



Software Requirements Specification

Made for - Vet Scout

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1. Introduction

This section gives a description and overview of everything included in this SRS document. Also included in the document is the purpose, a list of abbreviations and definitions used.

1.1 Purpose

The purpose of this document is to give a detailed description of the Vet Scout software. It will illustrate the meaning and complete declaration for the development of the system. It will also explain system constraints, interface, and interactions with other external applications. The primary intention of this document is to act as a reference for developing the first version of the software for the development team.

It will also be a software validation document for the prospective client.

1.2 Scope



Vet Scout is a cutting-edge price comparison solution that empowers veterinarians, small and midsize veterinary clinics, and hospitals in their search for the best and most affordable vet products. With products from all the major vendors and manufacturers and transparent pricing, Vet Scout helps Veterinary professionals and nonprofits find the best products from the most trustworthy vendors at affordable prices. Registered members can log in using the web portal and the app features to order supplies from participating vendors at clinic-specific prices, track vendor rebates, and participate in reward programs.

The application intends to facilitate the search for competitive pricing on veterinarian products, and provide end-users with a real-time inventory of vet products. All system information is maintained in a database located on a web server.

The software needs an Internet connection to fetch and display results.

1.3 Definitions, Acronyms, and Abbreviations

Term	Definition
User	Someone who interacts with the web application. In this case, Veterinary professionals and nonprofits.
Web-Portal	A web application which presents special facilities for Veterinary professionals.
Session	The time which a User is actively using the system Shopping Cart An object that lists a Customer's selected Items, their applied promotions and gives them an option to check out
GIST	A short, simple description of the concept contained in a Programming Language statement.
TAG	A unique, persistent identifier contained in a Programming Language statement.
SCALE	The scale of measure used by requirement contained in a Programming Language statement.
METER	The process or device used to establish a location on a SCALE contained in a Programming Language statement.



MUST	The minimum level required to avoid failure contained in a Programming Language statement
WISH	A desirable level of achievement that may not be attainable through available means contained in a Programming Language statement.

2. Overall Description

This section will give an overview of the whole software. This section will also describe what type of users will use the software and what functionality is available for each class. Further, we will also mention the system constraints and assumptions about the product.

2.1 Product Perspective

Vet Scout offers one-stop solution for veterinary practices by combining product pricing, availability, and promotions from all vendors & manufacturers. It uses extensive price comparison to help Veterinary professionals and nonprofits find the best products from the most trustworthy vendors at affordable prices. The application aims to provide a free online marketplace for veterinary professionals and nonprofits based on cutting-edge technology.

The Vet Scout app helps users compare the prices and inventories of vet care products online and purchase them without visiting the vendor's online store. The online shopping system will use the Internet as the sole method for selling goods to its consumers. Clinics, hospitals, & veterinarians will be the primary user of the application.

2.2 Product Functions

This section will detail the various features the end-user can use for different purposes.

1. Register- First, the users must register to access the application by creating a new account. Using the "Create New Account" function, users should be able to initiate the registration process by filling in their details, such as practice name, address, and email/phone.



It's the MORE that matters


More Benefits


More Savings



More Insight


More Support



User Sign In

Remember Me
 Forgot Password?

Sign In



Don't have an account? [Click here to create one](#)



Step 1 : Enter Your Details For Registration





Next


With these details, the app redirects users to the next page, where they should get the option to select vendor preferences.





Step 2 : Add Group Skip

 Share My Purchasing And Rebate Data
[See privacy policy](#)





















Next

Activate V

After selecting the vendor preferences, the app should redirect users to the "Add Vendors" page, where they will share the username and passwords of different registered vendors.



 Step 3 : Add Vendors

		<input type="text" value="Username"/>	<input type="text" value="Password"/>	Verify Vendor Credentials
<hr/>				
		<input type="text" value="Username"/>	<input type="text" value="Password"/>	Verify Vendor Credentials
<hr/>				
		<input type="text" value="Username"/>	<input type="text" value="Password"/>	Verify Vendor Credentials
<hr/>				
	COMING SOON			
<hr/>				
		<input type="text" value="Username"/>	<input type="text" value="Password"/>	Verify Vendor Credentials
<hr/>				
		<input type="text" value="Username"/>	<input type="text" value="Password"/>	Verify Vendor Credentials

Once these vendor credentials are verified, the registration process should be complete. Users should be allowed to create their username(email) and password to log in to the Vet Scout application.



2. User Sign-in- Registered users must sign in using the username(email) and password to access the application features.

It's the MORE that matters

More Benefits

More Savings

More Insight

More Support

User Sign In

Remember Me [Forgot Password?](#)

Sign In

Don't have an account? [Click here to create one](#)

3. Forgot Password - The Forgot Password page should prompt the user to provide the Email with which he/she is registered with Vet Scout. It should also allow **"Sign In"** if the user already has an account.

It's the MORE that matters

More Benefits

More Savings

More Insight

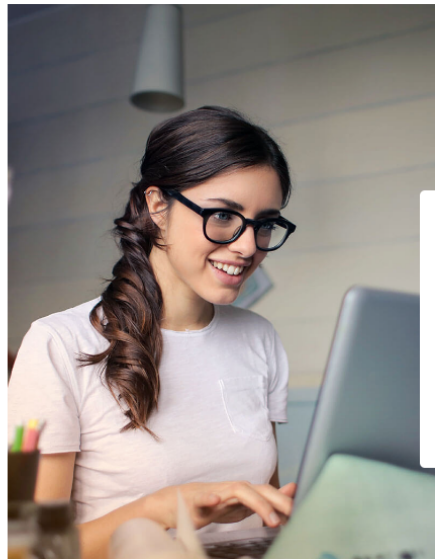
More Support

User Sign In

Remember Me [Forgot Password?](#)

Sign In

Don't have an account? [Click here to create one](#)



Forgot Password?

