

<Project Name>	Group 17 - Aria Math
Vision	Date: 14/03/2024

# Review and Recommendation System For ShopSmart (RRSS) Vision

## 1. Introduction

The vision document for RRSS marks the beginning of an exciting journey for ShopSmart. In the digital commerce landscape of the 21st century, we aim to provide better the user experience and product recommendations. RRSS strives to enhance users' shopping experiences and establish itself as a valuable asset on the ShopSmart platform by providing insightful recommendations. This vision document clarifies RRSS's mission, core objectives, and the path to achieving these goals.

## 2. Positioning

### 2.1 Problem Statement

The problem of	<i>Users encounter difficulty in accessing adequate insights and recommendations for specific products on general product sales platforms.</i>
affects	<i>Customer, seller</i>
the impact of which is	<i>This insufficiency in information adversely affects users' purchasing decisions and overall shopping experiences.</i>
a successful solution would be	<i>A successful solution would involve the implementation of a comprehensive online review and recommendation system that leverages user-generated content and advanced algorithms to provide tailored product suggestions, enhancing the overall shopping journey for users.</i>

### 2.2 Product Position Statement

For	<i>Users who are interested in shopping and product recommendations.</i>
Who	<i>Users interested in buying, selling, or sharing product recommendations within the online shopping community.</i>
The RRSS	<i>is a review and recommendation system.</i>
That	<i>Accessing personalized product suggestions and a wide array of items offered at competitive rates.</i>
Unlike	<i>Amazon</i>
Our product	<i>RRSS will focus on personalized product recommendations curated through user-generated content and community engagement, offering a more tailored shopping experience compared to traditional e-commerce platforms.</i>

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### 3. Stakeholder Descriptions

#### 3.1 Stakeholder Summary

Name	Description	Responsibilities
<i>admin</i>	<i>Administrators are professionals who hold significant authority, overseeing platform operations and ensuring adherence to policies. They manage user accounts, review content moderation actions, and implement system updates to maintain platform integrity and enhance user experience.</i>	<ul style="list-style-type: none"> <li>• Managing accounts, including registration, access permissions, and account settings</li> <li>• Reviewing content moderation actions and ensuring compliance with platform policies and guidelines</li> <li>• Enforcing platform policies by taking appropriate actions against violators, such as warnings, suspensions, or bans</li> <li>• Customizing review forms and setting parameters for user-generated content, ensuring relevance and accuracy</li> <li>• Monitoring user activity to detect and prevent fraudulent behavior, ensuring the integrity of the review and recommendation ecosystem</li> <li>• Conducting system updates and maintenance tasks to ensure optimal performance and security</li> </ul>
<i>merchant</i>	<i>Merchants are essential contributors to the platform, responsible for managing their accounts and addressing customer reviews promptly. They utilize analytics to monitor product performance and engage directly with users to offer personalized assistance and resolve any concerns.</i>	<ul style="list-style-type: none"> <li>• Enrolling in the system and sending enrollment requests to the administrator for approval</li> <li>• Logging into the system using their unique login ID and password</li> <li>• Accessing and managing their account, including updating personal information and changing passwords</li> <li>• Monitoring and responding to customer reviews, addressing concerns or feedback directly through the platform's communication channels</li> </ul>
<i>customer</i>	<i>Customer refers to an individual who utilizes the platform to explore product reviews, receive personalized recommendations, and make informed purchasing decisions.</i>	<ul style="list-style-type: none"> <li>• Creating and maintaining an account on the RRSS platform, ensuring accurate and up-to-date information</li> <li>• Engaging with product reviews, ratings, and recommendations, and contributing their own feedback to the platform</li> <li>• Interacting with merchants by asking questions, providing feedback, and participating in discussions to enrich the user experience</li> <li>• Adhering to platform guidelines and reporting any inappropriate content or activities to ensure a safe and supportive community environment</li> </ul>
<i>community moderator</i>	<i>Community Moderators are dedicated individuals entrusted with overseeing community interactions, maintaining order, and fostering a positive atmosphere within the online platform's community engagement module.</i>	<ul style="list-style-type: none"> <li>• Overseeing community interactions and maintaining a positive atmosphere within the platform</li> <li>• Enforcing community guidelines and ensuring adherence to policies by monitoring user interactions and content contributions</li> <li>• Providing assistance, guidance, and support to users to enhance their experience within the community</li> <li>• Collaborating with platform administrators, developers, and stakeholders to address user feedback and implement improvements</li> </ul>

