EMPETZ

Submitted by :
Fathima Riyana N.R

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1 . INTRODUCTION

Empetz is a mobile app that allows people to buy and sell pets . Sellers can add pets with details and photos, and buyers can browse and chat with sellers. The app also includes a chatbot to help users and a pet medical tracker to keep track of pet health. It is built with Flutter for Android and iOS and uses ASP.NET for the back end to keep everything secure and reliable.

Clearly defining the system requirements is very important for making sure the app works well and meets users' needs. This document explains what the app must do and how it should perform. Having clear requirements helps developers, testers, and everyone involved stay on the same page, reduce errors, and deliver a reliable app that fulfills its goals.

1.1 Purpose

The purpose of this Software Requirements Specification (SRS) document is to define the complete set of requirements for the Empetz system — a mobile application designed for buying and selling pets. Developed with Flutter for the front end and ASP.NET for the back end, this application provides a platform where users can interact seamlessly to conduct pet-related transactions.

This document aims to capture and document both the functional and non-functional requirements of the system. It ensures a clear and common understanding among developers, testers, and stakeholders regarding the system's objectives, features, and constraints. Key features of Empetz include seller item listing, buyer-seller chat functionality, a built-in chatbot for user support, and a pet medical tracker to manage pets' health information

1.2 Scope

The Empetz system is a mobile application that facilitates the buying and selling of pets through a user-friendly and secure platform. The application is designed to connect pet sellers with potential buyers and streamline the process of pet transactions.

The core functionalities of the system include:

- Allowing sellers to register, log in, and post listings of pets available for sale.
- Allowing buyers to browse available pets, view details, and chat with sellers within the app.
- A chatbot that assists users by answering common queries.
- A pet medical tracker feature that helps users maintain and monitor health records of their pets.
- Basic user account management, including profile editing and password resetting.

However, the system does not include features like online payment integration, delivery or transport logistics, advanced pet breed recommendation systems, or veterinary appointment booking. These are outside the scope of the current version.

There are two main user roles in the Empetz system:

Buyer: Can browse pet listings, chat with sellers, and use the chatbot and medical tracker.

Seller: Can add pet listings, manage posted items, and communicate with buyers via chat.

1.3 Objectives

The primary objective of the Empetz system is to provide a seamless and reliable platform for buying and selling pets. It aims to simplify the process of pet transactions by connecting sellers and buyers in an easy-to-use mobile application.

Empetz addresses common problems such as difficulty in finding trustworthy sellers or buyers, lack of direct communication, and managing pet health information. The system's goals include enabling efficient pet listing and browsing, facilitating real-time chat between buyers and sellers, providing user support through a chatbot, and helping users track their pets' medical records for better pet care.

2.FUNCTIONAL REQUIREMENTS

2.1 Primary actors of the system

The Empetz system involves several primary actors, each with distinct roles and responsibilities. The Seller is the user who lists pets or items for sale, manages their pet listings, and interacts with interested buyers through the in-app chat feature.

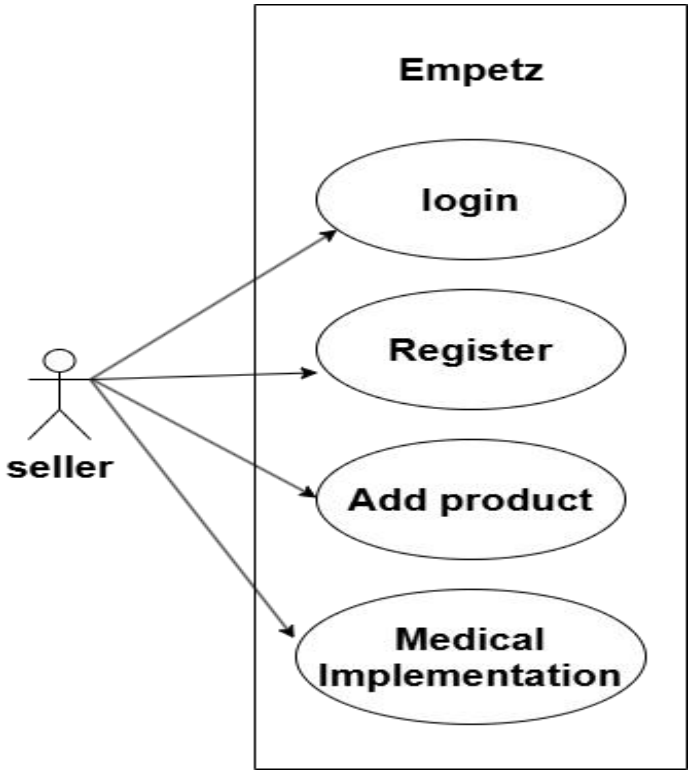
The Buyer browses through the available pets, communicates with sellers to inquire about pets or negotiate terms, and completes purchases within the app.