Enter Your Email *

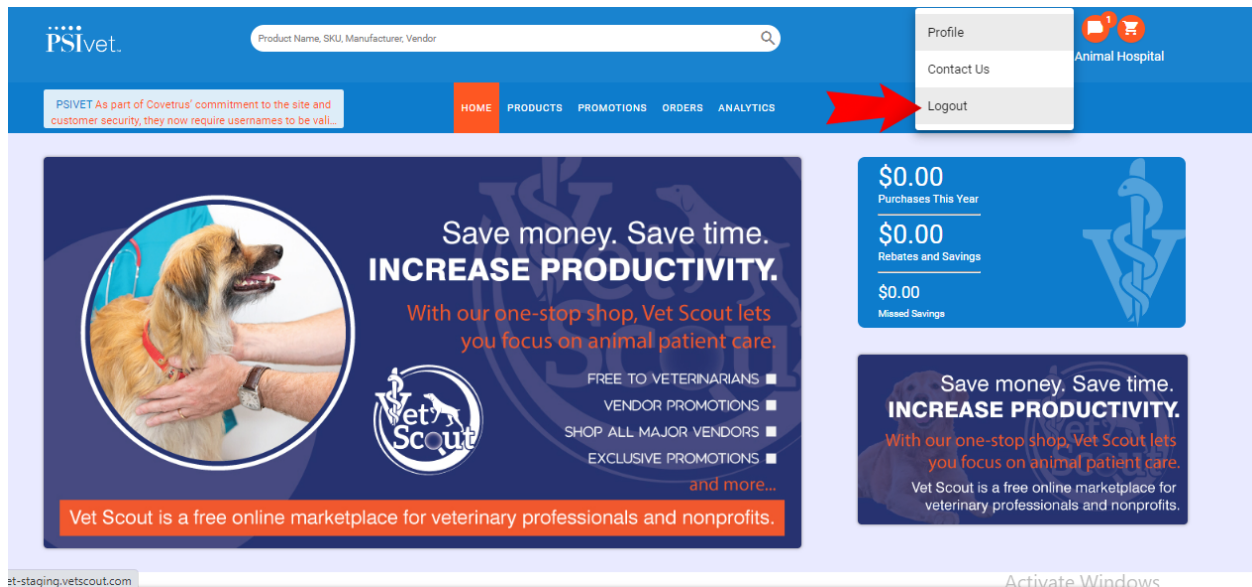


Submit

If have an account then [Sign In](#)

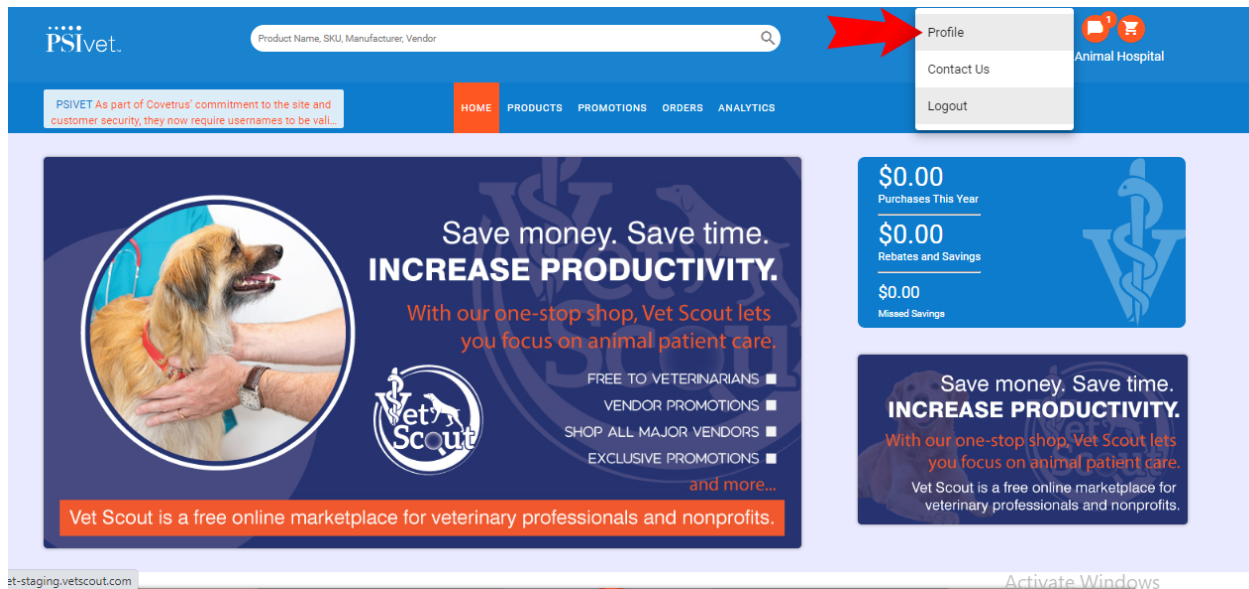
4. Settings- Users can adjust the application's settings at their convenience under this section.

5. Logout- Once the users complete the desired tasks on the application, they can log out by clicking on the logout option in the Profile section.

