SC3040 Advanced Software Engineering
AY24/25

Petpal
Release Plan

Version: 1.0

Last modified: 21st October 2024

PetPal Team – TEL1

APPROVALS

Petpals' Approving Authority: Mishra Apurva

Signature Apurva

Printed Name Mishra Apurva

Date 23/10/24

REVISION HISTORY

Version	Date	Organization/Point of Contact	Description of Changes
1.0	10/21/24	Najah Ismail	Baseline Version

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1. INTRODUCTION

This document is intended to document the incremental releases of our web-based application Petpal. Petpal aims to deliver a one-stop solution for agencies, pet-owners and pet-lovers. The intended audience of the document is primarily the Release Manager and Project Manager who is responsible for maintaining smooth development, deployment and production of the application. The document is also relevant to the team members in development and testing to keep up to date about the newest application version. The document must be kept confidential and must not be circulated to persons outside the development and management team.

The document will be updated in case of any upcoming releases due to new feature introduction, feature update, system specification change or any other disruption that may warrant a change in the application.

2. REFERENCED DOCUMENTS

Table 1: Referenced Documents

Document Name	Issuance Date
Project Proposal	27th August 2024
System Requirement Specification	27th August 2024
Risk Management Log	10th September 2024

3. OVERVIEW

3.1 Context

The current pet adoption process in Singapore is highly fragmented, requiring potential adopters to navigate multiple websites and platforms to find a suitable pet. This lack of centralization results in inefficiencies and delays, making it difficult for users to make informed decisions. A study conducted by the Petco Foundation found that 28% of potential adopters found the pet adoption process difficult due to the fragmented nature of information and the time-consuming process of searching through various platforms, underscoring a clear need for a more streamlined and user-friendly solution.

As pet ownership increases in Singapore as reported by CNA, the demand for reliable pet care services, such as pet sitting, has grown significantly. According to a survey done by Rover, 55% of pet owners say that finding a great dog sitter is more difficult than finding a great babysitter, and 39% of pet owners admit to missing a trip because they couldn’t find a suitable sitter.

Moreover, the absence of mandatory licensing across all services in Singapore's pet sector exacerbates the difficulty of finding reliable sitters, as there are no standardized regulations to ensure quality and safety.

3.2 Architecture Overview

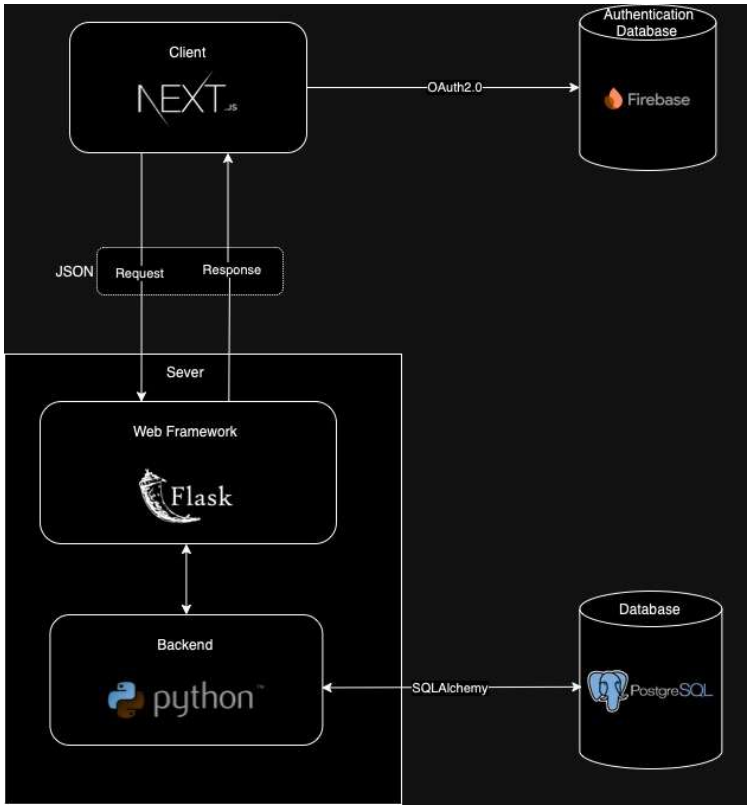

Fig 3.1 High-Level Architecture

4. ASSUMPTIONS, CONSTRAINTS, RISKS

4.1. Assumptions

- We assume that the software has not yet been deployed for public use but is nearing the stages of testing.
- We assume that the use-cases excluding that introduced in this release plan are near completion.
- Sub-systems of the application that are dependencies of this release plan include the front end system. Both changes 3.2 and 3.3 have consequences on the front-end development and there is a need for alignment among all team members.
- Release update 3.2 affects the back-end development as well due to the need of new APIs. There must be strong communication between the relevant teammates to ensure smooth development and deployment.

