# Animal Rescue and Pet Adoption Platform

# Artefact Design and Test Plan

| Academic Year | Module | Assessment | Assessment Type |
|---|---|---|---|
| 2025 | Project and Professionalism (6CS007) | Artefact Design SRS and Test Plan | Individual |

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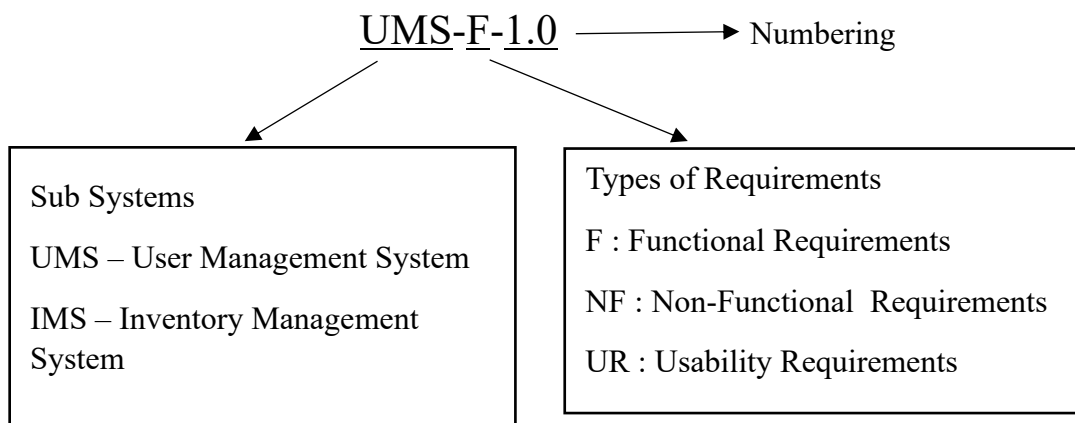
Cohort: 9

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# 1. Introduction

Artifact design is basically documentation that is used during the development of projects. Artifact design provides clear and complete documentation of the system's specifications as well as execution details. It also enhances effectiveness and assists the user in developing clarity and consistency inside the system.

# 2. User Management System (UMS)

The User Management System (UMS) for the Animal Rescue and Pet Adoption Platform efficiently handles two key actors: admins and users. Admins can create, modify, and delete user accounts, assign roles, and monitor activities for security. Users can register, log in, and manage their profiles to adopt pets, request rescues, and make donations. The UMS ensures secure access, streamlined account management, and a seamless experience for both admins and users.

**Legend**

$$\underline{UMS}\text{-}\underline{F}\text{-}\underline{1.0} \longrightarrow \text{Numbering}$$

| Sub Systems | Types of Requirements |
|---|---|
| UMS – User Management System | F : Functional Requirements |
| IMS – Inventory Management System | NF : Non-Functional Requirements |
| | UR : Usability Requirements |

## 2.1. SRS Document

| Requirement | Description | MOSCOW (Priority) |
|---|---|---|
| UMS-F-1.0. | Users should be able to register for an account so that he/she can login in the system. | Must Have |
| UMS-F-1.1. | Users should be able to comply with password policies so that they can securely access their accounts. | Must Have |
| UMS-F-1.2. | Every user should be able to view and edit their profile information so that he/she can update their information. | Must Have |
| UMS-F-1.3 | Every user must provide a validated email address so that they can ensure accurate account creation. | Must Have |
| UMS-F-1.4. | Users should be able to view appropriate error messages for user management issues so that they can understand and address any encountered problems effectively. | Should Have |
| UMS-F-1.5. | Users should be able to login via email and password so that they can access their accounts securely. | Must Have |