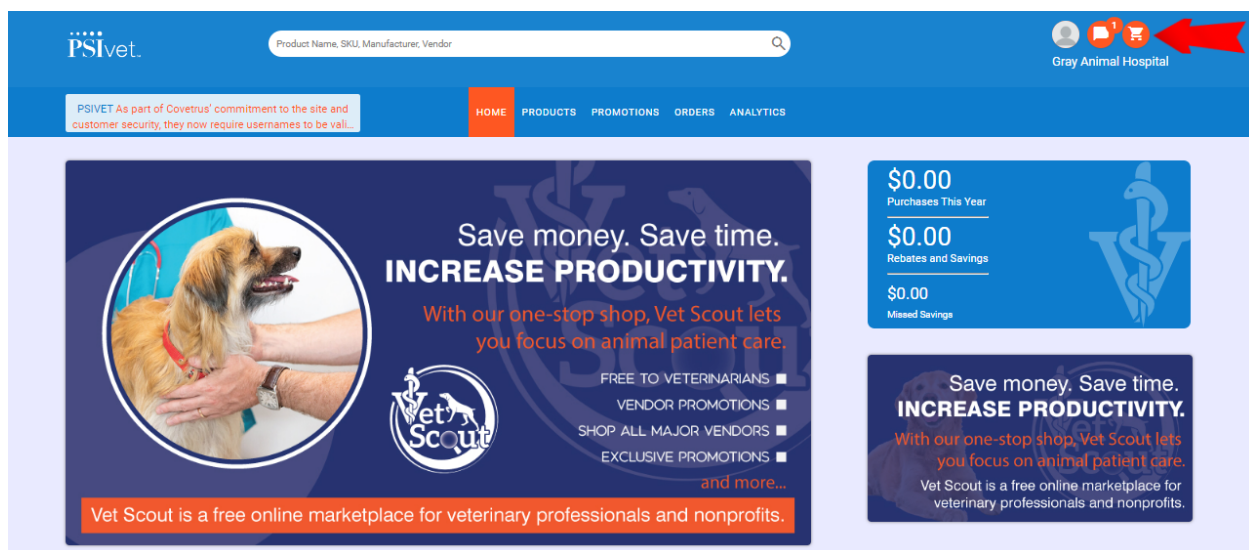


6. Exit- The users can exit the application by double click on the back-forward icon.

7. Profile- Users can view and edit their profile under this section. They can also edit their practice information. Besides that, users can also activate and deactivate additional users of their profile. Users can also update the details for their vendor accounts in the Profile section.



8. **Cart-** Users can view the list of products added to their cart under this function.



2.3 User Characteristics

The user type that will interact with the system includes veterinarians and their staff. Veterinarians will interact with the application to compare prices for different veterinarian care products and purchase them at a clinic-specific price.



For the users (veterinarians and their staff members) to get a relevant search result, there are multiple criteria they can specify.

Technical Expertise: All the users need to have minimum technical expertise (need to know how to use the mouse and keyboard).

2.4 Constraints

The application is constrained by the server and database capacity. However, both constraints are scalable, and we can easily add additional capacity.

Internet connection is also a constraint for the application. Since the application fetches data from the database over the Internet, there must be an Internet connection for the application to function.

2.5 Assumptions and Dependencies

The product is a web-based application that users can access through a web portal/browser. The application is based on Windows, Mac, or mobile frameworks. The web application is perfect to be operated on all modern browsers, including Google Chrome, Safari, Firefox, Microsoft Edge, and all the other browsers equipped with the latest JavaScript.

Languages implemented in the application - Java and ReactJS

User Identification Procedure - All users must have unique email address

Application Constraints - Database Capacity

3. Specific requirements

This section contains all of the functional and quality requirements of the system. It gives a detailed description of the system and all its features.

3.1 External interface Requirements

This section provides a detailed description of all inputs into and outputs from the system. It also gives a description of the hardware, software and communication interfaces and provides basic prototypes of the user interface



3.1.1 User Interface for web application

The user interfaces of the web application should be intuitive and user-friendly. The application GUI should provide menus, toolbars, buttons, panes, and grids, allowing easy control using a keyboard and a mouse.

1. Login Page- The login page is for authenticating the registered users. First-time web application users should see the login page when they open it.

This screen should accept the user ID and password. It should also provide features for 'New user registration,' 'Forgot password,' and 'Forgot user ID.'

If the users are not registered, they should be able to do that on the login page.

After successfully logging in, users should be able to see the home page directly. Here the users choose the type of search they want to conduct.

Every user should have a profile page where he/she can edit their email address, phone number, and password. Users should access the profile page through the profile icon on the home page.

2. Header- The header should have the Search Bar, Message, Notification, Points, Announcements, Cart, and Profile buttons. Users should be able to access user interfaces like Products, Promotions, Rewards, Orders, Analytics, and Partners from the header.

3. Search Bar- In the search bar, the users should be allowed to choose the type of search they want. When the users search, this view should be the default one. The Search results should allow the users to access the information based on the keywords they entered.

4. Announcements- In this section, the users should be able to view important notifications related to specific vendors.

5. Profile- The user should have a profile page on the web application. On the profile page, the users can edit their information, which includes their password, email, and phone Number. The profile icon dropdown should have three subsections: Profile, Contact Us, and Logout.

6. Dashboard- The dashboard should be the homepage of the web application and should display the messages received by the users and updates on orders placed by them.



7. Products - The products section is where the users should be able to view their favorites, shopping list, order history, and a complete list of products. This section will have four subsections: Favorites, List, Previous Orders, and All Products. The users can add products to the shopping cart using all these four subsections. For the users (veterinarians and their staff members) to get a relevant search result, there are multiple criteria in each subsection they can specify. They should also be able to filter results based on Product name and Manufacturer. They should also be able to sort the list according to Product Name, price, and frequently purchased items.

8. Promotions - The Promotions section is where the users should be able to view the promotional offers of different vendors and products. They should also be able to filter results based on Product name and Manufacturer. This section should have two subsections, General and Exclusive. The former should provide information about General promotions, whereas the latter section should target promotions and deals exclusive to vendors and products.

9. Rewards - The Rewards section is where the users should be able to gain information about PSIVet rebates, PSIVet savings, estimated rebates, and missed savings. The Rewards section dropdown should have four subsections: PSIVet Rebates, PSIVet Savings, Estimator, and Rewards Programs.

The PSIVet Rebates page should inform users about the date, description, amount, and type of PSIVet Rebates in the Rebates Section. The page should also include the Savings section informing users about the Order Date, Order Number, and Total Savings. Besides that, there should be a section named Missed Savings to educate users about the amount of missed savings on each order.

