Product Documentation

< *Companion Finder* >

Department of Computer System Technology

CSTP2204: IT Development Project

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What are we solving?

- ## PROBLEM OVERVIEW

In today's fast-paced and demanding world, pet owners often find themselves in situations where they are unable to tend to their furry companions. Whether it's a much-needed vacation or an urgent business trip, pet owners are often faced with the challenging task of finding suitable care for their pets while they are away. Additionally, long working hours or unexpected medical emergencies can make it difficult for pet owners to provide the necessary attention and care for their pets.

- ## ASSUMPTIONS

We assume that there is a significant demand for pet sitting services and that pet owners are willing to pay for quality pet care. Additionally, we assume that there are many pet sitters who are looking for new clients, but they lack a platform to advertise their services. Finally, we assume that there is a need for a platform that simplifies the process of finding a reliable pet sitter for pet owners.

- ## CURRENT VERSIONS

Versions 1.1

- ## FUTURE VERSIONS

Versions 1.2

- Forgot Password / Reset Password
    1. By sending a reset password link to the registered user's gmail. But this method requires us to establish SMPT support and be able to reach Google's security settings.
    2. When the user registers, the user is required to fill in the security question and store it in the database. When the user forgets their password, the user can enter the reset password page by answering the correct security question.
- Message notification
- Real-time chat
- Contact Us

Versions 1.3

- Review feature

Once the pet sitter has completed their services for the pet owner, it is customary for the owner to provide a review of their experience with the sitter. This review serves as a valuable tool for other potential customers who may be seeking reliable and trustworthy pet care providers.

- Filter by reviews
- Home page recommendations by reviews

WHY IS THIS PROJECT CREATED?

By developing a comprehensive platform that connects pet owners with experienced and reliable pet sitters. Our platform serves as a vital resource for pet owners who require assistance in taking care of their pets during times when they are unable to do so themselves. Through our platform, pet owners can rest easy knowing that their furry companions are in good hands and receiving the care and attention they deserve.

Our platform also acts as a bridge between pet owners and pet sitters, facilitating trustworthy and dependable services for both parties. Pet sitters provide a much-needed service that allows pet owners to go about their daily lives without worrying about the wellbeing of their pets. Whether it's feeding, walking, or providing medical attention, our pet sitters are well-equipped to handle a variety of pet-related needs.

In conclusion, our platform serves as an essential resource for pet owners in need of reliable pet care services. By connecting pet owners with trustworthy and experienced pet sitters, we aim to provide peace of mind and ensure the wellbeing of beloved pets.

TARGET AUDIENCE / PRIMARY USERS

- Any users who wants to become a pet sitter or loves to take care of pets
- Pet owners who are unable to take care of their pets.

HOW IT WORKS?

FEATURES

- ### Homepage

  The website homepage will be the default welcoming page for any first time users who want to either search for a pet sitter or become a pet sitter themselves. There are several sections in the homepage: a simple guide detailing how the website works, pet sitter recommendations list, and about us section coupled with links or buttons that goes straight to website register/login page

- ### User Register

  Users can use their own email address to register for an account. When registering, you need to set a minimum 6-digit password, including an uppercase letter, a lowercase letter and a special symbol. Also confirm password and password need to be the same, otherwise you will get an error message.

- ### User login

  When logging in, users will have the choice to either log in by using Google Authentication or type in the user email and password which they had already registered.

  If the user chooses to use google authentication to log in, it will first check whether the Gmail address exists in the User database, if not, the user needs to enter the register page to select the userType, the Gmail address and a fixed password, and the user type will be stored in the database.

- ### Create user profile (According to user type)

  Upon successful registration and login, the new user will be directed to their respective user profile page based on their user type. The user will be prompted to upload an avatar image and fill in their name. In the event that the chosen name has already been taken by another user, a gentle reminder will be issued to encourage the selection of an alternative name.

  While other user information is optional, we highly recommend that users provide comprehensive and accurate details about themselves to enhance the discoverability of their profile. This will enable other users to learn more about them, their experience, and their availability as a pet sitter. Ultimately, the more complete and informative the user profile, the greater the likelihood of successful connections between pet owners and pet sitters on our platform.

- **Update User Profile**

  Once a user has completed their profile setup, they will be unable to modify their name and email. However, should the user wish to make changes to their profile, they can do so by navigating to the profile page via the profile button located in the drop-down menu of the header.

  On this page, the user can modify their user information as needed, such as their profile picture or any additional details they wish to provide. In addition, users can also change their password via this page.

- **Post a Request (According to user type)**

  If users wish to post their own request, they can do so by clicking on the "Post Request" button located on the header of the website. The post page will be tailored to the specific user type, ensuring a seamless and intuitive experience for all users.