4.2. Constraints

Scalability:

- The application is designed for small to medium-scale usage but may face challenges when handling a larger user base or high transaction volumes.

- Cloud infrastructure (e.g., Azure) could experience performance issues during peak loads due to cost-related constraints, which may require additional resources or service upgrades.

Integration with External APIs:

- The platform relies on third-party APIs, such as Firebase for user authentication and Google Maps for location services.
- Any disruptions or changes to these services could result in functional limitations and would require code updates or alternative solutions.

Proprietary Software:

- The system uses proprietary technologies, including AWS services and GitHub for version control.
- Changes in licensing, costs, or support for these platforms could affect operations and may require migration to alternative tools, potentially causing delays or additional costs.

4.3. Risks

The top 3 risks are detailed in the Risk Management Log is provided in the table below:

Risk	Ramifications	Team Member in Charge	Course of Action
Inability to meet Project Deadline	Reduced functionalities or delay the deployment date.	Mishra Apurva	Have regular meetings and updates from the developer team to check on their progress.
Misunderstanding/Miscommunication of requirements from stakeholders	Requires us to redesign our application which delays the project	Mishra Apurva	Establish a clear set of requirements and ensure that it is signed and agreed by both parties beforehand.
Unavailability of project members.	Staff's work will not be completed.	Mishra Apurva	Transfer the workload to other staff workers in order to ensure that work is still

			completed by deadlines.

5. RELEASE APPROACH

5.1. Rationale

The release approach was designed to ensure that there is minimal confusion and ambiguity in the system's new releases. To achieve this, the team incorporated comprehensive documentation, version control systems, and management plans. The changes must be holistically viewed in the team's efforts.

5.2. Release Strategy

The release strategy will follow a phased functionality deployment approach. The following steps will be taken for smooth implementation. Considering the release strategy is only rolled out for internal use and testing, a deployment strategy is not included.

1. Release Update Meeting:
Initial meeting for resource and capacity planning among team members as well aligning with management on business requirements. Regular meetings ensure all team members are aligned on project goals, tasks, and timelines, addressing concerns and keeping everyone updated.
2.Branch Resolution:
A new branch is created to integrate features progressively, maintaining stability in the main codebase while allowing continuous development and testing.
3.Documentation Consistency:
All changes are documented immediately to keep the entire team informed and ensure accurate tracking of updates and modifications.
4.Immediate Communication:
Quick, clear communication between members ensures issues and requests are addressed promptly, preventing delays.
Testing:
Continuous testing identifies and resolves issues early, ensuring new features are stable before integration into the main system

5.2.1. Release Content

Release Version	Feature/ Patch Update	Description
1.1	UI – Update	To increase the aesthetic sensibility of the software and attract users, the UI design was re-done

1.2	Interets page	To ensure smoother user experience in the application an additional functionality of viewing activity across sitting, events and adoption is introduced.

5.2.2. Release Schedule

Release Version	Feature/ Patch Update	Intended Release Date	Team Member in Charge
1.1	UI – Update	17th October 2024	Gambhir Dhruv
1.2	Interest page	22nd October 2024	Tan Jing Jie

5.2.3. Release Impacts

1. Release version 1.1 impacts development of all front-end features until the new UI is resolved across the entire application

2. Release version 1.2 impacts the backend server functionalities and requires new APIs.

7. ACRONYMS

API Application Programming Interface

UI User interface

8. APPENDICES

Appendix A

Update 1: Aesthetic improvements

Original User Interface

The user interface was decided to produce a clean and polished aesthetic experience.

