





### **Umm Al-Qura University**

Faculty of Computer Science and Information Systems

### Software Engineering Project Report

Software Engineering (1) 14013303-3

"تَبَنَّى" Application

# Supervised by:

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### Introduction

قال تعالى: " (مَا مِن دَابَّةٍ فِي الأَرْضِ إلاَّ عَلَى اللهِ رِزْقُهَا وَيَعْلَمُ مُسْتَقَرَّهَا وَمُسْتَوْدَعَهَا كُلِّ فِي كِتَابٍ مُّبِينٍ) " (هود ٦).

Kindness to Animals our goal, our ambition to be the first and best website to help pets and encourage people to be kind to them. We hope that our program will serve all people by engaging them in one website to facilitate pet care and cuddling them in one place.

The idea of our project is to build website that provide facilitate of sale and purchase or adoption of pets permanently or temporarily, as our site helps to distribute pets by type, gender, age, price, region and city, this way the process of selling-buying-adopting will be more easier according to the customer's desire, and the contact information of the owner of the pets is added so that the customer can easily access it.

Our site solves many problems, including the problem of areas where it is easy for each customers to find the appropriate area or the closest so it is easy for them to adopt and buy or sale also it helps those who don't want to have them anymore or cannot take care of them for a while, so they can offer them for adoption or sale. Our idea can also help lost or homeless pets so that they can be offered for adoption or sale through the site.

The idea of our project doesn't depend on collecting information from other sources.

To create our website we need no code called Adalo Because the program provides the database inside it without the use of external programs and also because of the lack of time because many of the course materials require other software projects.

### Glossary

| Buyer          | A person who buy pets.   |
|----------------|--|
| Seller         | A person who sells pets.   |
| Adopter        | A person who takes another's pets and brings it up as their own. |
| Adoption agent | A person who offers the pets for adoption.                       |
| Viewer         | A person who browses the site without logging in.                |

# Functional Requirements User Requirements And System Requirements

### **User requirements:**

1. The system should provide join option to the user

#### System requirements:

- 1.1 The system ask to fill user information like Full name ,user name, email, phone number, password.
- 1.2 The system sends message error if the user entered any wrong format or leave any field empty.
- 1.3 The system saves user information in the database.

### **User requirements:**

2. The system provides a login for users who have previously registered accounts.

- 2.1 The system allows Buyer, Seller, Adopter and Adoption agent to login by their email and password.
- 2.2 The system checks email and password from the database
- 2.3 The system open home page if the email and password are present in the database.
- 2.4 The system sends message error if the email and password are not present in the database.

3. The system allows the user to view pets' information.

### System requirements:

- 3.1 The System provides options to create account and login.
- 3.2 The system gets all the information in database which all pets are registered.
- 3.3 The System show pictures of pets and details such as region, operation type, pet's type in the home page.
- 3.4 If the user clicks on the pet, it will be taken to another page that displays all the pet's information.
- 3.4 The filters will appear at the top of the home page.
- 3.5 Every two pets with their data appear beside to each other in the home page.

### **User requirements:**

4. The system provides filters so that users can optimize results according to specific metadata.

- 4.1 Filters used in the system: operation type, pet's type, gender, age, region, city, price.
- 4.2 Filters appear at the top of the home page of the site.
- 4.3 When click on the filter, a drop-down list appears and The user can choose an item from the dropdown list.
- 4.4 Pets appear based on the user's choice of filters.

5. The system let adoption agents and sellers to register information of pets.

### System requirements:

- 5.1 The System provide option to register information of pets such as, operation type, pet's type, gender, age, region, city, price, picture.
- 5.2 The user chooses if he wants to sell the pet or offer it for adoption. If he chooses to sell, he will have the price field.
- 5.3 The system disables some fields for pets such as gender and age, which may not need to fill it by the seller or the adoption agent.
- 5.4 The System will register all information of pets written by seller or adoption agent on database.

#### **User requirements:**

6. The system provide Edit information pets.

- 6.1 The system provide option edit information of pets to sellers and adoption agents after registering the pet's information.
- 6.2 The system allows the seller or the adoption agent to edit just their own pet's information.
- 6.2 The system will update information of pets in the database.
- 6.3 The system will update information of pets in the home page.

7. The system provides a payment service to the buyer.

#### System requirements:

- 7.1 The system will provide ways for payments such as PayPal, credit card, STC pay.
- 7.2 The system will delete from home page the pet's information that has been paid of price.
- 7.3 The system will delete the pet's information that has been paid of price from database.

### **User requirements:**

8. The system requires check out for adoption.

- 8.1 The system provides check out to adoption after he chosen the pet.
- 8.2 The system will delete the pet's information that has been checked out from home page.
- 8.3 The system will delete the pet's information that has been checked out from database.
- 8.4 There is an rating button on the page. If adopter clicks on it, the pet agent rating page will appear.

9. The system provide feedback and rating after completing the service.

- 9.1 The system provide feedback and rating for some user such as buyer after payment, adoption after checkout.
- 9.2 The user can rate the site using stars and write a comment in the text box is optional.
- 9.3 The rating of the users will be stored in the database.
- 9.4 The system gets rating of the adoption agent and seller from database to be show When the user clicks on the pet information on the home page

### **Non-Functional Requirements**

### 1-Maintainability

The system's ability to get modified without any issues.

### 2-Reliability

The system continuously performs the specified functions without failure.

### 3-Usability

The ease with which the user can learn, operate, prepare through interaction with a system.

