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|  | **MINISTRY OF EDUCATION AND TRAINING** |

**FPT UNIVERSITY**

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| Capstone Project Document |
| PET DATING |
| **VERSION 1.0** |
| |  |  | | --- | --- | |  | | | **Supervisor** | **Phan Duy Hùng** | | **Group Members** | **Nguyễn Đức Thịnh – SE06149**  **Nguyễn Đỗ Anh Khương – SE05608**  **Khương Trung Hiếu– SE06020**  **Trịnh Văn Anh – SE05308**  **Nguyễn Hoàng Phong – SE05668** | | **Capstone Project code** | **PD** | |
|  |

Ha Noi, May 31, 2020

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# CHAPTER 1: INTRODUCTION

## Propose

This chapter provides an overview of the capstone project. It includes the project information, the background of the capstone project, the problem and our proposal to solve the problem.

## Project Information

|  |  |
| --- | --- |
| Project Information | |
| Project name | Pet Dating |
| Project code |  |
| Group name |  |
| Product type | Mobile Application |
| Timeline |  |

## The People

Supervisor:

|  |  |  |  |
| --- | --- | --- | --- |
| Full name | Phone | E-Mail | Title |
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|  |  |  |  |  |
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## Background

Trong xã hội hiện đại, con người thường rất bận rộn và ít khi có thời gian chăm chút cho một mối quan hệ thực sự gắn bó với những người xung quanh. Vì thế rất nhiều người lựa chọn tìm đến thú cưng làm người bầu bạn với bản thân. Theo khảo sát của Q&ME, có đến 49.9% số người nuôi chó hoặc mèo với mục đích nêu trên. Thời gian sống cùng những người bạn nhỏ này còn lên đến 4 năm hoặc nhiều hơn nữa. Hiển nhiên, việc nuôi thú cưng trong nhà hiện nay không còn chỉ vì mục đích bảo vệ nhà hay bắt chuột nữa. Mọi người đang dần đối xử và chăm sóc thú cưng như một thành viên trong gia đình.

## The Problem

Hầu hết những người sở hữu thú cưng đều rất chú trọng đến thức ăn, quần áo, tinh thần và bạn tình cho người bạn nhỏ của mình. Tuy nhiên ở Việt Nam, môi trường giúp những chú cún con có thể tìm được một người bạn để thỉnh thoảng đến thăm, hay thậm chí là làm bạn đời, thực sự rất ít. Có rất nhiều nhóm về thú cưng đã được lập ra trên Facebook, một mạng xã hội rất dễ tiếp cận, dễ tham gia. Nhưng Facebook lại thiếu đi sự tập trung hướng trực tiếp đến những người sở hữu thú cưng. Một vài cộng đồng khác thì không thực sự phổ biết hoặc đã dừng hoạt động. Có thể thấy rõ ràng rằng ở Việt Nam không có bất kì một cộng đồng trực tuyến nào sinh ra để thú cưng có thể tìm được một người bạn, một người có thể chơi cùng và làm bạn tình.

## Literature Review

Chúng tôi đã nghiên cứu và tìm hiểu một số các website đang cung cấp dịch vụ tương tự (hẹn hò cho thú cưng). Qua đó chúng tôi đã phân tích và tìm ra các vấn đề về các trang web này để phát triển và chỉnh sửa ứng dụng của mình nhằm cải thiện trải nghiệm đối với người dùng. Từ đó giúp ứng dụng của tôi tăng sức cạnh tranh so với các trang web, ứng dụng khác :



Get bone (app)

Advantages and Disadvantages of Get bone

|  |  |
| --- | --- |
| **Advantages** | **Disadvantages** |
| * Provide news and more information about pets. * Interface is easy to use and be like Tinder * Support finding mates. | * Only news, no communication between users |



Datemypet.com

|  |  |
| --- | --- |
| **Advantages** | **Disadvantages** |
| * Provide news and more information about pets. | * Not support finding mates. * Only news, no communication between users |

## The Proposal

### The idea

We want to build a mobile application where everyone can find the half of their pets, or simply want to know about other pets. Major of application is finding the mates for their pets based on automation mode or manual mode. In the app, people maybe complete the user’s profile; pet’s profile; upload images; match what pets they want. In addition, everyone can connect and chat about pets. It helps making pets dating becomes easy, safe and enhance the community. Our idea has two part: mobile application for user and website for manager.