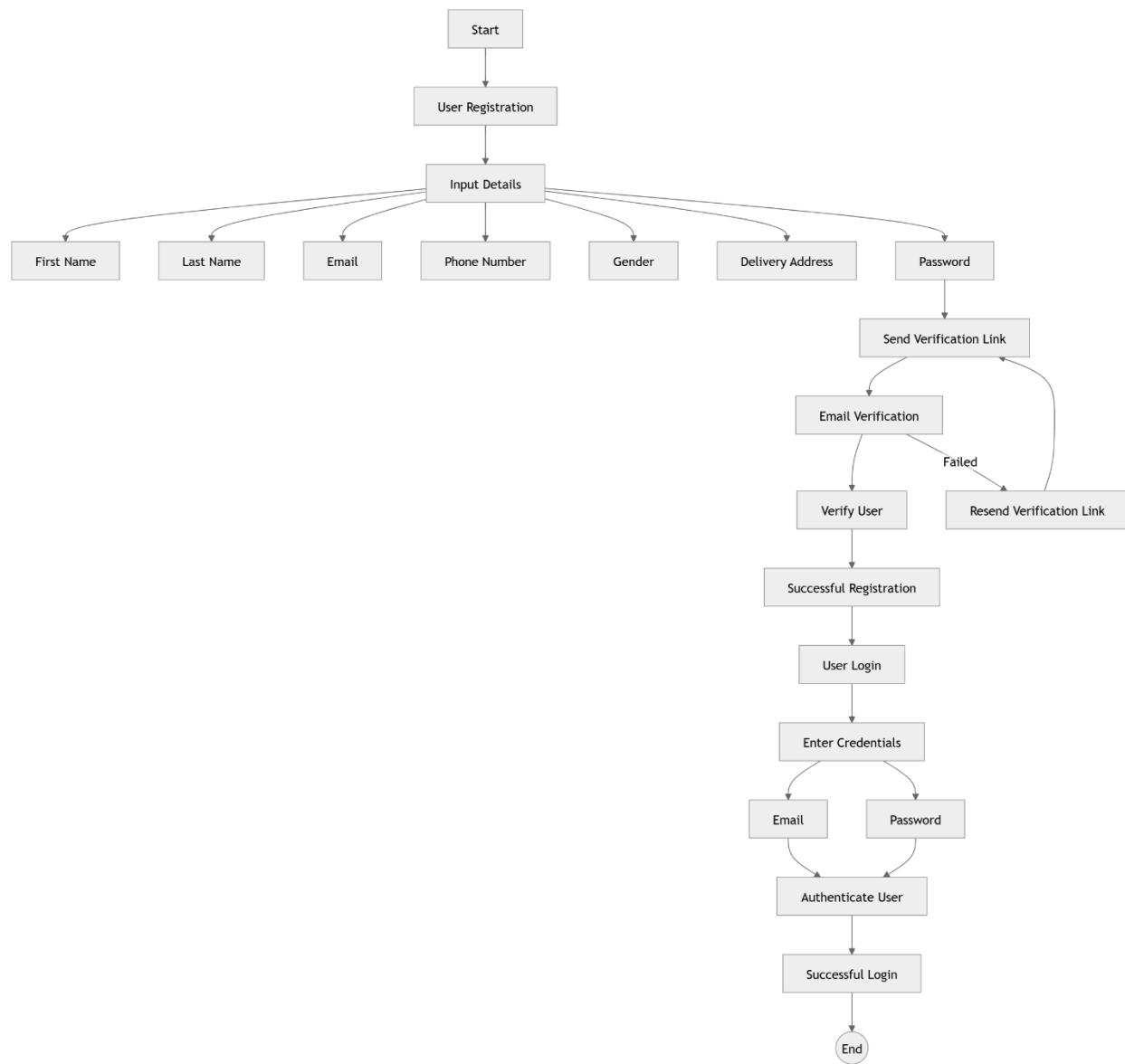| UMS-F-1.6. | Users should be able to change their password so that they can enhance account. | Must Have |
|---|---|---|
| UMS-F-1.7. | Users should be able to change their profile picture so that they can personalize their account. | Must Have |
| UMS-F-1.8. | Users should be able to see their password so that users can verify conveniently . | Should Have |
| UMS-F-1.9. | The 'Forget Password' option should be available so that users can facilitate password recovery. | Must Have |
| UMS-F-2.0. | Users should be able to login via social media or two-factor authentication so that they can connect their social medias in the system. | Could Have |

