OBJECT ORIENTED DEVELOPMENT 1

- *User Requirement Specification*

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A. GLOBAL DESCRIPTION

The team includes the following members: Nikolay Nikolaev, Taurius Antanevičius, Filippo Francesco Nardocci and Anh Le from ICT department, Fontys Hogeschool Eindhoven. Our team aims to create a solution for collecting, organising and handling the information of the animals at the main animal shelter of the city where abandoned or stray animals are looked after. A software application is our final decision.

The animal shelter should have a name, an address, a telephone number and an e-mail-address. In our application, the user is able to add an animal to the system by inputting every information of that animal and search for an animal based on its RFID tag. RFID tag serves as unique identification of every animal. Besides, the app allows the animals to be adopted. However, whether the adopter is the previous or the new owner should be specified so that the final fee can be calculated. Depending on the kind of animals, the matched buttons ("Walking" for the dog and "Updating for the cat") will be shown. In the case the user would like to follow the list of animals, the filter should be chosen so that the app can show the appropriate list. General overview report is also displayed through the app.

B. GENERAL RULES

1. Animals can be dogs and cats for the initial version of the application.
2. RFID tags are used as unique identifications to track lost animals.
3. Some animals that are brought into the shelter already have an RFID tag which will be saved inside the system.
4. Animals not having a tag when entering the shelter, have to get one.
5. For every animal, the application should store a brief description of it, the date the animal is brought in, and a location where it was found.
6. For dogs the application should register the last date each dog has been walked.
7. For cats extra information should be stored, i.e. "Cannot live with other cats", "Not suitable for children"

8. After being more than 20 days in the shelter, an animal can be adopted by a new owner.
9. If the animal had a previous owner, this person is then replaced by the new owner after adoption after 20 days
10. Only if the animal was registered with a previous owner, this person can claim the animal during the first 20 days.
11. If an owner comes after 20 days, only if the animal has not been adopted yet by anybody else, they will be able to reclaim their animal
12. If an an previous owner claims their animal, the fee for dogs is 10 euros plus 2 euros per day since the day animal was brought to the shelter (the cost of walking the dog); for cats, the fee is always 15 euro
13. If a new owner adapt an animal, they are asked to contribute with a fee of 20 euros for dogs and 25 euros for cats
14. An animal that is brought to a shelter, currently, does not have an owner. The owner of the animal is also specified but only if his/her information has been already saved inside the database (The animal might be lost for the 2nd time).

C. USE CASES

1. Add an animal (Anh)

- ***Actor:*** User.
- ***Goal Level:*** Sea Level
- ***Main Success Scenario:***
  1. User clicks on “Add animal” button
  2. System display the GUI for adding an animal
  3. User chooses the type of animal, inputs the description, location of finding, chooses the brought in date
  4. User clicks on “Add” button
  5. System requires the RFID tag
  6. System obtains the RFID tag
  7. System saves the animal

- ***Extensions:***

  3. User chooses the type of animal, inputs the description, location of finding, chooses the brought in date, inputs the extra information if type Cat is chosen

     3a.1 User returns to MSS at step 4.

  5a. System requires enough information to be input.

     5a.1 System returns to MSS at step 3

  7. System fails to save the animal

     7a.1 System returns to MSS at step 5

2. Adopt an animal (Anh)

- ***Actor:*** User.
- ***Goal Level:*** Sea Level
- ***Main Success Scenario:***
  1. System clicks on "Adopt/Claim" button
  2. System displays the GUI for adopting/ claiming an animal
  3. User clicks on "Search for an animal" button
  4. System requires the RFID tag of the animal
  5. System obtains the RFID tag
  6. System shows the information about the animal
  7. User inputs the email of an owner
  8. User chooses "Adopt" option on GUI
  9. System shows the message about the adoption fee and that the adoption is successful.
- ***Extensions:***

  6a. System fails to show the information about the animal

  6a.1 System displays the message of being unable to find the animal

  6a.2 System returns to MSS at 4.