### The proposal



Figure - Roles in PD system

### System functions

There are three roles and responsibilities of each role on PetDating:

|  |  |
| --- | --- |
| **Role** | **Responsibilities** |
| Admin | People who approve mod’s account to manage system. |
| Mod | Somebody who manage the PD system. But can’t approve or reject other account. |
| Users | People who join and use PD application |

The system has the following roles and main functions:

* Admin:

+ Login and Logout to website.

+ Authorize to moderator.

* Mod:

+ Login and Logout to website.

+ Review reports from user.

+ Ban and Unban user.

* Users

+ Login and Logout to mobile application.

+ View user profile and modify your profile.

+ Create, modify your pet profile and view the pet profile. The pet profile defines the name, sex, age, … of pets.

+ Upload images and set privacy such as private or public.

+ Users can use dating function to find mates for pets. There are two types of finding mates:

* + Find mates by automation: Application suggests pets base on your nearly location and all of pets in your profile.
  + Find mates by manual: Application suggests pets base on your choosing.

+ Users can use chatting system to connect to other users.

+ Feedback about system.

+ Report other account.

### Business flow

* **Authorization process**

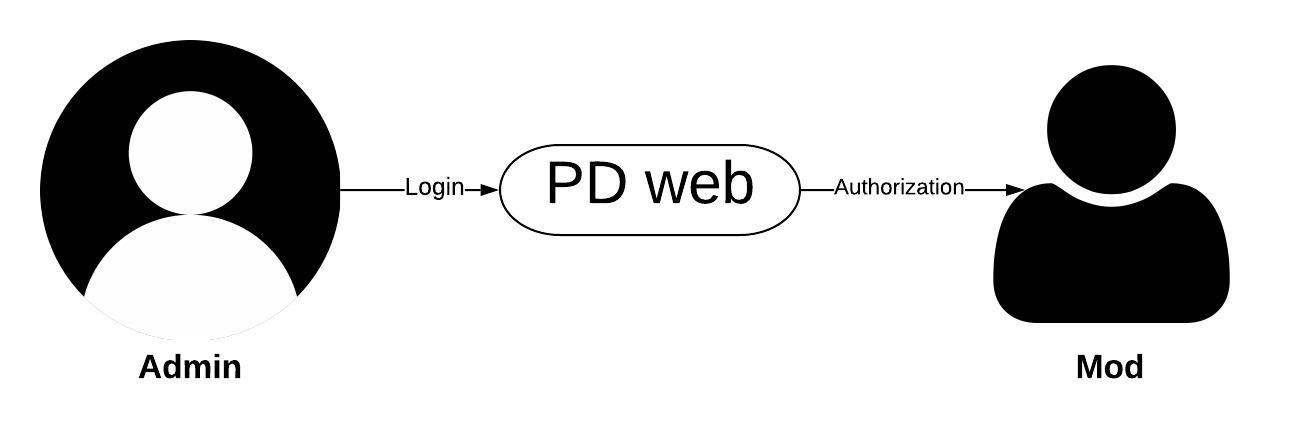


Figure - Process of authorization on PD

* **Review report process**

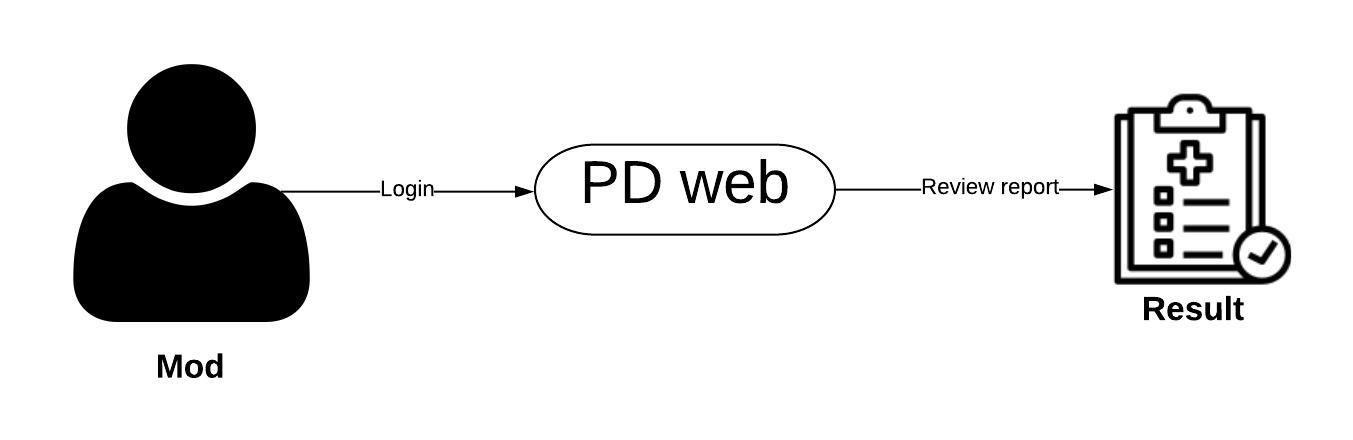


Figure 5 - Process of review report on PD

* **Ban and unban user**

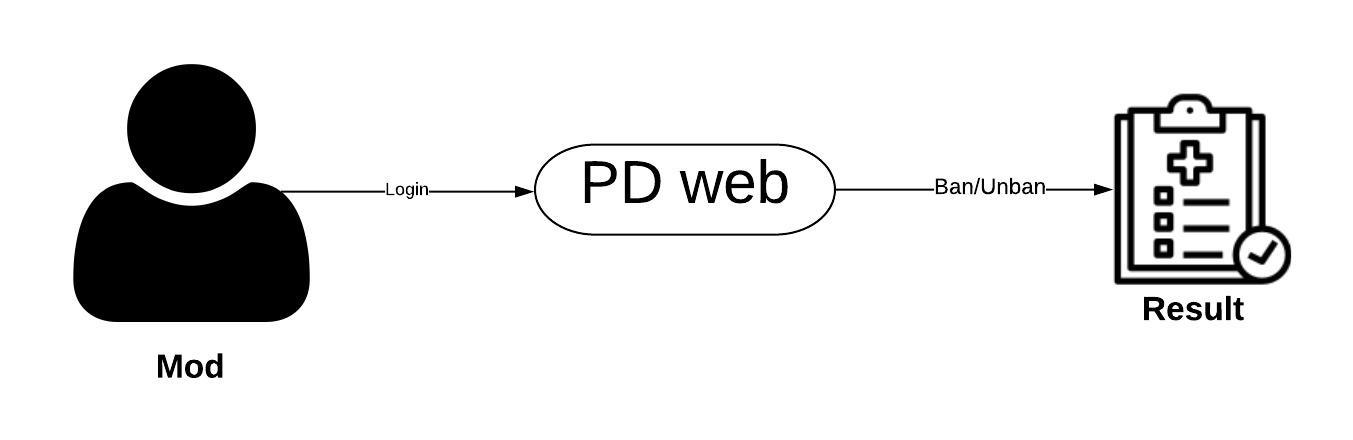


Figure 6 - Process of ban/unban on PD

* **Dating process**
* **User management process**

**CHAPTER 3: SOFTWARE REQUIREMENT SPECIFICATION**

* 1. Purpose

This chapter outlines functional and non-functional requirements of our system. It also provides some format constraints in common requirements and project success criteria. The content of this chapter is used as the basis for the work in the subsequent chapters.