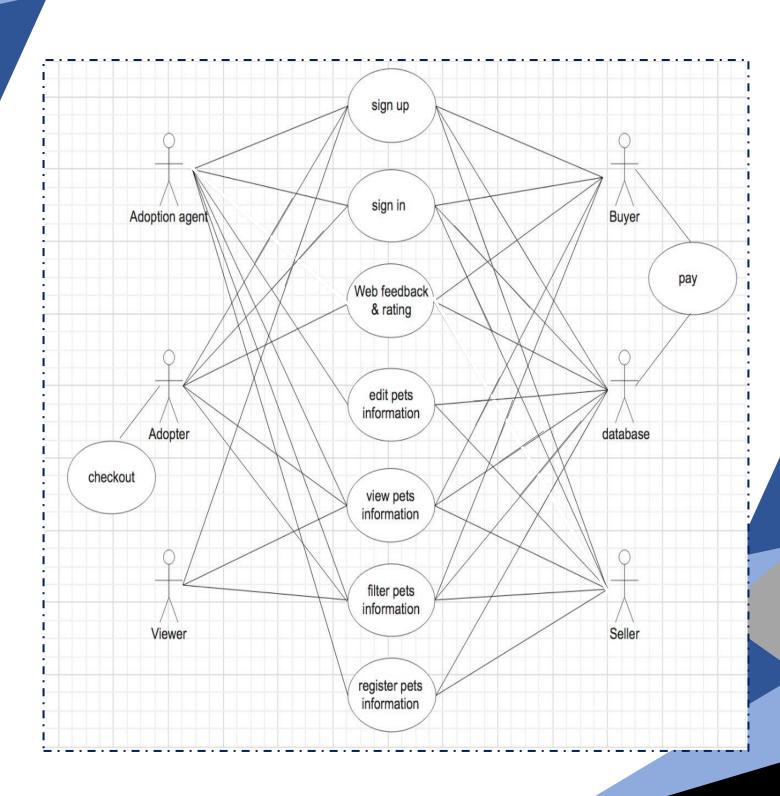
### 4-Efficiency

The system can handles capacity, quantity and response time.

### 5-availability

The site is available 24 hours a day, every day of the week.

### **Use Case Diagram**



### **Scenarios**

# Sign up:

| Sign up        |  |
|----------------|--|
| Actors:        | Buyer, Seller, Adopter, Adoption agent, Viewer   |
| Description:   | <ol> <li>The system ask to fill user information like full name ,username, email, phone number, password.</li> <li>The system sends message error if the user entered any wrong format or leave any field empty.</li> <li>The system save user information in the database.</li> <li>There is an option for the user on the sign up page to go to the sign in page if he has an account already registered.</li> </ol> |
| Data:          | full name ,username, email, phone number, password.  |
| Pre-condition: | None.  |
| Output:        | Sign in .  |
| Comments:      | The system will allow the user to use these services buy, sell, adopt or offering adoption.  |

# Sign in:

| Sign in        |  |
|----------------|--|
| Actors:        | Buyer, Seller, Adopter, Adoption agent.  |
| Description:   | <ol> <li>The system allows Buyer, Seller, Adopter and Adoption agent to login by their email and password.</li> <li>The system check email and password from the database</li> <li>The system open home page if the email and password are present in the database.</li> <li>The system sends message error if the email and password are not present in the database.</li> <li>There is an option for the user on the sign in page to go to the sign up page if he does not have an account previously registered.</li> </ol> |
| Data:          | Sign in information from users (email and password.)   |
| Pre-condition: | Sign up.   |
| Output:        | Sign in to home page.  |
| Comments:      | The system will allow the user to use these services buy, sell, adopt or offering adoption.  |

# Filter pets' information:

| Filter pets' information |   |
|--------------------------|---|
| Actors:                  | adoption agent, Adopter, Buyer, seller, Viewer.   |
| Description:             | <ol> <li>Filters appear at the top of the home page of the site.</li> <li>When click on the filter, a drop-down list appears, and the user can choose from it.</li> <li>Pets appear based on the user's choice of filters.</li> </ol> |
| Data:                    | operation type, pet's type ,gender, age, region ,city, price.   |
| Pre-condition:           | None.   |
| Output:                  | Pets information as per user choice of filters.   |
| Comments:                | The user can choose more than one filter at the same time.  |

# View pets' information:

|                | View pets information  |  |
|----------------|--|--|
| Actors:        | Buyer, Seller, Adopter, Adoption agent, Viewer.  |  |
| Description:   | <ol> <li>The system gets all the information in database which all pets are registered.</li> <li>The System show pictures of pets and details such as pet's type ,operation type, region in the home page.</li> <li>Every two pets with their data appear beside to each other in the home page.</li> <li>If the user clicks on the pet , it will be taken to another page that displays all the pet's information.</li> </ol> |  |
| Data:          | picture, pet's type, operation type and region.  |  |
| Pre-condition: | None.  |  |
| Output:        | Depending on the filters used, pets results will appear and If the user clicks on the pet more information will be shown .   |  |
| Comments:      | In the case that the user is a Viewer and click on the buy or adoption button, it will take him directly to the sign up page, In the case that the user is logged into the system and clicks on the buy or adoption button, the system will allow him to provide the service he wants.   |  |