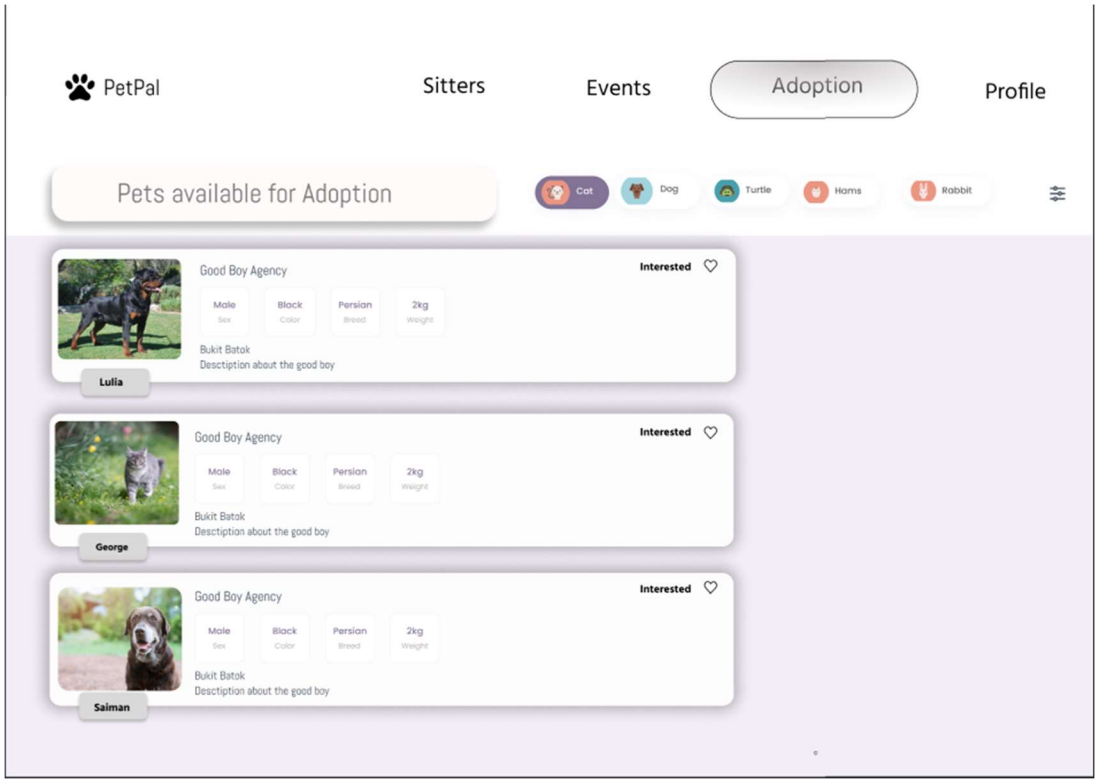

Fig 3.1 UI for Adoption

New user interface

To increase the attractiveness and visibility of the platform, the team unanimously agreed to improve the colour palette used for the website which will be incorporated in the new release.

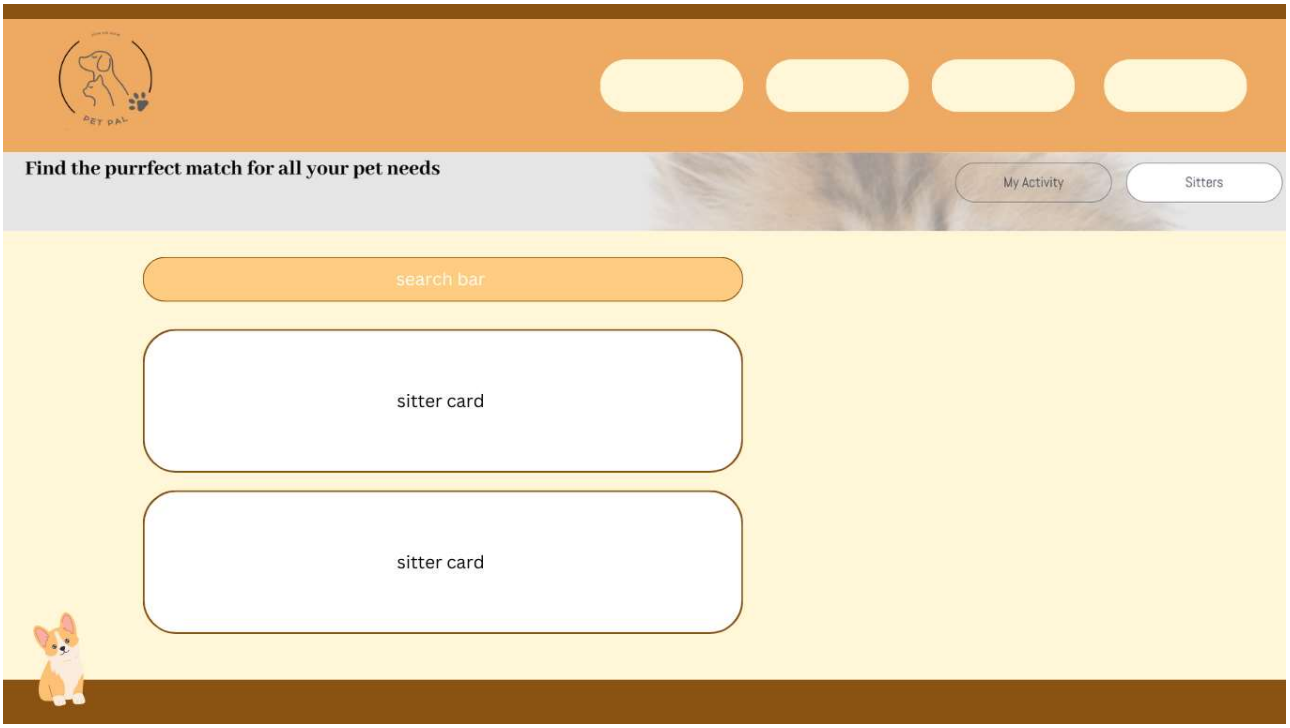

Fig New colour palette for UI.