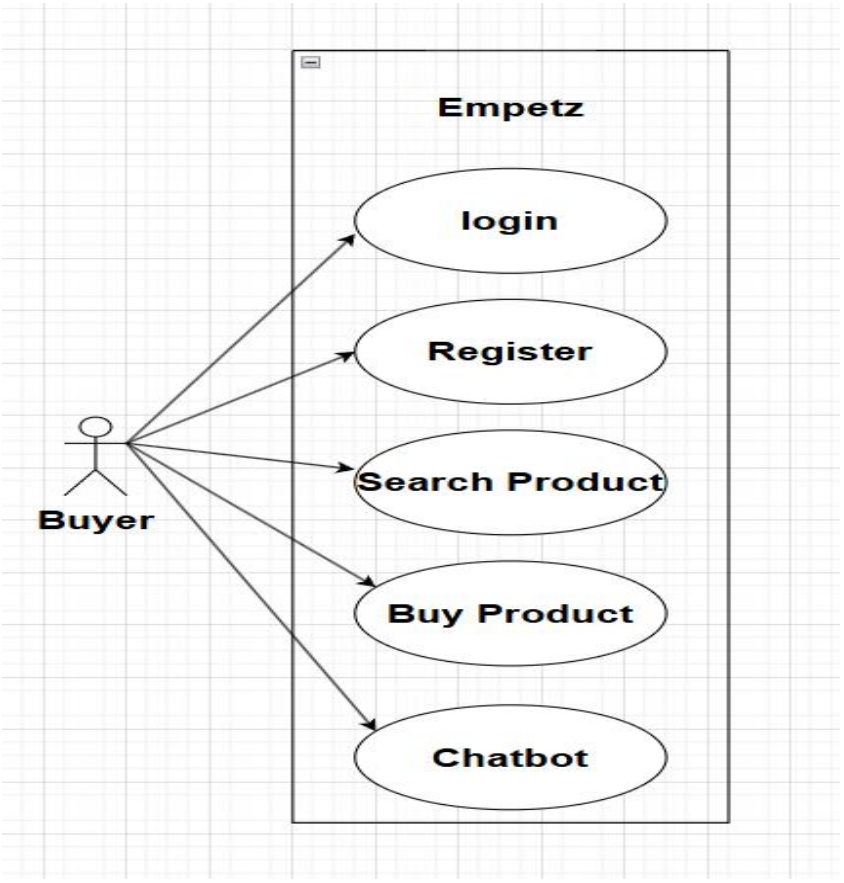
The Chatbot serves as an automated virtual assistant, providing users with quick responses to frequently asked questions and helping them navigate the application efficiently

Lastly, the Pet Owner uses the pet medical tracker to keep health records updated, track medical history.

2.2 Use Case Diagram

A use case diagram is a visual representation in the Unified Modeling Language (UML) that shows the interactions between actors (users or external systems) and a system to achieve specific goals.