The Estimator page should include a graphical illustration informing the users about the amount they need to spend for each vendor to attain a certain rebate on that purchase. The information should be classified according to different vendors.

The Rewards Program page should display Covetrus PSIVet Partners Programs and Covetrus Compounding Program.

10. Orders- The order management section should display the details and status of the orders. The Orders section should have six subsections: History, Backordered, By Product, By Manufacturer, Budgets and Invoices. In order history, the users should be able to view previous orders placed on the Vet Scout website and the orders they have previously placed for a specific vendor on the vendor's website. In the Backordered section, users should be able to update the status of the products they have backordered. Users should be able to check the order history arranged as per Products and Manufacturers under the By Product and By Manufacturer section. The Budget section should allow the users to keep track of their spending v/s allocated budget on a weekly, monthly, and quarterly basis.



11. Analytics - This section should allow the users to view the data related to their purchases. The Analytics section should be categorized into three subsections: By Merchant, By Manufacturers, and By Product. Each section should provide information about the total number of orders, average order size, and percentage of the total for each Merchant, Manufacturer, and Product separately. Users should be able to download this information by clicking on the Export Icon.

12. Partners - This section should provide information about different Vet Scout partners for Healthcare, Manufacturing, Office/Sanitary Supplies, Telemedicine, Human Resources, Financial Services, Online Pharmacy, Specialty, Compound Pharmacy, Pet Food, Health Certificates, Surgical Supplies, and Associations.

13. Add to Cart - This section should allow users to view the products they have added to their cart, review them and place an order. The page must include product information, price, and added product quantity.

14. Bucks - This section should allow users to view all the Transactions amount and types.

3.1.2 UI For Mobile Application

The user interfaces of the mobile application should be intuitive, consistent, designed for fast page loading, and user-friendly. The application GUI should provide menus, toolbars, buttons, panes, and grids, allowing easy navigation.

1. Sign In Page- The login page is for authenticating the registered users. A first-time web application user should see the login page when he/she opens the application. This screen should accept the user ID(Email) and password. It should also provide features for 'New user registration' and 'Forgot password'. If the user has not registered, he/she should be able to sign up for Vet Scout on the login page.

2. Forgot Password - The Forgot Password page should prompt the user to provide the Email with which he/she is registered with Vet Scout. It should also allow **"Sign In"** if the user already has an account.

3. Sign Up - This page should be for first-time users who aren't yet registered.

Sign Up - Step 1 - This page should allow the users to enter the details for Registration, including their Practice Name, Phone, Address, Email, and Password.



Sign Up - Step 2 - GPO - This page should prompt the users to add Groups(Parent Companies) like PSI Vet.

Sign Up - Step 3 - Vendors - On this page, users should be able to add credentials for the vendors they want to purchase products from using Vet Scout. There should be a button to verify the username and password provided by the user.

4. My Profile - The user should have a profile page on the web application. Users can edit their information on the profile page, including their password, email, and phone number.

5. Promotions - The Promotions page is where the users should be able to view the promotional offers of different vendors and products. They should also be able to filter results based on Product name and Manufacturer. This section should have two subsections, General and Exclusive. The former should provide information about General promotions, whereas the latter section should target promotions and deals exclusive to vendors and products.

6. Rebates - This page should include a graphical illustration informing the users about the amount they need to spend for each vendor to attain a certain rebate on that purchase. The information should be classified according to a different vendor.

7. Notifications - On this page, users should be able to select the Vendors for which they want to receive notifications for email confirmations.

8. Transactions - This page should allow users to view all the Transactions amount and types.

9. Orders- The order management section should display the details and status of the orders. The Orders section should have six subsections: History, Backordered, By Product, By Manufacturer, Budgets and Invoices. In order history, the users should be able to view previous orders placed on the Vet Scout website and the orders they have previously placed for a specific vendor on the vendor's website. In the Backordered section, users should be able to update the status of the products they have back-ordered. Users should be able to check the order history arranged as per Products and Manufacturers under the By Product and By Manufacturer section. The Budget section should allow the users to keep track of their spending v/s allocated budget on a weekly, monthly, and quarterly basis.

10. Cart - This button should allow users to view the products they have added to their Cart, review them, and place an order. The page must include product information, price, and added product quantity.

11. History - On this page, the users should be able to view the history of their orders. The default view of the page will show the products classified as per the order numbers with the



latest order on the top. The users should be able to view the product's description, Vendor name, SKU, Price, Quantity, and Shipping Status.

12. By Product: On this page, the users should be able to view all the products they have previously ordered sorted according to the product name. The users should be able to view the detailed description of the product by clicking on the product's name.

13. By Manufacturer: On this page, the users should be able to view all the products they have previously ordered sorted according to the Manufacturer's name. The users should be able to view the detailed description of the product by clicking on the product's name.

14. Budgets - On this page, the users should be able to view their set weekly, monthly and quarterly budgets. The budget page should reflect the budget period, the budget amount, the spend amount, the remaining amount, the spending percentage, and the Spend v/s Budget. The users should have the option of adding a weekly budget. The users should also have the option to save and delete the budget.

15. Additional Users - On this page, the users should be able to add, edit or deactivate "additional users" who can operate their account

16. Contact Us - This page should allow users to communicate with **Vet Scout** by sending a message.

17. Log Out - This function should allow users to log out of their accounts.

3.2 Functional requirements

This section includes the requirements that specify all the fundamental actions of the software system.

3.2.1 Functional Requirement 1.1

User log-in

Description - Given that the user has registered, then the user should be able to log in to the web

Application. A first-time web application user should see the login page when they open it. This page should accept the user ID and password. It should also provide features for 'Creating New Account' and 'Forgot password'.



Creating a New Account - If the users have not registered, they should be able to do that on the login page. The first page should prompt the users to fill in their details such as Practice Name, Practice Phone, Practice Zip, First Name, Email, and Password. The next page should prompt the users to add (Groups Parent Companies) like PSI Vet.