## 2.2. Activity Diagram



*Figure 1 Activity Diagram of UMS*

## 2.3. ERD Diagram

**ADMIN**

| | | |
|---|---|---|
| string | adminId | PK |
| string | adminName | |
| string | email | |
| string | phoneNumber | |

manages

**USER**

| | | |
|---|---|---|
| string | firstName | |
| string | lastName | |
| string | email | PK |
| string | phoneNumber | |
| string | gender | |
| string | deliveryAddress | |
| string | password | |

adopts

requests

has

**PET**

| | | |
|---|---|---|
| string | petId | PK |
| string | name | |
| string | species | |
| string | breed | |
| string | age | |

**LIVE_RESCUE**

| | | |
|---|---|---|
| string | rescueId | PK |
| string | location | |
| string | description | |
| date | rescueDate | |

**AUTHENTICATION**

| | | |
|---|---|---|
| string | authId | PK |
| string | email | FK |
| string | password | |
| boolean | isVerified | |

requires

**VETERINARY_APPOINTMENT**

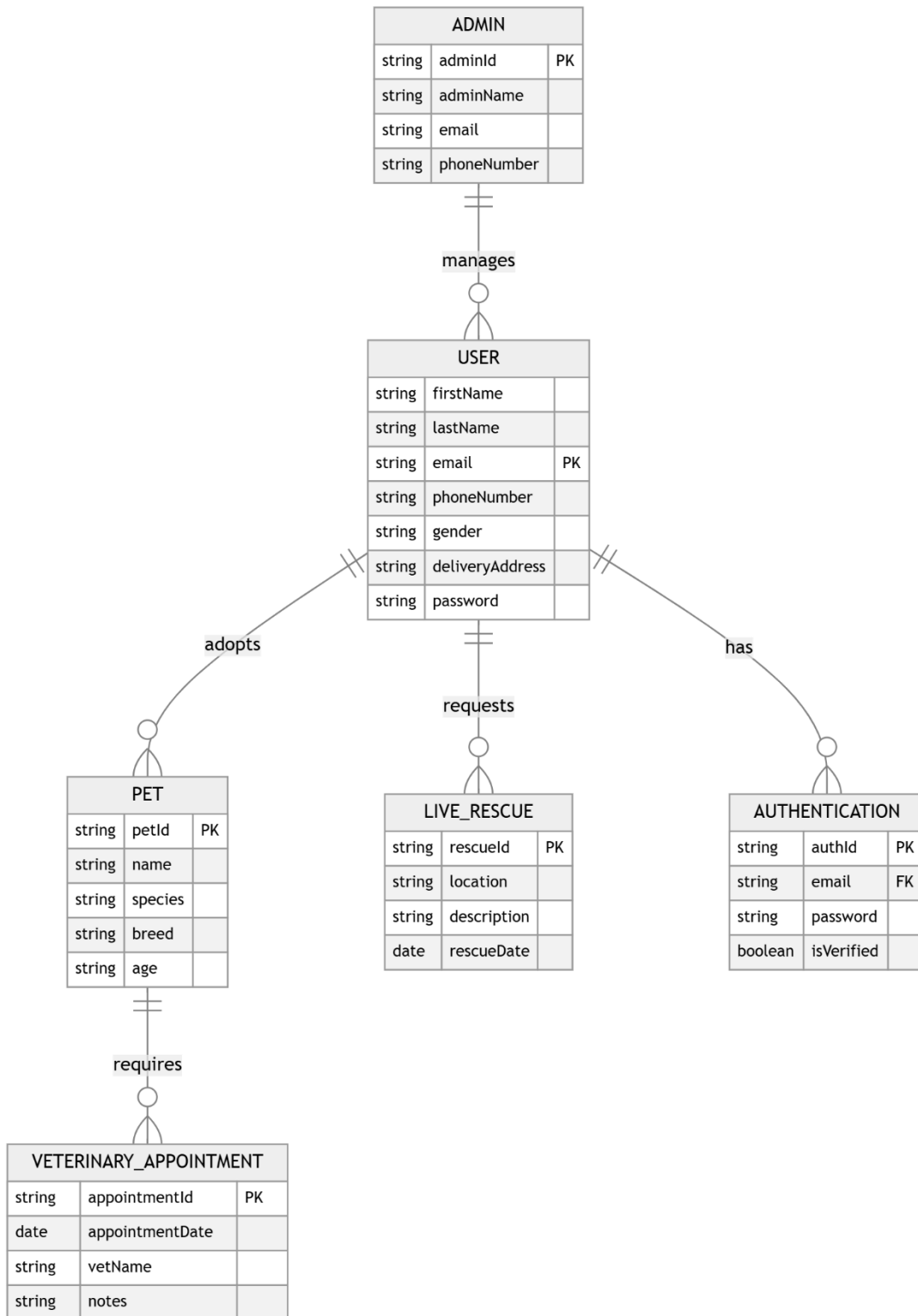| | | |
|---|---|---|
| string | appointmentId | PK |
| date | appointmentDate | |
| string | vetName | |
| string | notes | |