* 1. Functional Requirement

3. 2. 1. Use case diagram

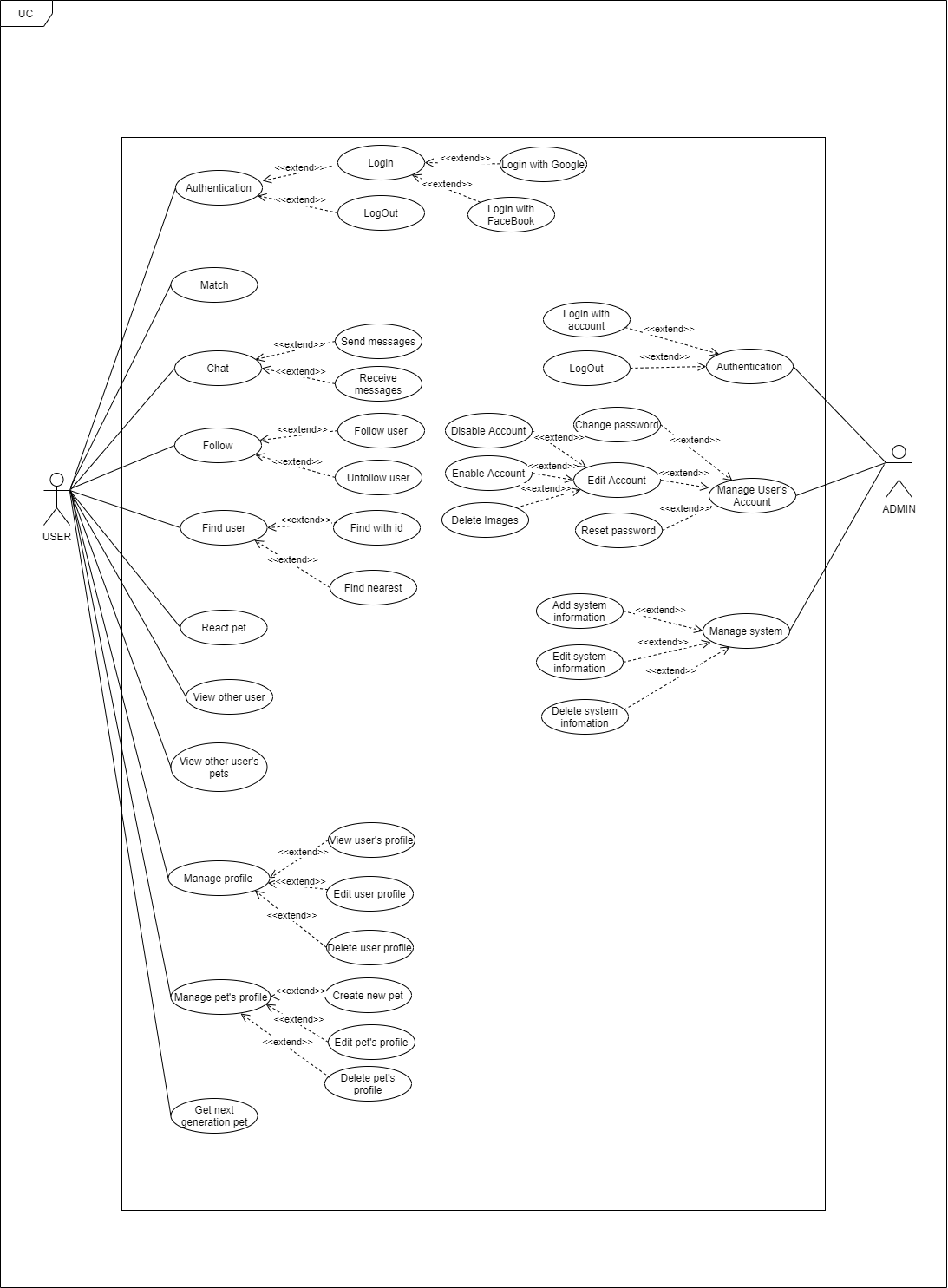


Figure - Use case diagram

* + 1. Business rules

|  |  |
| --- | --- |
| **ID** | **Description** |
| 1 | Google+ account or Facebook account must be valided. |
| 2 | Admin’s password must not be stored as plain text. Instead it must be hashed using a secure hash algorithm. |
| 3 | The field must be filled by characters consist of alphabet and numbers. |
| 4 | The field must be filled by characters consist of alphabet. |
| 5 | The field must be not empty. |
| 6 | The characters of field is greater than 10. |
| 7 | The characters of field is greater than 3. |
| 8 | The characters of field is greater than 5. |
| 9 | The maximum characters of field is 30. |
| 10 | The maximum characters of field is 20. |
| 11 | Image file type must be image type. |