They should also be able to regulate permissions for the select parent companies to access their purchasing and Rebate data. This page should have a Skip button, as this registration step is optional.

The next page should be the final step of the registration process. Here users should be able to add credentials for the vendors they want to purchase products from using Vet Scout. There should be a button to verify the username and password provided by the user.

If the verification is successful, the user should be able to login into the application using the email and password provided on the first page (Step 1 of the registration process)

Forgot Password - If the users have forgotten their password, they can click on the Forgot Password option on the Login Page. Clicking on Forgot Password should redirect the user to the Enter Email page. Given the user has provided a valid email address registered with Vet Scout, the email with a link to reset the password should be sent to the user.

RAT- For a user to log in to the web application.

3.1.2 Functional Requirement 1.2

User log-out

Description - This section should be included in the Profile function. Users should be able to log out of the application. The user should be able to terminate their session on the web application by clicking on the log-out button.

Rational - For the user to log out of the web application

3.1.3 Functional Requirement 1.3

Search

Description - The user should be able to search for products, manufacturers and vendors using the search box. The system would display the results matching their search terms such as Product Name, SKU, Manufacturer, and Vendor.



Rational - For a user to search for products, manufacturers, and vendors.

3.1.4 Functional Requirement 1.4

Profile

Description - The user should have a profile page on the web application. On the profile page, the users can edit their information, which includes their password, email, and phone Number. The profile icon dropdown should have three subsections: Profile, Contact Us, and Logout. The profile page should have the following buttons -

Profile - Clicking on Profile, the users should be able to view their profile page. Users should have a profile page where they can edit their personal information, such as phone, email, and more.

Practice: Here, the users should be able to add or edit their Practice Information.

Additional Users: Here, the users should be able to add, edit or deactivate "additional users" who can operate their account

Address: Here, users should be able to update and edit their shipping and billing addresses.

Notifications: Users should be able to select the Vendors for which they want to receive notifications for email confirmations.

Vendors: Here, users should be able to add or remove the Vendors from which they want to purchase products.

Groups: Here, users should be able to add the (Groups)parent companies of the vendors to their accounts. They should also be able to regulate permissions for the select parent companies to access their purchasing and Rebate data.

FAQ: This section should include Frequently Asked Questions.

Privacy Policy: This section should consist of the Privacy Policy.

Contact Us: This section should allow users to communicate with Vet Scout by sending a message.

Log Out: This function should allow users to log out of their accounts.

Rational - For a user to have a profile page on the web application, contact the Vet Scout team and Log Out of the application.

3.1.5 Functional Requirement 1.5



Header Search

Description - In the search bar, the user should be able to choose the type of search that they want to conduct. Also, the search results should allow the user to find relevant results based on the keywords they entered. The users should be able to filter their search results based on price, vendors and manufacturers. The default view of the search results should display 15 products per page. Users should be able to sort the search results according to the relevance of the products. The system should enable users to navigate between the search results. The application should notify the user when no matching product is found on the search

Rational - To let the user quickly find the features and functions.

3.1.6 Functional Requirement 1.6

Products

Description - The users should be able to view all products available in the Vet Scout's inventory using the Products function. "Products" will have four subcategories in the dropdown menu

- **My Favorites** - On the My Favorites page, the users should be able to see the products they have added to their wishlist. Each product should include images of the product and a dropdown menu for price comparison where the prices for different vendors will be listed in ascending order. **(If the prices offered by different vendors for a specific product are the same, the Covetrus price should be on top by default. Each price tab should have two icons displayed next to it.)**

The first icon should be either green, yellow or red. The green icon should represent that the product is in stock or will be available the next business day. If the product is not in stock, the icon should be red. The yellow icon should mean that the user needs to call a specific number to check availability or that the product is expected to be available on a particular date.

The second icon next to the product availability status icon should be the promotion icon that will display the promotion related to the DOUXO® S3 PYO B5G1 promotional offers(only applicable on the products offering this promotion. There should be an "Add to Cart" functionality for each product using which users can add products from their wishlist to



the cart. There should be an "add to shopping list" icon allowing users to add their favorite products to their personally created shopping list.

The users should be able to filter their search results based on price, vendors, and manufacturers. They should also be able to sort the list according to Product Name, price, and frequently purchased items. A view button that allows the users to view the page in different formats should be included in the page. **(The page should be viewed in the Default format.)** The users can select Default, List, and Wide view from the dropdown menu of the View tab.

There should be an "Export" button allowing users to download the list of previous orders.

- **My Shopping List** - On the My Shopping List page, the users should be able to view the products that they have added to the shopping list. They should be able to add products from their shopping list to the cart.

Each price tab should have two icons displayed next to it. The first icon should be either green, yellow or red. The green icon should represent that the product is in stock or will be available the next business day. The yellow icon should mean that the user needs to call a specific number to check availability or that the product is expected to be available on a particular date. If the product is not in stock, the icon should be red.

The second icon next to the product availability status icon should be the promotion icon that will display the promotion related to the DOUXO® S3 PYO B5G1 promotional offers(only applicable on the products offering this promotion.

There should be an "Add to Cart" functionality for each product using which users can add products from their wishlist to the cart. Users should also be able to sort the list according to Product Name, price, and frequently purchased items.

A view button that allows the users to view the page in different formats should be included in the page. The page should be viewed in the Default format. The users can select Default, List, and Wide view from the dropdown menu of the View tab.

An "Export" button should be next to the "View" tab, allowing users to download the previous orders list.

There should be an option to click on the product and view the detailed description and price comparison for a specific product. The detailed description page should also have an "add to cart" button and a "Add a Note" tab, allowing users to add a specific note about the product.