*Figure 2 ERD of UMS*

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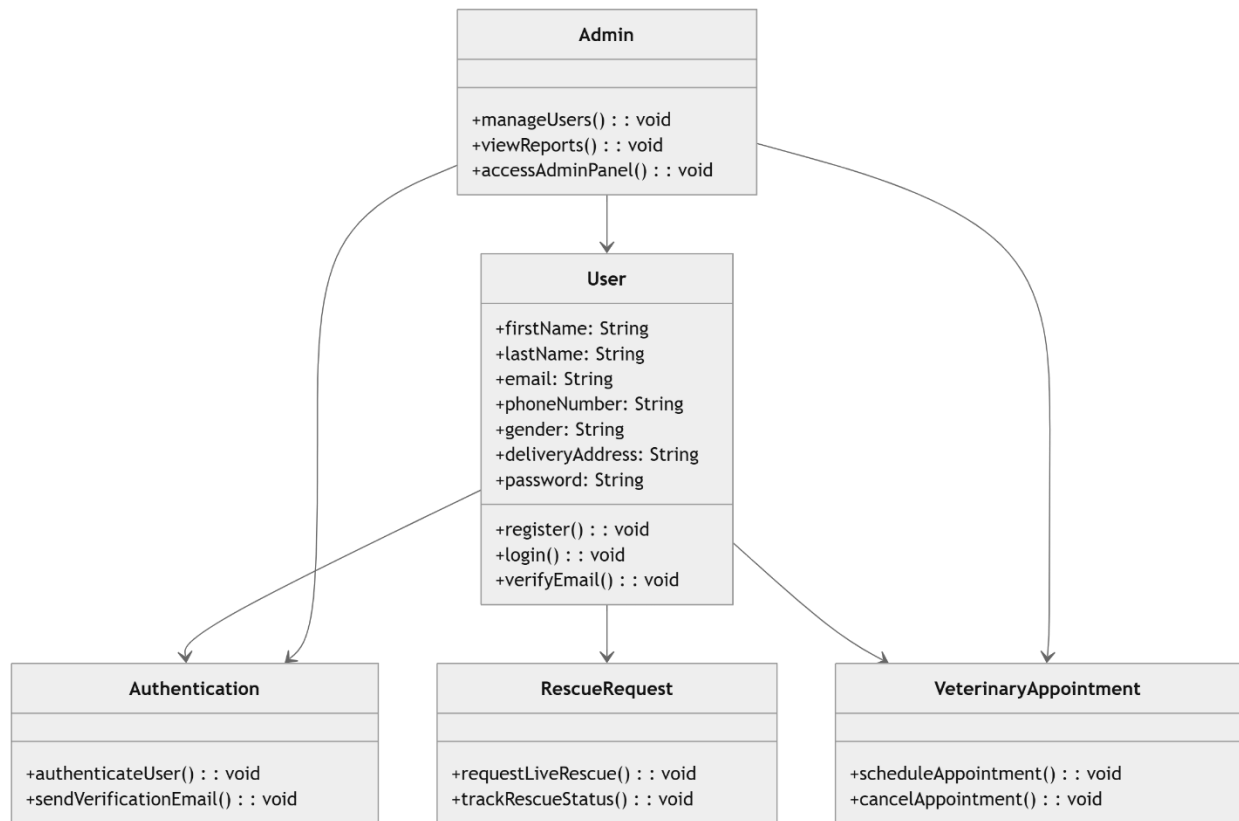
## 2.4. Class Diagram of UMS