Empetz
login
Register
Add product
Medical Implementation
seller


Empetz
login
Register
Search Product
Buy Product
Chatbot
Buyer

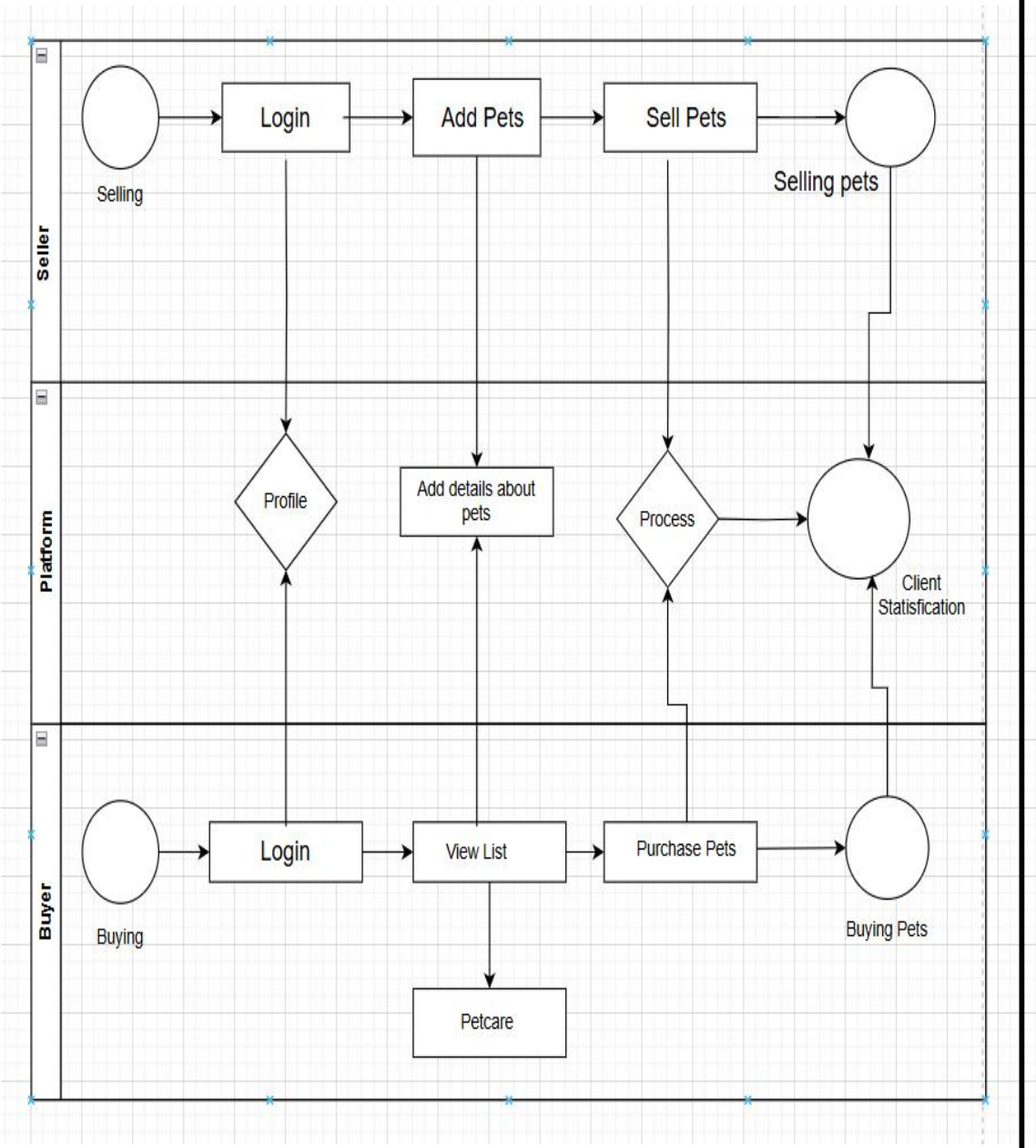
2.3 User Stories

user stories are concise, informal descriptions of features, written from the user's perspective, that help teams understand requirements and prioritize work

As a	I NEED TO	SO THAT I CAN
Buyer	Login with email and password or mobile number	Enter to the application
Buyer	Register with their details	Know the details about the buyer
Buyer	Search pets	Search pets through this application
Buyer	Buy pets	Buy pets through application
Seller	Login with phone	Enter the application and manage my products
Seller	Register the application	I can access the features and services of that application
Seller	Add pets	List them for sale on the platform

2.4 Business Process Diagram

Business process diagram, often represented using BPMN (Business Process Model and Notation), visualizes the flow of activities within a business process. It helps understand how work progresses through an organization, from start to finish, including tasks, decision points, and the roles involved.



3 NON - FUNCTIONAL REQUIREMENTS

1. Performance:

The system should handle multiple users simultaneously without noticeable delays, ensuring smooth browsing, listing, and chat interactions.

2. Usability:

The application must have an intuitive and user-friendly interface to make it easy for buyers and sellers of all technical levels to use.

3. Reliability:

Empetz should provide consistent and reliable service, minimizing downtime and ensuring that user data, including pet medical records, is securely saved and retrievable.

4. Security:

The system must protect user data through secure authentication, encrypted communication, and safeguard sensitive information such as personal details and chat messages.

5. Scalability:

The application should be designed to accommodate growing numbers of users and pet listings without degradation of performance.

6. Maintainability:

The system's architecture should allow easy updates, bug fixes, and addition of new features in future releases.

7. Compatibility:

Empetz should support multiple mobile platforms (iOS and Android) to reach a wide range of users

4 TECHNICAL REQUIREMENTS

Software Requirements

- Operating System: Windows 11 Home Single Language (Version 24H2, Build 26100.3476)
- Development Tools:
  - Flutter SDK (for mobile application development)for front end
  - Visual Studio with ASP.NET support (for back end development)
  - Android Studio (for emulator and testing)
  - Database: Microsoft SQL Server (or compatible relational database)

Hardware Requirements (Development Environment)

- Device Model: HP Pavilion Gaming Laptop 15-ce2xxx
- Processor: AMD Ryzen 5 5600H with Radeon Graphics, 3.30 GHz
- Installed RAM: 8 GB (7.34 GB usable)
- System Type: 64-bit operating system, x64-based processor
- Storage: Sufficient internal storage to support development tools, databases, and app builds

5. CONCLUSION

The Empetz system is designed as a mobile application to facilitate the buying and selling of pets. This Software Requirements Specification (SRS) has outlined the system's purpose, scope, objectives, functional and non-functional requirements, technical specifications, and user roles.

By integrating core features such as listings, real-time chat, a chatbot assistant, and a pet medical tracker, Empetz aims to enhance the pet commerce experience and promote responsible pet care. With the use of modern technologies such as Flutter for the frontend and ASP.NET for the backend, along with secure, scalable architecture, this application is positioned to serve a wide range of users efficiently and reliably.

This document serves as a foundation for the development team, stakeholders, and testers to ensure a shared understanding of system expectations and to guide the project from development through to deployment and maintenance.