- **Previous Orders - This page should allow users to view all their previous orders.**

Each price tab should have two icons displayed next to it. The first icon should be either green, yellow or red. The green icon should represent that the product is in stock or will be available the next business day. The yellow icon should mean that the user needs to call a specific number to check availability or that the product is expected to be available on a particular date. If the product is not in stock, the icon should be red.

The second icon next to the product availability status icon should be the promotion icon that will display the promotion related to the DOUXO® S3 PYO B5G1 promotional offers(only applicable on the products offering this promotion).

There should be an "Add to Cart" functionality for each product using which users can add products from their wishlist to the cart. The page needs to include a "heart" icon allowing users to add products from their previous orders to their wish list of favorite products. Users should also be able to sort the list according to Product Name, price, and frequently purchased items.

A view button should be placed on the page to permit the users to view the page in different formats. Users should view the page in the Default format.

The users can select Default, List, and Wide view from the dropdown menu of the View tab. An "Export" button should be next to the "View" tab, allowing users to download the previous orders list.

There should be an option to click on the product and view the detailed description and price comparison for a specific product. The detailed description page should also have an "Add to Cart" button and a "Add a Note" tab, allowing users to add a specific note about the product.

- **All Products - The All Products option should allow the users to view the entire inventory of products available through Vet Scout organized in a list under various categories, for example, Analyzers, Dryers, and Equine Dentistry. The page allows users to view products in a classified manner. The application should display detailed information of the selected products.**

The system should provide browsing options to see product details. The users should be able to click on a specific category of products to view products in a list format. They should also be able to sort the list according to Product Name, price, and frequently purchased items.



There should be an option to click on the product and view the detailed description and price comparison for a specific product. The detailed description page should also have an "add to cart" button and a "Add a Note" tab, allowing users to add a specific note about the product.

The users should also be able to filter the products using filters like Preferred Products, My Favorites, Previous Orders, Promotions, and Rebates. The users should also have the option to filter results as per the availability of the products, price, and Manufacturer.

Rational - To allow the users to browse through the Vet Scout inventory of products, compare prices, add to cart, and wish list their favorite products.

3.1.7 Functional Requirement 1.7

Promotions

Description - The users should be able to view products with promotional offers. The viewers should be able to search for products using the page-specific search bar. Users can filter the search with SKU, Product Name, or Manufacturer's name.

This section dropdown should have two subsections -

- **General Promotions:** Under this section, users should be able to view general promotions and products falling under the category of general promotions.
- **Exclusive Promotions:** Under this section, users should be able to view promotions exclusive to PSI Vet.

Rational - To allow users to view promotional offers related to various products from different vendors and PSI Vet

3.1.8 Functional Requirements 1.8

Rewards

Description - The Rewards section is where the users should be able to gain information about PSIVet rebates, PSIVet savings, estimated rebates, and missed savings. The Rewards section dropdown should have four subsections: PSIVet Rebates, PSIVet Savings, Estimator, and Rewards Programs.

- The PSIVet Rebates page should inform users about the date, description, amount, and type of PSIVet Rebates in the Rebates Section. There should be a calendar option to select the date range for orders placed to view the rebates for those orders. An **"Export"**



button should allow users to download the data as a document. There should be a calendar option to select the date range for orders placed to view the rebates for those orders.

- The page should also include the Savings section informing users about the Order Date, Order Number, and Total Savings. An “**Export**” button should allow users to download the data as a document.
Besides that, there should be a section named Missed Savings to educate users about the amount of missed savings on each order. In the Missed Savings section, users should have an option to add a note against the missed savings amount.
- The Estimator page should include a graphical illustration informing the users about the amount they need to spend for each vendor to attain a certain rebate on that purchase. The information should be classified according to different vendors.
- The Rewards Program page should display Covetrus PSIVet Partners Programs and Covetrus Compounding Program.

Rational - To allow users to track rebates, missed savings, and reward programs.

3.1.9 Functional Requirement 1.9

Orders

Description - Under this section, the users should be able to view their orders' history, including the products' details. They should also be able to view the status of their orders. This section dropdown will have six subsections: History, Backordered, By Products, By Manufacturers, Budgets, and Invoices.

- **History:** On this page, the users should be able to view the history of their orders. The default view of the page will show the products classified as per the order numbers with the latest order on the top. The users should be able to view the product's description, Vendor name, SKU, Price, Quantity, and Shipping Status. The system should allow user to select the order from the order history. The page should display the detailed information about the selected order

For products ordered under PSI Vet's eco-friendly Greenship Program, there should be an icon of a green vehicle representing the status.



A “**Favorites**” icon should be included in the page allowing users to add any product from their history to their wishlist. The users should be able to filter their search results based on price, vendors, manufacturers, and shipping status. They should also be able to sort the list according to newest to oldest orders and vice versa. They should be able to sort the list alphabetically as well.

There should be a calendar option to select the date range for orders placed and an additional option to Print the order history list.

- **Backordered:** On this page, the users should be able to view the list of the products they have back ordered(place an order for a product that is temporarily out of stock.). The users should be able to view the back-ordered product's description, Vendor name, SKU, Price, Quantity, and Shipping Status.

Along with the above details, there should be an option under the "Actions" tab for the users to update the back-order status. They will have two options to select. First, the product has arrived, and second, the product is canceled. There should be a calendar option to select the date range for orders placed.

- **By Product:** On this page, the users should be able to view all the products they have previously ordered sorted according to the product name. The users should be able to view the detailed description of the product by clicking on the product's name.

The detailed description page should inform the user about the Shipping, Vendor, Price, Stock, Promotion Points, Redeem, and SKU. Users should also be able to increase the quantity of the products and add them to the cart. Users should be able to rate and review the product on this page.

- **By Manufacturer:** On this page, the users should be able to view all the products they have previously ordered sorted according to the Manufacturer's name. The users should be able to view the detailed description of the product by clicking on the product's name.

The detailed description page should inform the user about the Shipping, Vendor, Price, Stock, Promotion Points, Redeem, and SKU. Users should also be able to increase the quantity of the products and add them to the cart. Users should be able to rate and review the product on this page.