*Figure 3 Class Diagram of UMS*

# 3. Inventory Management System (IMS)

The IMS is an essential tool for efficiently tracking and managing pet products, food, accessories, and other items sold in the store. It allows store owners and staff to easily monitor stock levels, manage product orders, and update the inventory in real-time. The system helps streamline the process of tracking sales, reordering products, and ensuring that popular items are always in stock. By automating inventory management, the IMS enhances the efficiency of the store, reduces the risk of overstocking or stockouts, and improves the overall customer experience by ensuring that products are readily available when needed.
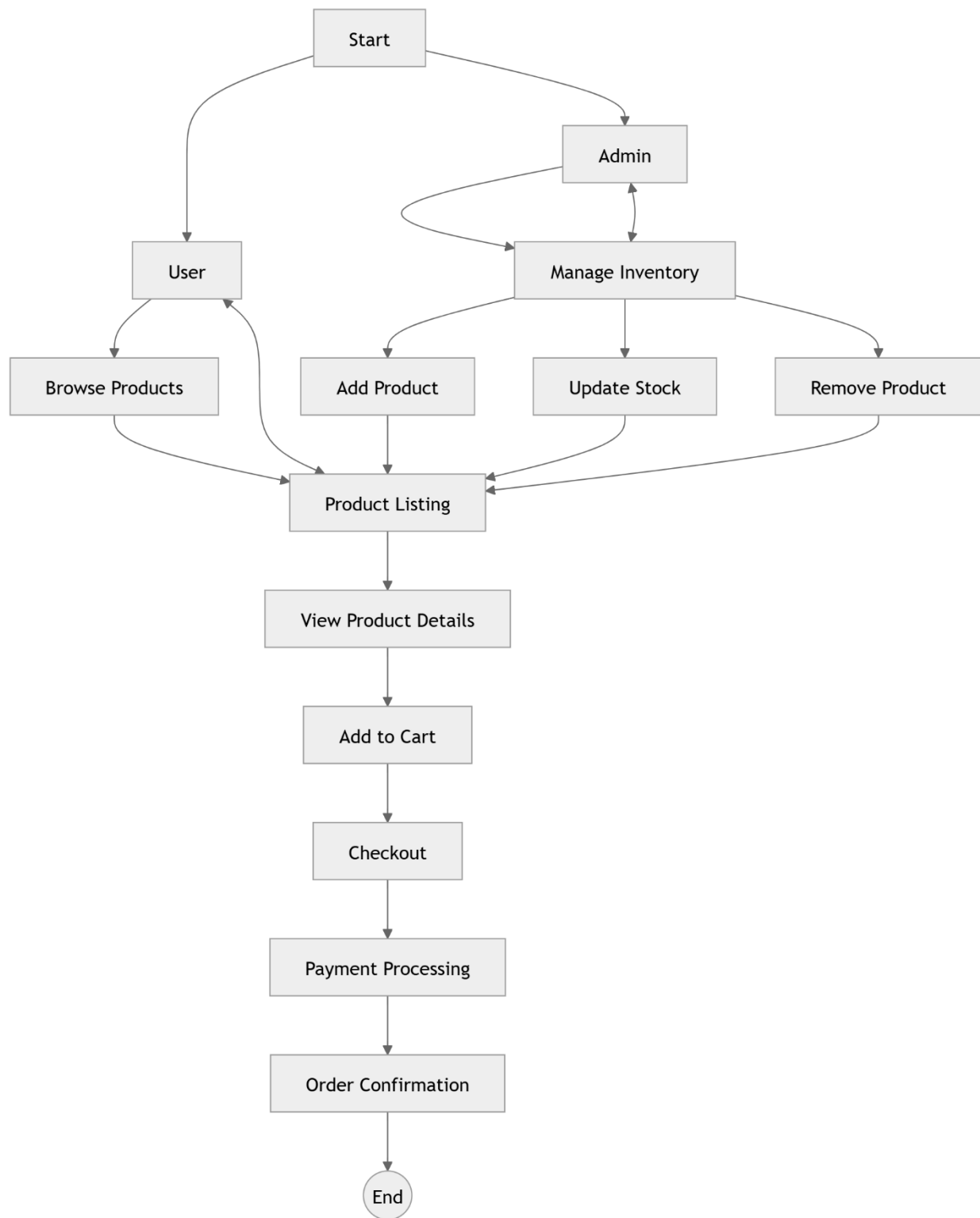
## 3.1. Activity Diagram



