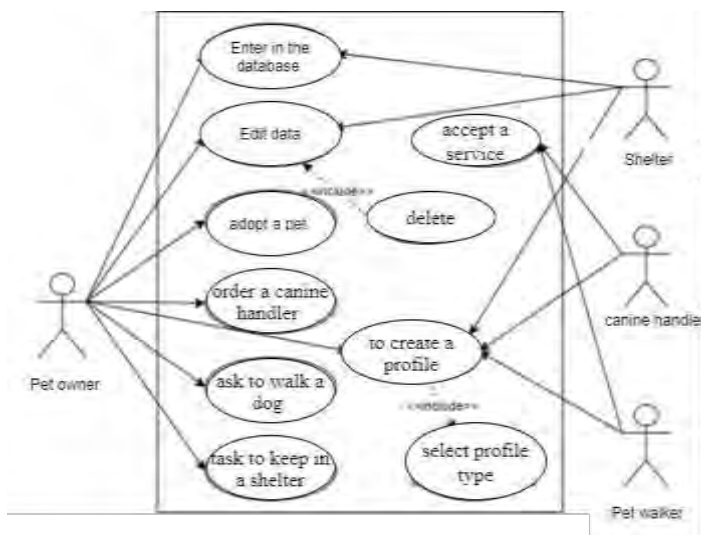


Fig. 9. Use Case Diagram for Online Pet Shelter

It is important to note that the main effect of such application is saving of time and efforts as there is no need to visit each individual shelter to choose an animal. One of the main advantages is the propagation of pet adoption from the shelter. The simplicity of the app and easy use will result in willingness of users to try such an online service. It is called a social effect. It means that we contribute to charity and help pets to find a new home.

On the balance, information system of Online Pet Shelter will change the way people find their pets and propagate adoption. This area is quite promising. In this way, the problem of the safe coexistence of human with stray pets can be solved. Innovative technologies will ensure trouble-free and reliable operation of Online Pet Shelter.

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