- **Budgets:** On this page, the users should be able to view their set weekly, monthly and quarterly budgets. The budget page should reflect the budget period, the budget amount, the spend amount, the remaining amount, the spending percentage, and the Spend v/s Budget.

The users should have the option of adding a weekly budget. The users should also have the option to save and delete the budget. The page should allow users to select the date range for which they want to save the budget and budget amount on the save budget page.

- **Invoice:** On the Invoice Page, the users should be able to view the invoices of their products purchased and Vet Scout transactions. The users should be able to filter their search results based on price, vendors, manufacturers, and shipping status. They should also be able to sort the list according to newest to oldest orders and vice versa. They should be able to sort the list alphabetically as well. A calendar option to select the date range for orders placed should be included in the page.

Rational - To allow users to view the history of their purchases, transactions, and budget allocation.

3.1.10 Functional Requirement 1.10

Analytics

Description - This section should allow the users to view the data providing insight into their purchase history from an analytical viewpoint. The Analytics dropdown will consist of three parts: By Merchant, By Manufacturer, and By Product.

- **By Merchant** - On this page, the users should be able to view the analytics for the Merchants whose products they have purchased. The page needs to include a graphic illustration of data analytics. The users should be able to select and deselect data for the merchant they don't wish to see.

The page also needs to include the data in a list form. The statistics should include the number of orders, average order size, total, and percentage of the total for each Merchant. The users should be able to arrange the view of the statistics in ascending or descending order and alphabetically.

- **By Manufacturer** - On this page, the users should be able to view the analytics for the Manufacturers whose products they have purchased. The page should include a graphical illustration of data analytics showing the top ten manufacturers and the percentage of products purchased by a specific user from them. The users should be able to select and deselect data for the manufacturer they don't wish to see from the statistical graphic.

The page should also display the data in a list form. The default list view of the data will have twenty rows displayed to the user. The user can select more or fewer rows on



display to view data. The “**Next**” button should take the user to the next page of the displayed manufacturers.

The statistics should include the number of orders, average order size, total, and percentage of the total for each Merchant. The users should be able to arrange the view of the statistics in ascending or descending order and alphabetically. The users should be able to filter their search results based on the product name. There should be a calendar option to select the date range for analytics. An “**Export**” button should also allow users to download the data as a document.

- **By Product** - On this page, the users should be able to view the analytics for the purchased Products. The page should include the data analytics in a graphic illustration form showing the top ten products and the percentage of products purchased by a specific user. The page needs to have the statistics in a list form as well. The users should be able to select and deselect data for the product they don’t wish to include in the illustration.

The default list view of the data will have twenty rows displayed to the user. The user can select more or fewer rows on display to view data. The “Next” button should take the user to the next page of the displayed products. The statistics should include the number of orders, average order size, total, and percentage of the total for each Merchant.

The users should be able to arrange the view of the statistics in ascending or descending order and alphabetically. The users should be able to filter their search results based on the product name. There should be a calendar option to select the date range for analytics. An “**Export**” button should allow users to download the data as a document.

Rational - To allow users to view analytics related to their purchases.

3.1.11 Functional Requirement 1.11

Partners

Description- This section should allow users to view various Vet Scot/PSI Vet Partners. Users should be able to view information about different VetScout partners for Healthcare, Manufacturing, Office/Sanitary Supplies, Telemedicine, Human Resources, Financial Services, Online Pharmacy, Speciality, Compound Pharmacy, Pet Food, Health Certificates, Surgical Supplies, and Associations.

Clicking on the link should redirect the users’ browser to PSI Vet’s Partner’s website.



Rational - To allow users to gain information about various Vet Scout Partners.

3.1.12 Functional Requirement 1.12

Add to Cart

Description - The system should provide a shopping cart during online purchases. The application should allow users to add/remove products from the shopping cart. This page should allow users to view the products they have added to their cart, review them and place an order. The page must include product information, price, and added product quantity.

There should also be an option to place the order on the vendor's website, where Vet Scout will transfer the user's basket to the vendor's shopping cart, and they can place the order. The page should also allow users to download the cart information in a PDF format.

Rational - To enable users to review the products in the cart and place an order.

3.3 Non-Functional Requirements

Non-functional requirements or NFRs are specifications describing the system's operational capabilities and constraints and attempting to improve its functionality. The following software system attributes should outline how well the application will operate -

3.3.1 Reliability

TAG: SystemReliability 24

GIST: The reliability of the system.

SCALE: The reliability that the system gives the right result on a search.

METER: Measurements obtained from 1000 searches during testing.

MUST: More than 98% of the searches.

PLAN: More than 99% of the searches.

WISH: 100% of the searches.



3.3.2 Usability

Learnability

For First Time Users:

First-time users should complete the search once they see the interface within two seconds. For price loading, the time frame for first-time users should be less than 8 seconds((As the app is fetching the price info from different vendors)

For Second-Time Users:

Returning users should complete the search for products once they see the interface within two seconds. For price loading, the time frame for returning users should be less than 2 seconds.

Efficiency

Once the app loads the products along with their vendors and prices, it should take less than a second to perform the primary function (the process of adding products to the cart and completing the ordering process.)

Memorability

If a user logs in, he/she should be able to return to the interface in up to three days and start working efficiently with it immediately, given the user browser is still active. **The system won't be logged out for three days (only if the browser is open).**

Errors

The error rate of users submitting incorrect details at the checkout page mustn't exceed 0 percent as the elastic search functionality autocorrects the typo errors.

3.3.3 Security

Communication Security

TAG: CommunicationSecurity

GIST: Security of the communication between the system and server.

SCALE: The messages should be encrypted for login communications using OAuth 2.0, JWT token, so others cannot get username and password from those messages.



METER: Attempts to get user name and password through obtained messages on 700 login sessions during multiple user testing(700).