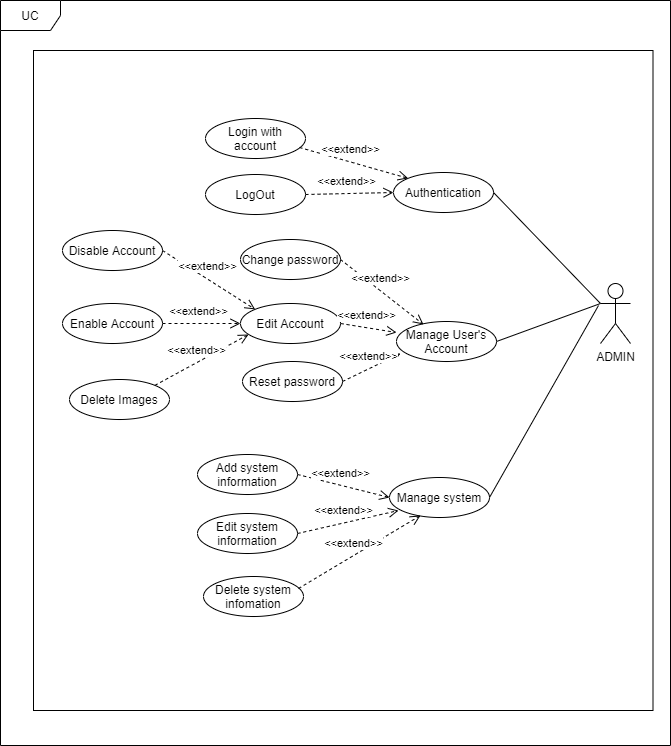
Table - Business rules

* + 1. Use case list

|  |  |
| --- | --- |
| **Actors** | **Description** |
| User | Everyone who has an account on the PetDating system and used it. |
| Admin | People who has responsibilities about system |

|  |  |  |
| --- | --- | --- |
| **ID** | **Actor** | **Name** |
| AD-UC-1.0 | Admin | Login with account |
| AD-UC-2.0 | Logout |
| AD-UC-3.0 | Change password |
| AD-UC-4.0 | Edit Account |
| AD-UC-5.0 | Manage User’s Account |
| AD-UC-6.0 | Reset password |
| AD-UC-7.0 | Manage system |
| AD-UC-8.0 | Add system information |
| AD-UC-9.0 | Edit system information |
| AD-UC-10.0 | Delete system information |
| US-UC-1.0 | User | Login with Goole/Facebook/(Phone number) |
| US-UC-2.0 | Logout |
| US-UC-3.0 | Match |
| US-UC-4.0 | Send messages |
| US-UC-5.0 | Receive message |
| US-UC-6.0 | Follow |
| US-UC-7.0 | Find user with ID |
| US-UC-8.0 | React pet |
| US-UC-9.0 | View other user |
| US-UC-10.0 | View other user’s pets |
| US-UC-11.0 | Modify user’s profile |
| US-UC-12.0 | View user’s profile |
| US-UC-13.0 | Create new pet |
| US-UC-14.0 | Edit pet’s profile |
| US-UC-15.0 | Delete pet’s profile |
| US-UC-16.0 | View pet’s profile |
| US-UC-17.0 | Find nearest |
| US-UC-18.0 |  | Get next generation pet |