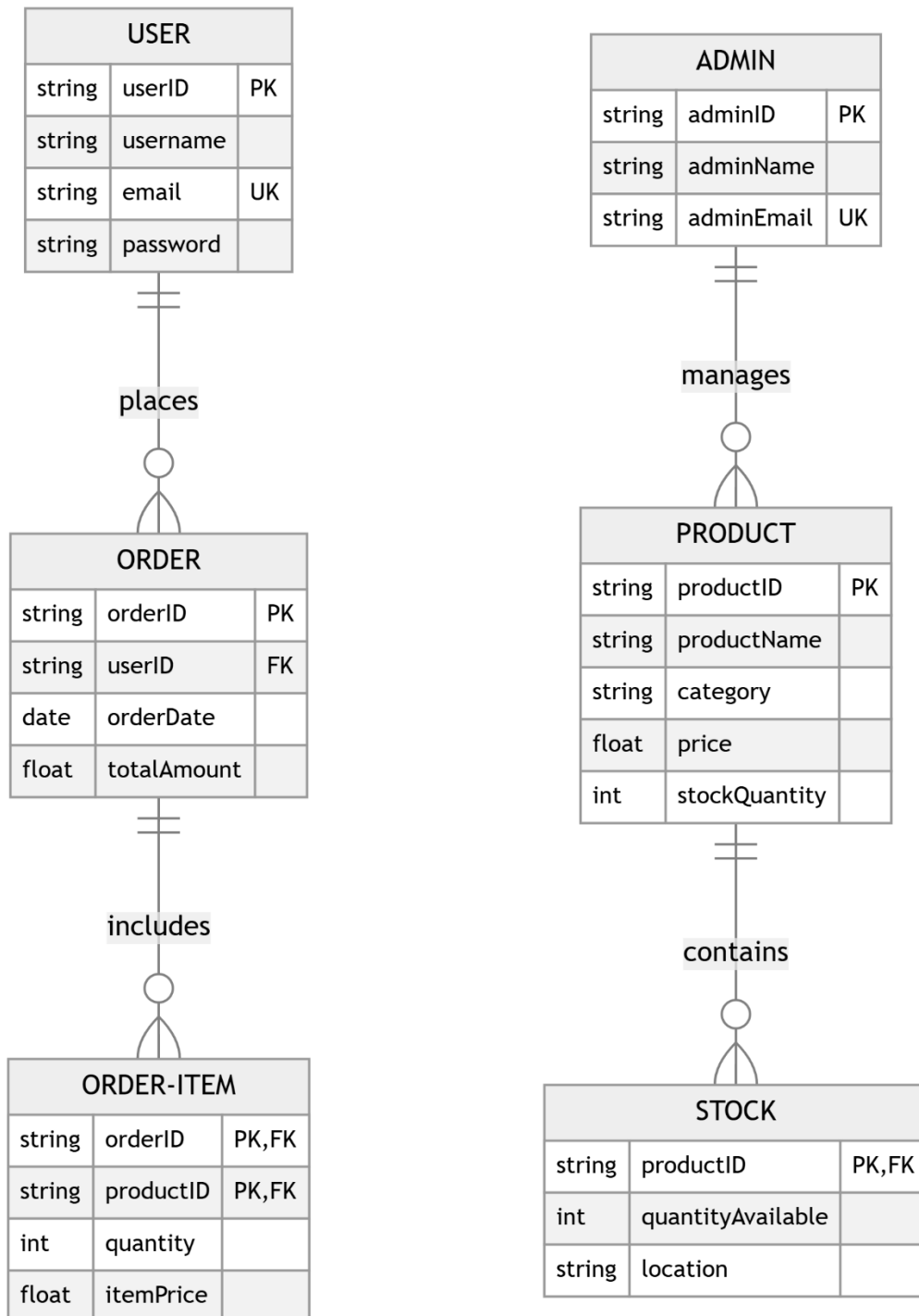*Figure 4  Activity Diagram of IMS*

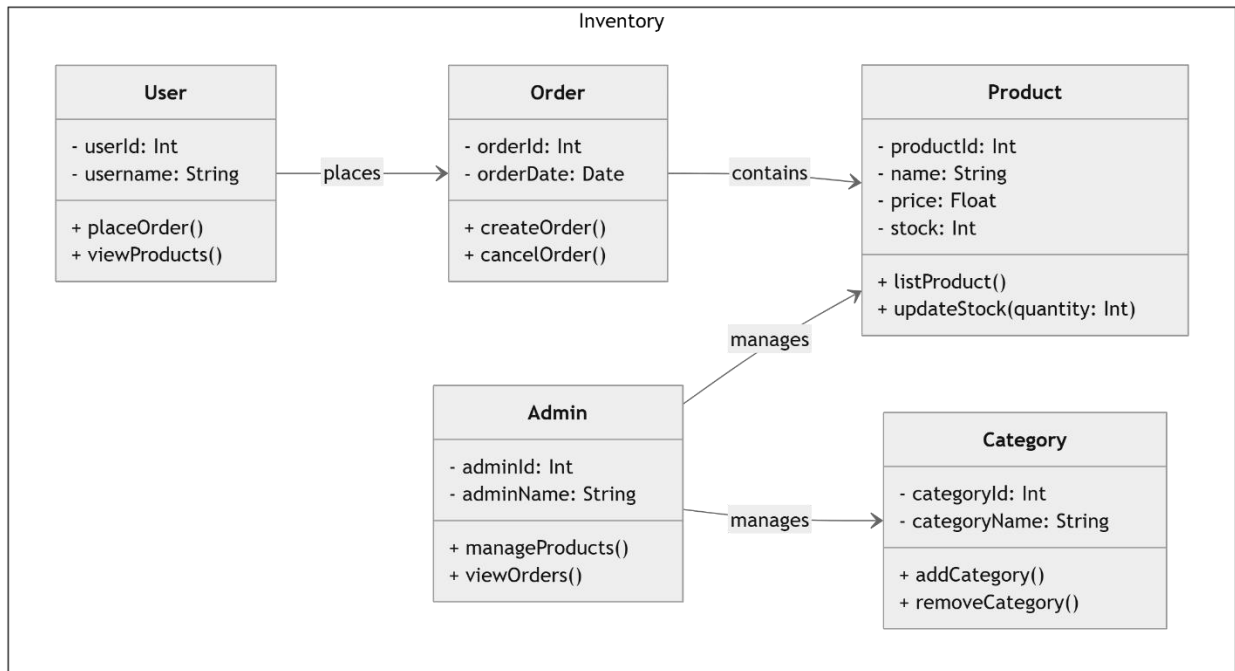## 3.2. ERD Diagram



*Figure 5 ERD of IMS*

## 3.3. Class Diagram



*Figure 6 Class Diagram of IMS*

## 4. Testing Plan

| TC-ID | Testing Name | SRS_ID | Expected | Actual | Result |
|-------|--------------|--------|----------|--------|--------|
| TC-01 | Register | UMS-F-1.0 | Users can register their account via by adding their full name, email, password, age, phone number. | User successfully registered. | Pass |

| TC-02 | Password policies | UMS-F-1.1 | User should be able to comply with password policies. | With fulfilling the policies, user can login. | Pass |
|---|---|---|---|---|---|
| TC-03 | View and edit profile informatio n | UMS-F-1.2 | User must be able to view and edit profile information. | User can edit and view profile. | Pass |
| TC-04 | Validate email | UMS-F-1.3 | User must be able to validate email address. | User can login with valid email address. | Pass |
| TC-05 | Change Password | UMS-F-1.6 | User should be able to change password. | User can change their password after logging in. | Pass |
| TC-07 | View password after entry | UMS-F-1.8 | User must be able to view password after inputting. | User can view password. | Pass |