# Register pets' information:

| Register pets' information: |   |
|-----------------------------|---|
| Actors:                     | Seller, Adoption agent.   |
| Description:                | <ol> <li>After logging in, the option to record pets information appears.</li> <li>when selecting it, a form appears to fill in the data.</li> <li>When the pet's agent chooses the buy option from operation type select, the price field will appear.</li> <li>After filling the data, it is saved in database and displayed on the site, and the option to modify is shown to the seller or the adoption agent.</li> </ol> |
| Data:                       | pets' information and details such as operation type, pet's type ,gender, age, region ,city, picture.   |
| Pre-condition:              | sign in.  |
| Output:                     | pets' information appears on the home page.   |
| Comments:                   | Disable some pet's information fields that the seller and adoption agent don't need to fill it such as gender and age .   |

# Edit pets' information:

| Edit pets' information |  |
|------------------------|--|
| Actors:                | Seller, Adoption agent .   |
| Description:           | 1. After the seller or the adoption agent has registered the pet information, he can modify the registered information.  2. After the seller or the adoption agent edit the information, it is updated in the data base and updated on the site. |
| Data:                  | All pet's information.   |
| Pre-condition:         | Sign in + The user has already registered pets to the site.  |
| Output:                | The modified pet's data is updated.  |
| Comments:              | The system allows the seller or the adoption agent to edit just their own pet's information.   |

# Pay:

| pay            |   |
|----------------|---|
| Actors:        | Buyer.  |
| Description:   | <ol> <li>After selecting the purchase element, the payment method options are shown.</li> <li>After selecting the appropriate payment method for the user, payment shall be made, and the order invoice will appear.</li> </ol> |
| Data:          | paying is attached to standard electronic paying methods such as PayPal, Credit Card, STC pay.  |
| Pre-condition: | Sign in .   |
| Output:        | show invoice.   |
| Comments:      | Payment shall be made after choosing the item the user wishes to purchase.  |

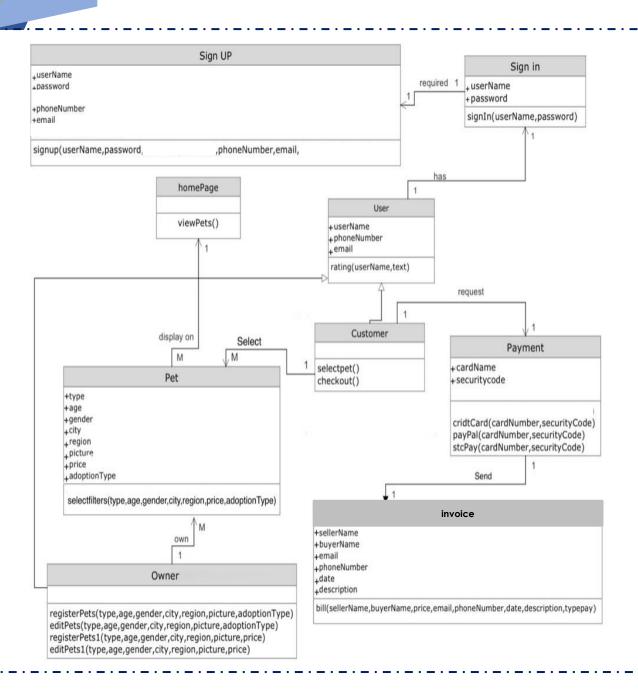
# Checkout:

| checkout       |  |
|----------------|--|
| Actors:        | Adopter.   |
| Description:   | <ol> <li>The system provide check out to adoption after he chosen the pet.</li> <li>The system will delete the pet's information that has been checked out from home page.</li> <li>The system will delete the pet's information that has been checked out from database.</li> <li>There is an rating button on the page. If adopter clicks on it, the pet agent rating page will appear.</li> </ol> |
| Data:          | None.  |
| Pre-condition: | Sign in.   |
| Output:        | Request completed.   |
| Comments:      | Remove pet from database.  |

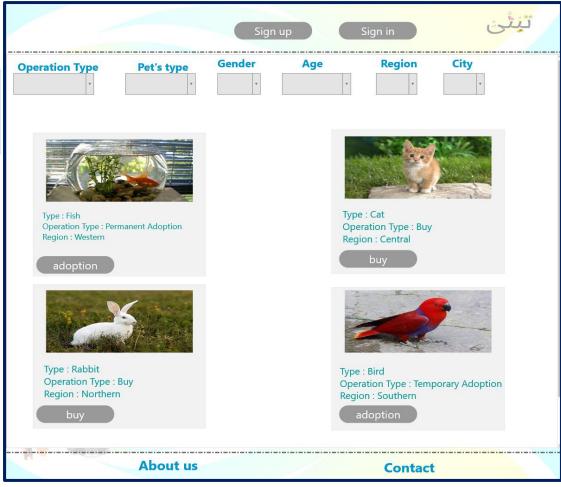
# Rating:

| Rating         |  |
|----------------|--|
| Actors:        | Adopter, Buyer.  |
| Description:   | 1. After completing the payment process for the buyer or the checkout process for the adopter, the system allows the rating agent of pet by choosing stars from 1 to 5 according to the user's satisfaction and writing a text and it is optional for the user and. 2. the rating of user will save in database. |
| Data:          | Text box and stars chosen by the user according to his rating.   |
| Pre-condition: | The Adopter and Buyer can rate the agent of pet after the adoption or buy is completed.  |
| Output:        | The rating will be shown in view pet's information page.   |
| Comments:      | None.  |