* + 1. Use case specification
       1. Admin



* + - * 1. Authentication

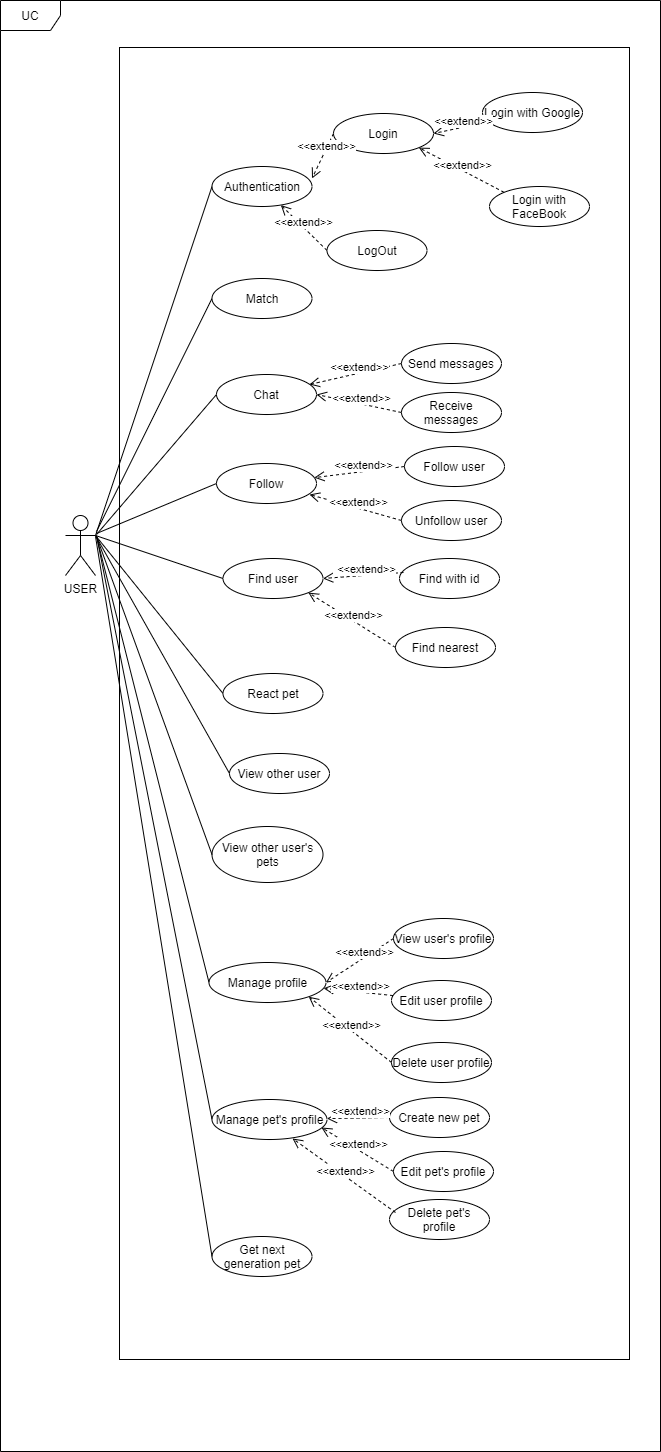
\* **Login with account**

|  |  |  |  |
| --- | --- | --- | --- |
| **USECASE AD-UC-1.0** **SPECIFICATION** | | | |
| **Use case ID** | AD-UC-1.0 | **Use case version** | V1.0 |
| **Use case name** | Login with account | | |
| **Author** | Nguyen Do Anh Khuong | | |
| **Date** | 11/07/2020 | **Priority** | High |
| **Primary actor** | Admin | **Secondary actor** | N/A |
| **Description** | Allows admin login to PD system in website. | | |
| **Pre-condition** | Admin has an account and the account is still working. | | |
| **Post-condition** | When the normal flow completes successfully, the login status is set to true, and the access token is saved on the website. | | |
| **Trigger** |  | | |
| **Main flow:**   |  |  |  | | --- | --- | --- | | **No.** | **Actor events** | **System respond** | | **1.** | Admin goes to login page |  | | **2.** |  | Website displays the details, which includes the following:  Title: Đăng nhập vào hệ thống PD  TextInput: Tài khoản  TextInput: Mật khẩu  Button: Đăng nhập | | **3.** | Admin fills account and password then clicks “Đăng nhập” button. |  | | **4.** |  | System generates cookies and save them. | | **5.** |  | Website navigates to homepage. |   **Alternative Flows: Admin logged and not yet log out.**   |  |  |  | | --- | --- | --- | | **No.** | **Actor events** | **System respond** | | **1.** | Admin goes to homepage |  | | **2.** |  | Website checks cookies then navigates to login page if not exist cookies. |   **Extension Flows: N/A**  **Exception:**  **AD1.0-E1 – Cannot connect with Account API**  System displays error message.  **AD1.0-E2 – Wrong account or password**  System displays error message and requests login again.    **Business Rules: B3, B4** | | | |
|  | | | |