  9a. System shows the message that the adoption is unsuccessful

  9a.1 Customer may choose another option on the same GUI

3. Claim an animal (Anh)

- ***Actor:*** User.
- ***Goal Level:*** Sea Level
- ***Main Success Scenario:***

1. System clicks on “Adopt/Claim” button
2. System displays the GUI for adopting/ claiming an animal
3. User clicks on “Search for an animal” button
4. System requires the RFID tag of the animal
5. System obtains the RFID tag
6. System shows the information about the animal
7. User inputs the email of an owner
8. User clicks on “Claim” button on GUI
9. System shows the message about the claiming fee and that the claiming is successful.

- ***Extensions:***

  6a. System fails to show the information about the animal

  6a.1 System displays the message of being unable to find the animal

  6a. 2 System returns to MSS at 4.

  9a. System shows the message that the claiming is unsuccessful

  9a.1 Customer may choose another option on the same GUI

4. Register an owner (Taurius)

- ***Actor:*** User
- ***Goal Level:*** Sea Level
- ***Main Success Scenario:***
  1. User presses on “register owner” button.
  2. User types in last name and email to according fields.
  3. User presses “register” button.
  4. System creates new owner in a system.
- **Extensions:**

  3a. Information in one of the fields are missing.
  1. System shows a message.
  2. User returns to MSS step 2.

5. Update main information of the animal (Taurius)

- ***Actor:*** User
- ***Goal Level:*** Sea Level
- ***Main Success Scenario:***
  1. User presses on “adopt/claim” button.
  2. System displays a new panel.

3. User presses a button on a new panel “search for Animal” to be able to scan an animal’s RFID.
4. System shows message “please put the RFID of animal under the scanner”.
5. System detects an animal and displays it’s information in corresponding fields.
6. System enables available buttons.
7. User might change the information of an animal.
8. User clicks “Update main info” button and updates animal’s main information.

6. Update cat’s extra information (Taurius)

- ***Actor:*** User
- ***Goal Level:*** Sea Level
- ***Main Success Scenario:***

1. User presses on “adopt/claim” button.
2. System displays a new panel.
3. User presses a button on a new panel “search for Animal” to be able to scan an animal’s RFID.
4. System shows message “please put the RFID of animal under the scanner”.
5. System detects an animal and displays it’s information in corresponding fields.
6. System enables available buttons.
7. User changes text in “extra information” field.
8. User clicks on “udpate extra info” button.
9. System changes new extra information of the cat in the system.

7. Update last time a dog had a walk. (Taurius)

- ***Actor:*** User
- ***Goal Level:*** Sea Level
- ***Main Success Scenario:***

1. User presses on “adopt/claim” button.
2. System displays a new panel.
3. User presses a button on a new panel “search for Animal” to be able to scan an animal’s RFID.

4. System shows message “please put the RFID of animal under the scanner”.
5. System detects an animal and displays it’s information in corresponding fields.
6. System enables available buttons.
7. User presses “walk” button.
8. System updates last time a dog had a walk to right now.

8. List animals based on filter*(Adoptable, Not-yet-adoptable) (Taurius)*

- ➢ ***Actor:*** User
- ❖ ***Goal Level:*** Sea Level
- ❖ ***Main Success Scenario:***
  1. User presses “list Of Animals” button.
  2. System displays a new panel.
  3. User selects either “adoptable animals” or “not-yet-adoptable animals” button.
  4. System displays the list of animals in a list box based on the user decision.

9. List animals based on *Owner’s last name (Taurius)*

- ❖ ***Actor:*** User
- ❖ ***Goal Level:*** Sea Level
- ❖ ***Main Success Scenario:***
  1. User presses “list Of Animals” button.
  2. System displays a new panel.
  3. User writes owner’s last name in a textbox under the “owner’s last name” label.
  4. User presses “Find owner’s animal(s) button.
  5. System displays a list of owner’s animals in a list box.
- ❖ ***Extension:***

1.A. Owner’s last name is invalid.

1. System displays message that there is no owner with that last name.

2. User returns to MSS 3.