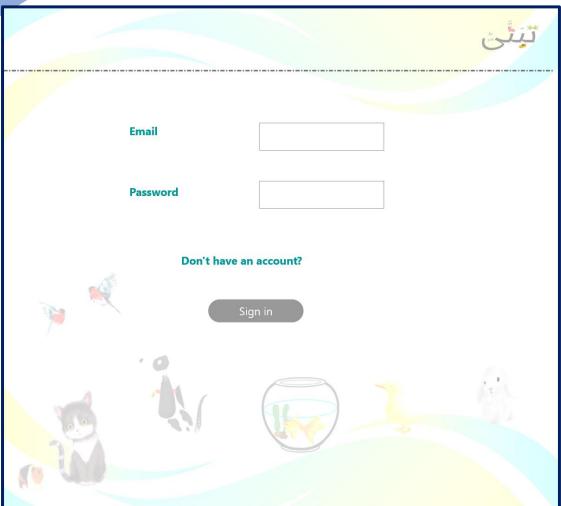
### **Class Diagram**

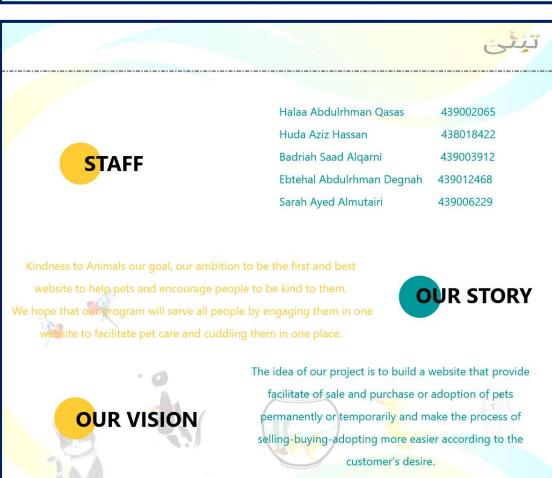


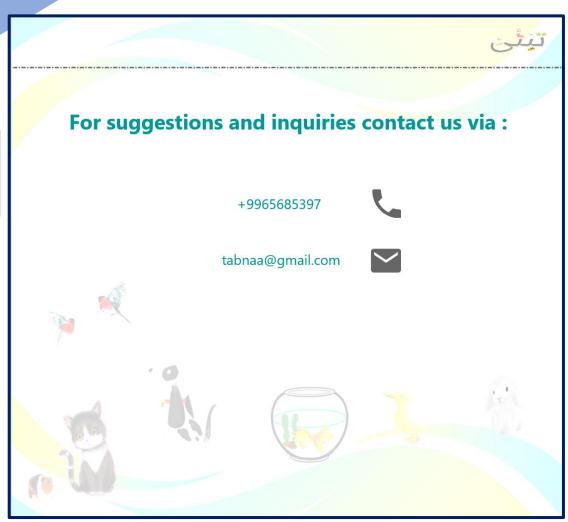
### **Design Phase**

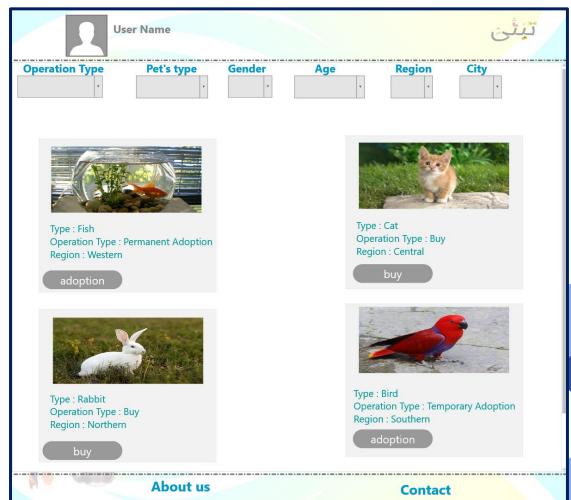


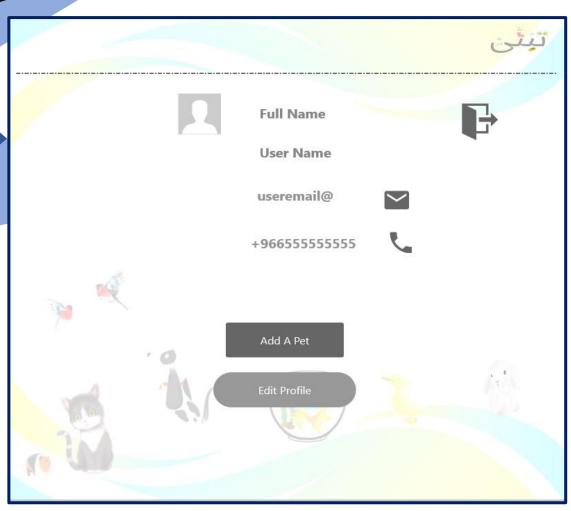
|                   |           |                            | ٽيٽَي |
|-------------------|-----------|----------------------------|-------|
|                   | Full Name |                            |       |
|                   | User Name |                            |       |
|                   | Email     |                            |       |
|                   | Phone     |                            |       |
| The second second | Password  |                            |       |
| 0.0               |           | Have an account ?  Sign up |       |