MUST: 100% of the Communication Messages in the communication of a login session should be encrypted. All information should be encrypted in the JWT Token.

Communication Messages: Defined: Every exchange of information between client and server

User Login Security

TAG: UserLoginAccountSecurity

GIST: Security of accounts.

Scale: If a user tries to log in to the web portal with a non-existing account, then the user should not be logged in. The app should notify the user about login failure via a generic message stating "invalid username or password."

METER: 1000 attempts to log in with a non-existing user account during testing.

MUST: 100% of the time.

User Create Account Security

TAG: UserCreateAccountSecurity

GIST: The security of creating accounts for users of the system.

Scale: If a user wants to create an account and the desired username is occupied, the app should prompt the user that the id(email address) is already registered.

METER: Measurements obtained on 24 hours of usage during testing.

MUST: 100% of the time.

3.3.4 Scalability

The system must be scalable enough to support 700 user visits(700 vet practices) at the same time while maintaining optimal performance.

3.3.5 Performance

The landing page supporting 900-1000 users per hour must provide 6 second or less response time in a Chrome desktop browser, including the rendering of text and images over an LTE connection.



3.3.6 Portability

TITLE: Application portability

DESCRIPTION: A program running on Windows 10 must be able to run on Windows 11 without any change in its behavior and performance/ The application should be portable with iOS and Android(For Mobile App).

RATIONAL - : The adaptable platform for the application to run on.

DEPENDENCY: none

3.4 Performance Requirements

In this section, the expected performance requirement will be explained in detail.

3.4.1 Search Feature

TITLE- Search feature

DESCRIPTION- The search feature should be prominent and easy to find for the user

RATIONAL- For a user to find the search feature easily

3.4.2 Usage of the Search Feature

TITLE- Usage of the search feature

DESCRIPTION- The different search options should be evident and user-friendly

RATIONAL - For a user to perform a search easily

3.4.3 Usage of the Announcements Feature

TITLE- Announcements

DESCRIPTION- The announcement feature should be user-friendly and easy to understand.

RATIONAL - For a user to remain informed about important PSI Vet updates

3.4.4 Usage of the Add to Cart Feature

TITLE - Add to Cart

DESCRIPTION- The Add to cart feature should be user-friendly and easy to understand

RATIONAL - For a user to review and purchase products

3.4.5 Usage of the Profile Feature

TITLE - Profile

DESCRIPTION- The Profile feature should be user-friendly and easy to use

RATIONAL - For a user to edit profile information

3.4.6 TAG: ResponseTime

GIST: The fastness of the search

SCALE: The response time of a search



METER: Measurements obtained from 1000 searches during testing.

MUST: No more than 2 seconds 100% of the time.

WISH: No more than 1 second 100% of the time.

3.4.7 TAG: SystemDependability

GIST: The fault tolerance of the system.

SCALE: If the system loses the connection to the Internet or to the GPS device or the system gets some strange input, the user should be informed.

METER: Measurements obtained from 1000 hours of usage during testing. MUST: 100% of the time.

Design Constraints

Hard drive space

- API server: Total 100GiB, using ~50%
- VSC-PROD-DATA-SERVER: Total 100GiB, using ~85%
- RDS vsc-prod-db-instance: Total 1000GiB, using ~10%

Application Memory Usage

- API server: Total 16GiB, using 15-30%
- VSC-PROD-DATA-SERVER: Total 32GiB, using ~30-60%
- RDS vsc-prod-db-instance: Total 16 GiB, using 80-90%

4. Hardware Interfaces

Since the application must run over the internet, all the hardware required to connect with the internet will be the hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable.

Vet Scout also uses a JDBC drive to make a connection with the database.

4.1 Database Server System

Vet Scout uses Amazon Relational Database Service (Amazon RDS) to set up, operate, and scale a relational database in the cloud for production and staging. It provides resizable capacity



for an industry-standard relational database and manages common database administration tasks.

AWS server

(Code pipeline)- Automatic deployment

Vet Scout uses CodePipeline for fast and automatic deployment and release of pipelines and to ensure fast and reliable application and infrastructure updates. CodePipeline automates your release process's build, test, and deploy phases every time there is a code change based on the release model you define. That enables you to rapidly and reliably deliver features and updates. You can easily integrate AWS CodePipeline with third-party services such as GitHub or your custom plugin.

Cloudwatch -

CloudWatch is **a monitoring service for AWS resources and applications**. Vet Scout uses CloudWatch to monitor system performance for AWS applications and resources and to check the logs (Backend Logs)

Lambda -

Vet Scout uses AWS Lambda to add custom logic to AWS resources, such as Amazon S3 buckets and Amazon DynamoDB tables. It allows you to run code for virtually any type of application or backend service without provisioning or managing servers. You can easily apply it to compute data as it enters or moves through the cloud. (for jobs that should be running 24 hrs or any number of hours, you can configure on Lambda)

EC2 Instance of Windows server- For server purpose (Tomcat is used for deploying backend)

VPC-

Vet Scout uses VPC **to build a virtual network in the AWS cloud** - no VPNs, hardware, or physical data centers required. It makes it easier to define your network space and control how your network and the Amazon EC2 resources inside your network are exposed to the Internet.

Monolithic project of Spring Boot



For Mobile Application

Database used for Vet Scout's mobile application - MySQL

4.2 System Requirements

EC2 Instance of Windows server- For server purpose (Tomcat is used for deploying backend)

5. Software interfaces

Vet Scout is a stateless web application that uses JSON APIs to communicate with the backend API server. The application should support all modern web browsers(except Safari), which will make it convenient for the user to access the system with ease.

6. Communications interfaces

Vet Scout should use the Hypertext transfer protocol secure (HTTPS) Protocol for communication over the internet HTTPS is the secure version of HTTP, the primary protocol used to send data between a web browser and a website. HTTPS is encrypted to increase the security of data transfer.