  On the post page, users will be prompted to provide comprehensive and accurate information about their request.

  To ensure that the post is discoverable and searchable by other users on the platform, it is imperative that all fields are completed in their entirety.

- **Dashboard for Post Update and Delete**

  The dashboard serves as a central hub for all of the user's posts, allowing for easy access and management of their requests. Upon clicking on the "dashboard" button located in the header's drop-down menu, users will be directed to the dashboard page.

  From the dashboard, users can view all of their active and past posts. Should the user wish to make changes to a specific post, they can do so by clicking the edit button located next to each post.

  Additionally, users also have the ability to delete posts that are no longer relevant or necessary.

  By allowing for easy editing and deletion of posts, we hope to provide users with a high degree of flexibility and control over their requests.

- ### Browsing List - Find a Pet Sitter (Pet Owner)

  Our platform provides a comprehensive and user-friendly search feature that enables pet owners to find suitable pet sitters based on a range of criteria. By navigating to the "Find a Pet Sitter" page, users can search for available sitters by applying filters according to province, city, service items, and price.

- ### Browsing List - Get a Job(Sitter)

  Our platform offers a streamlined and intuitive search function that enables pet sitters to search for relevant job opportunities based on a range of criteria. By navigating to the "Get a Job" page, sitters can use filters to search for available jobs according to province, city, pet type, as well as pet age and weight.

- ### Live-Chat

  Through the Message button in the drop-down bar under the header, you can enter the Live chat page, where users can chat with other people

WIREFRAMES

- **Scenarios Step by Step**

KNOWN ISSUES

- Current users can view their own requests on the Browsing List page. So this means that users can message themselves and be able to communicate with themselves.

Design

- ## Motivation

When it comes to our website design, we decided to do a simple and clear design but later on improve it along the way. At first, we were going to use React for our webpage but decided that we are going to use normal EJS and a combination of Bootstrap and CSS for mobile view design. The reason why we chose these languages was to further improve our understanding in using them and to find ways of using them efficiently. Our website will mainly use green as the main color palette because green is the color of nature and is usually associated with animals.

- ## Requirements
    - Make the website responsive
    - Website color theme is mainly green
    - Creating functions such as creating, posting, delete, and update for job post pages
    - Creating a live-chat between pet sitter and pet owner
    - Creating a browsing list and a search filter for easier search
    - Create a security validation for user login and register
    - Use third party authentication such as Google for user registration
    - Separating user according to their user type: pet sitter or pet owner
    - Creating pet sitter and pet owner profile for user

- ## Future requirements
    - Creating a rating system for pet sitter users
    - Further improving on homepage pet sitter recommendation list according to the rating system
    - Creating a slider for pet sitter rate input

- ## Design Choices
    - **Current Wireframe**

- ## Open Questions

Is there anything that needs further discussion?

Technical

The tech stack used in this project includes :

Node.js: Node.js is an open-source, cross-platform JavaScript runtime environment that allows developers to run JavaScript on the server-side. It is built on Chrome's V8 JavaScript engine and enables the creation of fast and scalable network applications.

JavaScript: JavaScript is a high-level, dynamic, and interpreted programming language that is commonly used in web development. It is often used to add interactivity and dynamic behavior to web pages.

Embedded JavaScript templating (EJS): EJS is a simple templating language that enables developers to embed JavaScript code in HTML markup. It allows for dynamic content creation and makes it easier to generate HTML pages using data from a web application's back-end.

MongoDB: MongoDB is a document-oriented NoSQL database that stores data in a JSON-like format called BSON. It is designed to be highly scalable and flexible, making it an excellent choice for applications that require rapid development and deployment.

Mongoose: Mongoose is a JavaScript library that provides a schema-based solution for modeling data in MongoDB. It simplifies interactions with MongoDB by providing a high-level API that abstracts away the complexities of working with a document-oriented database.

Cloudinary: Cloudinary is a cloud-based image and video management platform that provides developers with tools for uploading, storing, manipulating, and delivering media files. It offers features such as image optimization, responsive image delivery, and video transcoding.

Firebase: Firebase is a mobile and web application development platform that provides a set of tools and services for building and scaling applications. It includes features such as real-time database, authentication, and hosting. Firestore is a cloud-based database that is part of the Firebase platform.

Cascading Style Sheets (CSS): CSS is a style sheet language used to describe the presentation of a document written in HTML or XML. It allows developers to separate the content of a web page from its visual design, making it easier to create and maintain consistent styles across multiple pages.

Dependencies:

- Dependency Graph

Data Flow:

- Data Flow

System Components:

- Gengeral
- Browsing List (Pet Owner)
- Dashboard
- Profile Create and Update

Third Part Components:

- Google OAuth
- Google OAuth Flow