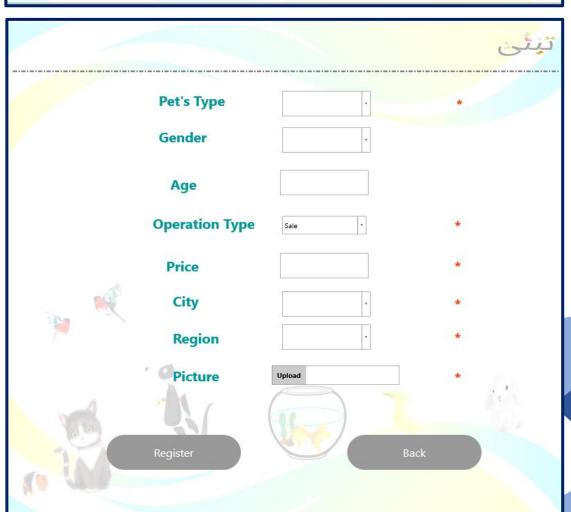


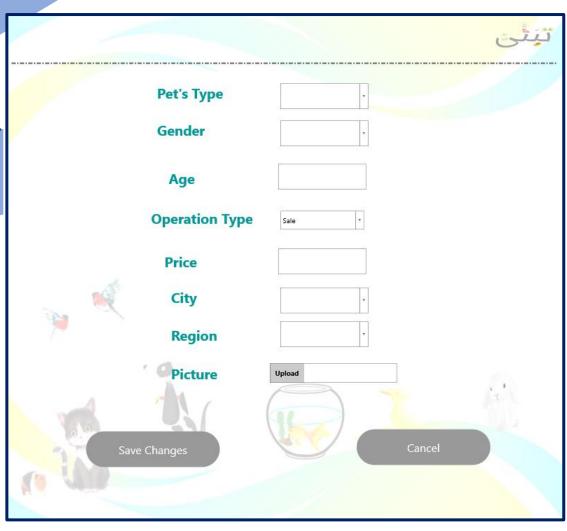


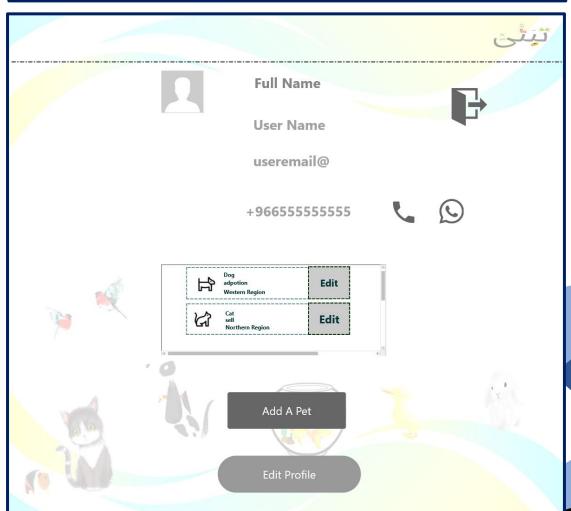














Operation Type: Sale

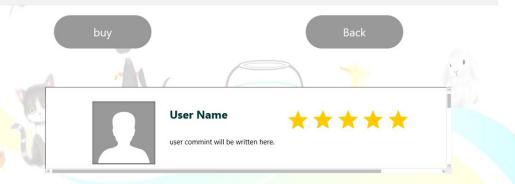
Type : Cat

Gender : Female Age : six months City : Riyadh Region : Central

Price: 300

Seller : Adam Muhammed Contact no : 055438383







Type: Cat Gender: Female Age: six months City: Riyadh Region: Central Price: 300

Seller: Adam Muhammed Contact no: 055438383



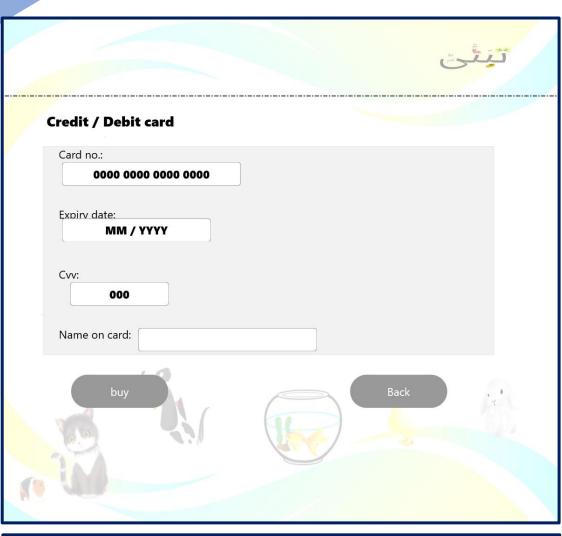
- Credit / Debit card payment
- PayPal
- Stc Pay