\***Logout**

|  |  |  |  |
| --- | --- | --- | --- |
| **USECASE AD-UC-2.0** **SPECIFICATION** | | | |
| **Use case ID** | AD-UC-2.0 | **Use case version** | V1.0 |
| **Use case name** | LogOut | | |
| **Author** | Nguyen Do Anh Khuong | | |
| **Date** | 11/07/2020 | **Priority** | High |
| **Primary actor** | Admin | **Secondary actor** | N/A |
| **Description** | Log out the PD System. | | |
| **Pre-condition** | Has logged into PD system. | | |
| **Post-condition** | When the normal flow completes successfully, the login status is set to false, and the access token is cleared. | | |
| **Trigger** |  | | |
| **Main flow:**   |  |  |  | | --- | --- | --- | | **No.** | **Actor events** | **System respond** | | **1.** | Clicks icon “Account” on top right of website. |  | | **2.** |  | Website displays “Account Management” pop-up | | **3.** | Admin/Mod clicks “Đăng xuất” on top right of website. |  | | **4.** |  | Website navigates to Login page. |   **Alternative Flows: N/A**  **Extension Flows:**  **Exception: N/A**  **Business Rules: N/A** | | | |
|  | | | |

* + - 1. User



* + - * 1. Authentication

**\*Login with Google or Facebook**

|  |  |  |  |
| --- | --- | --- | --- |
| **USECASE US-UC-1.0** **SPECIFICATION** | | | |
| **Use case ID** | US-UC-1.0 | **Use case version** | V1.0 |
| **Use case name** | Login with Google+ or Facebook | | |
| **Author** | Nguyen Đỗ Anh Khuong | | |
| **Date** | 11/07/2020 | **Priority** | High |
| **Primary actor** | User | **Secondary actor** | N/A |
| **Description** | Allows User login to PD system in mobile application. | | |
| **Pre-condition** | People has a Google/Facebook account and the account is still working. | | |
| **Post-condition** | When the normal flow completes successfully, the login status is set to true, and the access token is saved on the application. | | |
| **Trigger** |  | | |
| **Main flow:**   |  |  |  | | --- | --- | --- | | **No.** | **Actor events** | **System respond** | | **1.** | User opens PD application |  | | **2.** |  | App displays title “Đăng nhập vào PET-DATING”, “Đăng nhập với Google+” button and “Đăng nhập với Facebook” button. | | **3.** | User clicks “Đăng nhập với Google+” or “Đăng nhập với Facebook”. |  | | **4.** |  | App shows a pop-up login. | | **5.** | User fills email and password or choose account (if signed in before) |  | | **6.** |  | System generates access token, user profile and save it on application. | | **7.** |  | App navigates to inside app. |   **Alternative Flows: User logged and not yet log out.**   |  |  |  | | --- | --- | --- | | **No.** | **Actor events** | **System respond** | | **1.** | User opens PD application |  | | **2.** |  | Application checks data then navigates to inside app. |   **Extension Flows: N/A**  **Exception:**  **US1.0-E1 – Cannot connect with Google API**  System displays error message.  **US1.0-E2 – Cannot connect with Facebook API**  System displays error message.    **Business Rules: B1** | | | |
|  | | | |