Update 2: Interest page use case

Use-case Diagram Ver 1.0

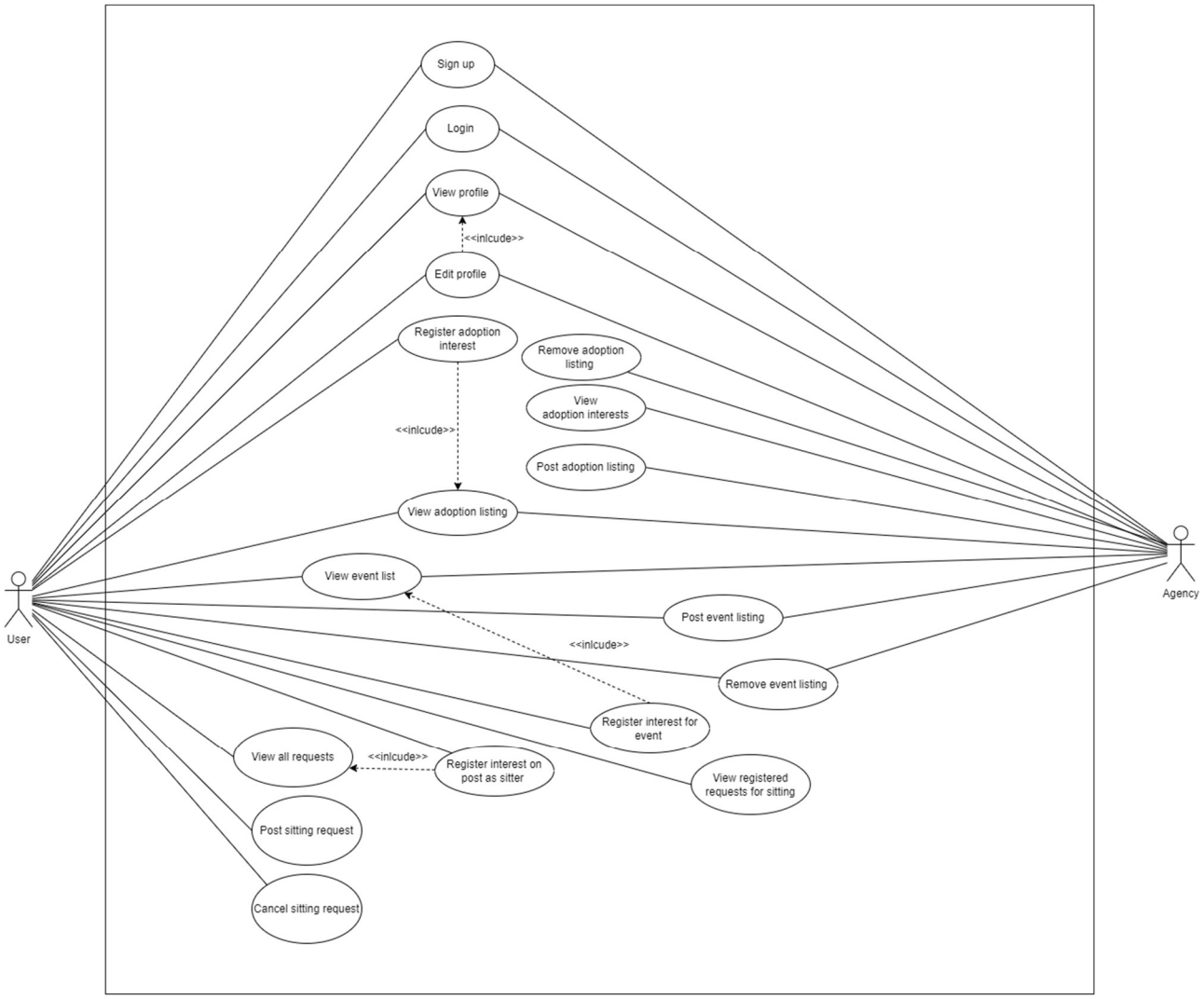

Fig Use case diagram 1.0

Upon re-examining the use-case and realigning the goals and objectives our platform aims to achieve, the team decided to include an ‘Activity page’ that will include the posts the user has engaged with on the application. This would enable a smoother user application as relevant information is not consolidated in one area of the application.

Updated Use Case Diagram 1.2

Fig Updated use case diagram 1.1