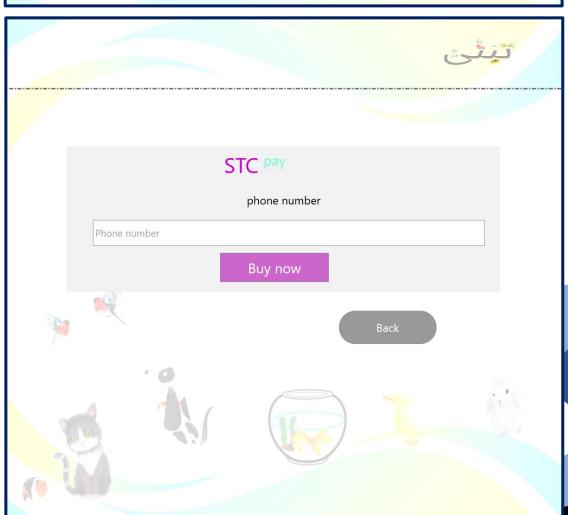


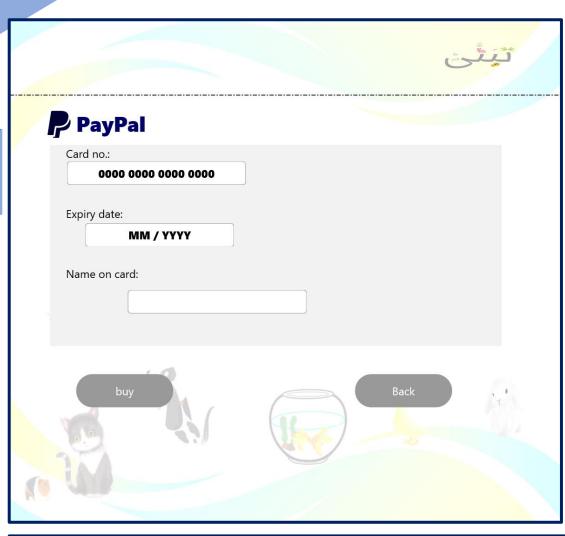


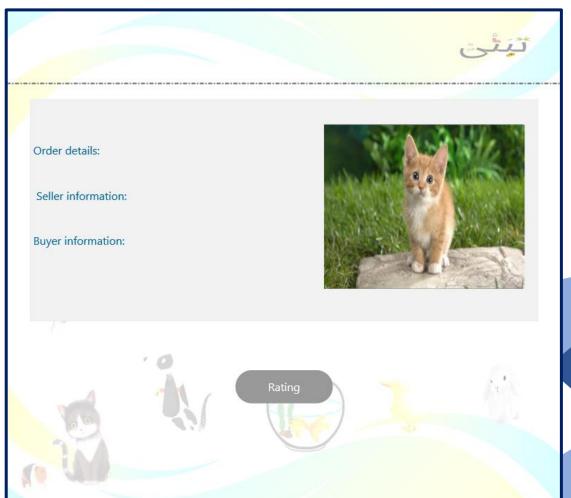


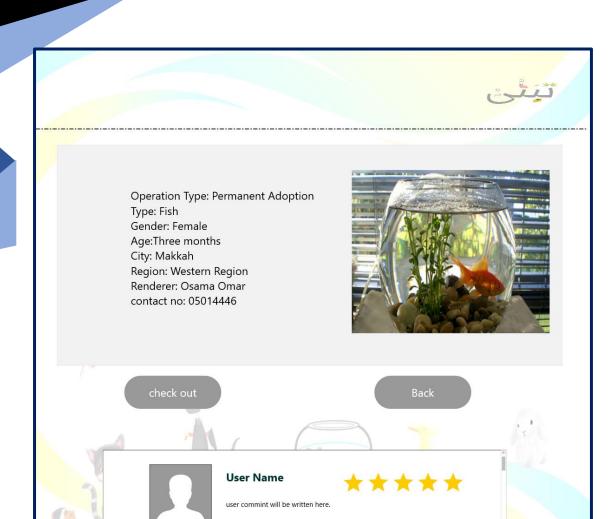


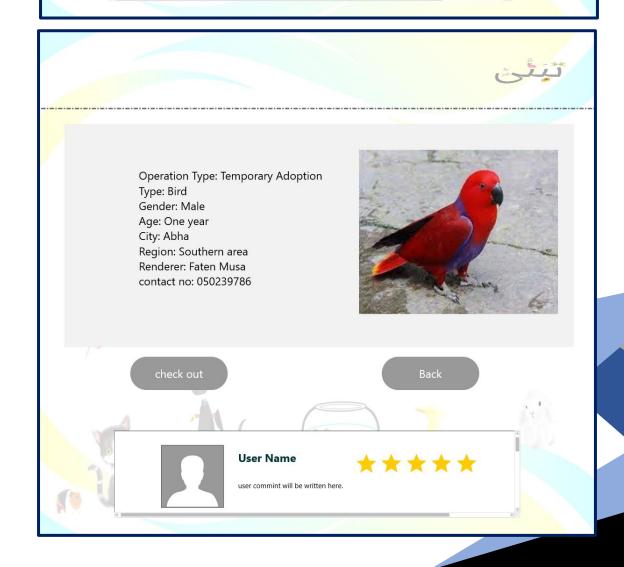


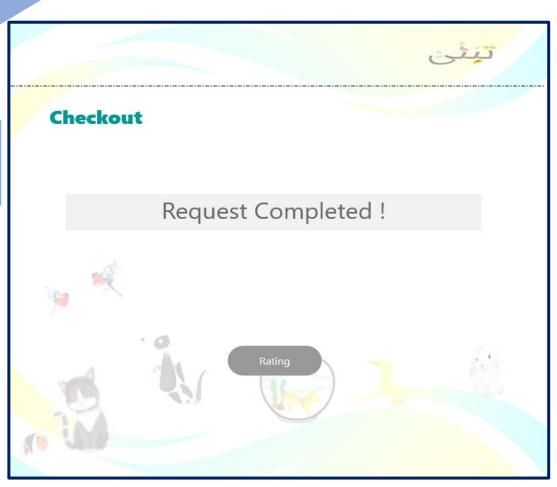


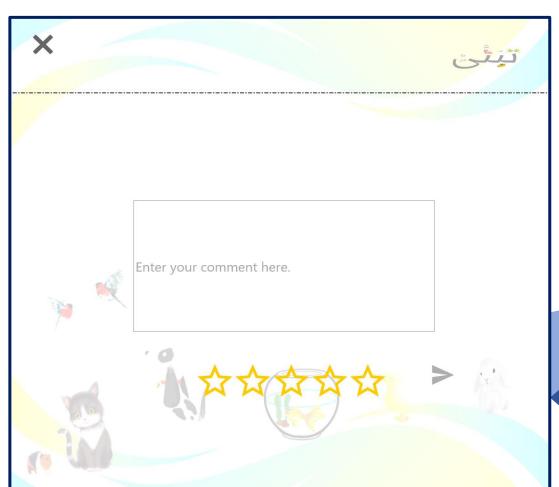




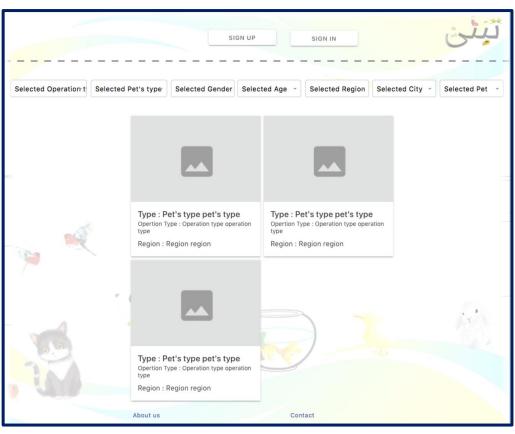


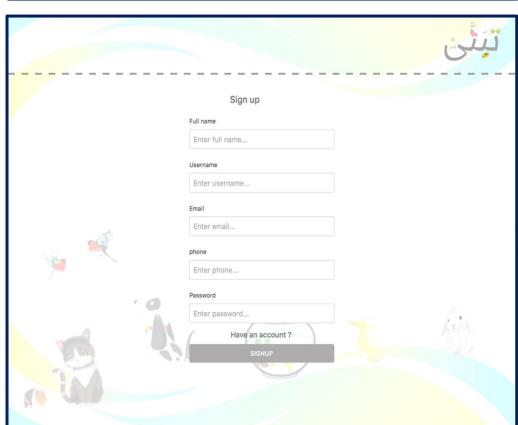






### **Implementation Phase**

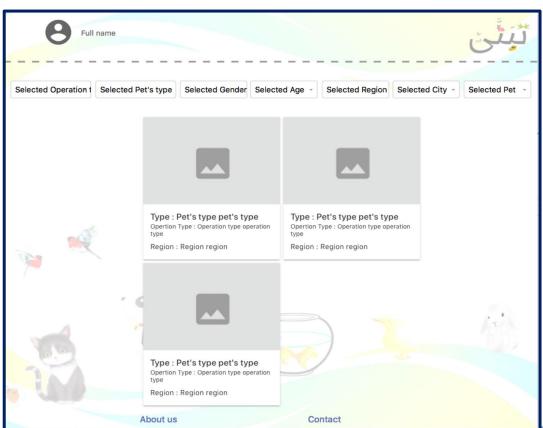




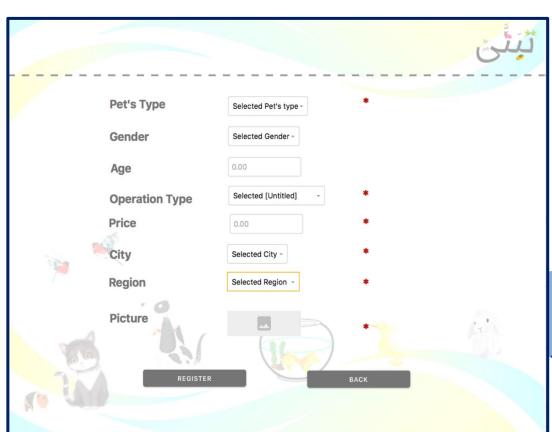








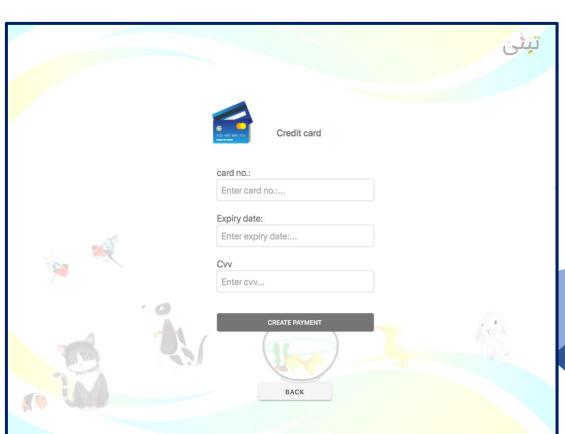


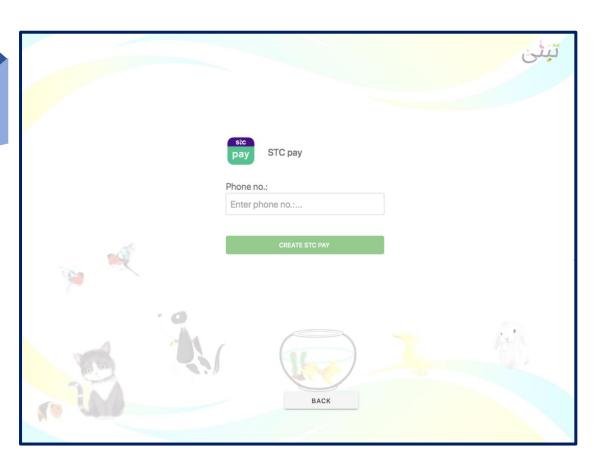


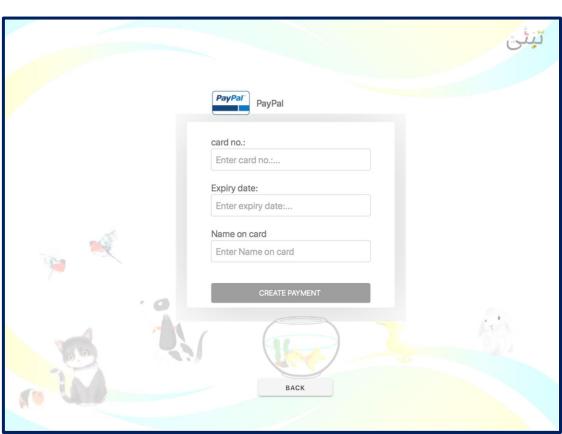




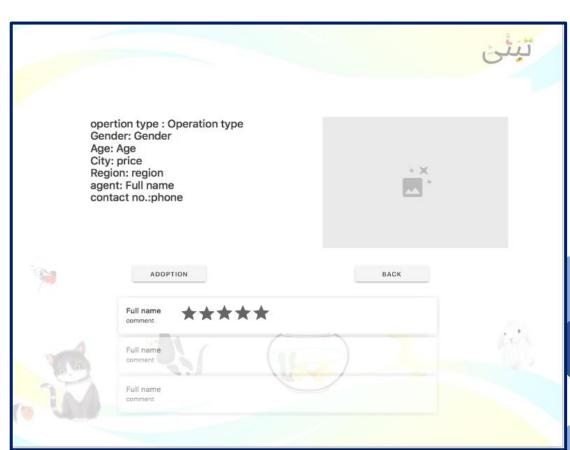


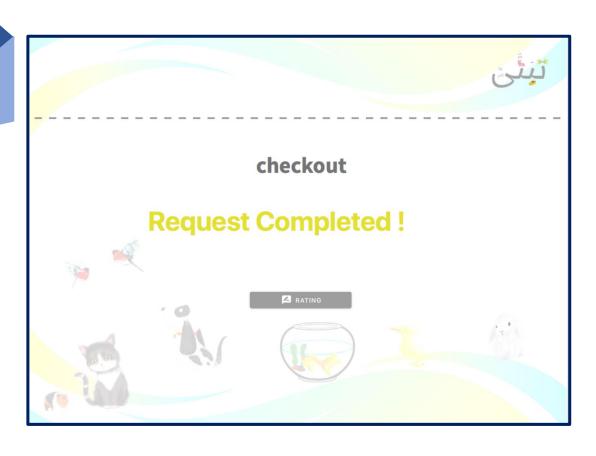


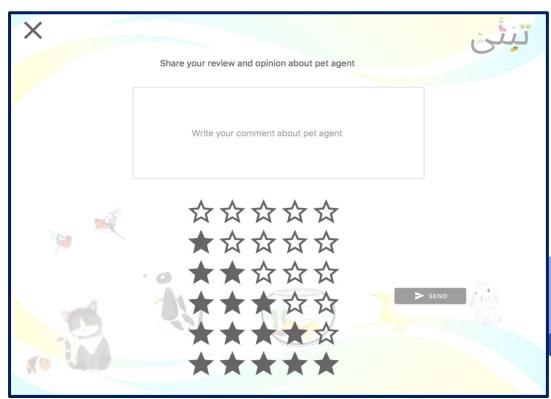












# **Tasks Table**

|                | Halah    | Huda     | Badriah  | Sarah    | Ebtehal  |
|----------------|----------|----------|----------|----------|----------|
| Logo           |          |          |          | <b>✓</b> |          |
| Introduction   | <b>*</b> | <b>*</b> | ✓        | <b>✓</b> | ✓        |
| Functional     | <b>~</b> | <b>~</b> | ✓        |          |          |
| Requirements   |          |          |          |          |          |
| Non-Functional | <b>~</b> | <b>~</b> | <b>~</b> | <b>~</b> |          |
| Requirements   |          |          |          |          |          |
| Use Case       | <b>~</b> | <b>✓</b> | <b>~</b> |          | <b>~</b> |
| Diagram        |          |          |          |          |          |
| Scenarios      | ✓        | ✓        | ✓        |          | ✓        |
| Class Diagram  | <b>*</b> | <b>*</b> |          |          |          |
| Initial report |          |          | ✓        |          |          |
| Prototype      | <b>*</b> | <b>✓</b> | <b>~</b> | <b>✓</b> | ✓        |
| Implementation | ✓        | <b>✓</b> | <b>~</b> | <b>~</b> | ✓        |
| Database       | <b>*</b> |          |          |          |          |
| Screen shots   |          |          |          | <b>✓</b> |          |
| of prototype   |          |          |          |          |          |
| Screen shots   |          |          |          |          | <b>~</b> |
| of website     |          |          |          |          |          |
| Final report   | ✓        | ✓        | ✓        |          |          |
| Presentation   | <b>~</b> | <b>*</b> | ✓        | <b>*</b> | ✓        |
| Recording      | <b>*</b> |          |          |          |          |
| demo           |          |          |          |          |          |