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<b>Name</b>	<b>Description</b>	<b>Responsibilities</b>
<i>software developer</i>	<i>A software developer is a professional who specializes in crafting, building, implementing, and maintaining software applications or systems.</i>	<ul style="list-style-type: none"> <li>• Researching, designing, implementing and managing software programs, tools, processes and metrics</li> <li>• Identifying areas for modification in existing programs and subsequently developing modifications</li> <li>• Testing and evaluating new programs; maintaining</li> <li>• Determining operational practicality</li> <li>• Upgrading existing systems</li> </ul>
<i>software project manager</i>	<i>A project manager is a professional tasked with supervising the planning, execution, and finalization of a project within defined parameters such as time, budget, and scope.</i>	<ul style="list-style-type: none"> <li>• Activity and resource planning (time management etc.)</li> <li>• Organizing and motivating a project team</li> <li>• Cost estimating and developing the budget</li> <li>• Ensuring customer satisfaction</li> <li>• Analyzing and managing project risk</li> <li>• Monitoring progress</li> <li>• Managing reports and necessary documentation</li> </ul>
<i>software analyst</i>	<i>A software analyst, also referred to as a systems analyst or business analyst, is a professional specializing in the examination and assessment of software systems, processes, and needs to determine how technology can address business challenges or enhance operational efficiency.</i>	<ul style="list-style-type: none"> <li>• Gathering and analyzing user requirements, business objectives, and system functionalities</li> <li>• Clarifying project goals, defining project scope, and setting objectives for development projects</li> <li>• Writing detailed specifications, user stories, use cases, and functional requirements to meet needs</li> <li>• Analyzing existing software systems and business processes to identify areas for improvement</li> <li>• Tracking project milestones, identifying risks, and addressing issues to keep projects on schedule</li> </ul>
<i>software architect</i>	<i>A software architect is a professional tasked with designing and overseeing the structure of a software system or application.</i>	<ul style="list-style-type: none"> <li>• Understanding the requirements and constraints</li> <li>• Choosing and evaluating technology</li> <li>• Understanding that how the architecture works</li> <li>• Involvement in the hands-on elements of software delivery</li> <li>• Ownership of the architecture throughout the delivery</li> <li>• Introduction and adherence to standards and principles</li> <li>• Guidance and assistance to team members</li> </ul>
<i>software configuration manager</i>	<i>A configuration manager is a professional who oversees the configuration management process within an organization or project.</i>	<ul style="list-style-type: none"> <li>• Developing and implementing policies, standards, and guidelines for configuration management</li> <li>• Defining and documenting the various elements that make up the software or system</li> <li>• Reviewing &amp; approving proposed changes, assessing their impact, and coordinating implementation</li> <li>• Coordinating the release and deployment of software and system configurations</li> <li>• Conducting regular audits to ensure that the actual configuration matches the documented baselines</li> </ul>
<i>software tester</i>	<i>A software tester is a professional tasked with examining software applications or systems to uncover defects, bugs, and flaws prior to their release to end-users.</i>	<ul style="list-style-type: none"> <li>• Reviewing software requirements and preparing test scenarios, and executing tests on software usability</li> <li>• Analyzing test results on database impacts, errors or bugs, and usability</li> <li>• Preparing reports on all aspects related to the software testing carried out and reporting to the software designers</li> <li>• Participating in design reviews and providing input on requirements, product design, and potential problems</li> </ul>

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### 3.2 User Environment

RRSS's target users predominantly engage with the system through web applications. Typically, users access the platform individually, although collaboration and interaction among users are encouraged through community engagement features. The number of users involved in completing tasks varies, ranging from individual browsing and product research to active participation in community discussions.

Task cycles within RRSS can vary in duration depending on user activities. Users may spend varying amounts of time browsing products, reading reviews, or engaging in community discussions. Additionally, users may return to the platform multiple times throughout the day for different purposes, such as researching products during breaks or making purchase decisions in the evening.

RRSS primarily operates within a desktop-based environment, with support for mobile access through responsive web design. This ensures seamless access across different devices, offering flexibility and convenience to users in their shopping and engagement activities.

In terms of system platforms, RRSS currently operates on web-based platforms, with potential future expansion to mobile applications. Future considerations may include the development of native mobile apps to cater to users who prefer mobile browsing and shopping experiences.

Integration with other applications, such as payment gateways, CRM systems, and social media platforms, may be necessary for RRSS. This integration enhances user experience and functionality, enabling seamless transactions, customer interactions, and social sharing capabilities within the platform.

Overall, the user environment for RRSS is diverse and dynamic, catering to users' varied needs and preferences in online shopping, product research, and community engagement activities.

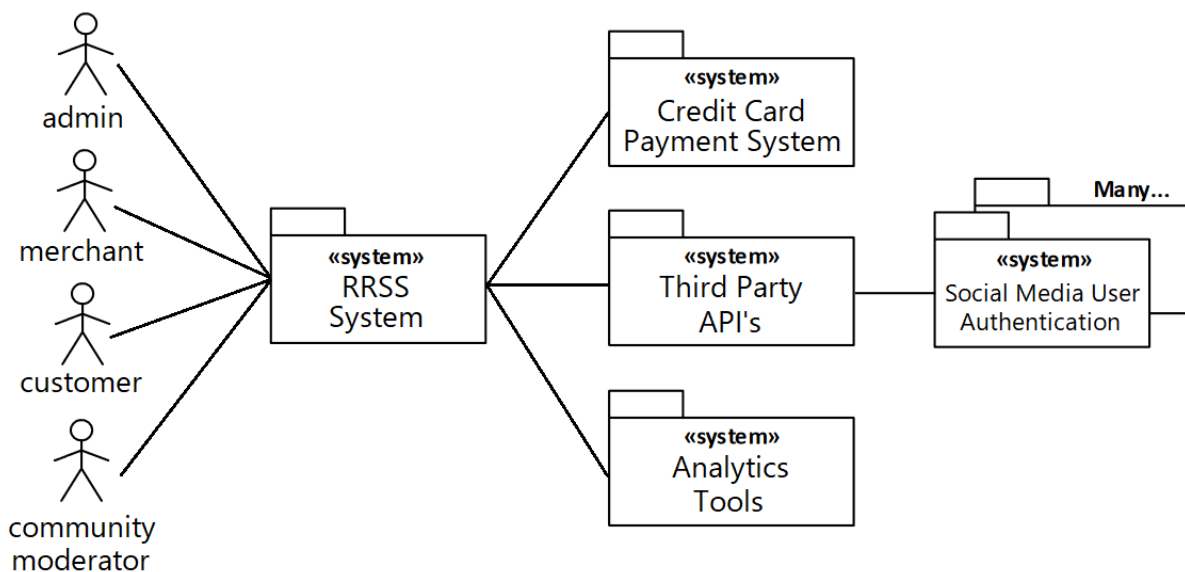


Figure: Context Diagram for RRSS

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## 4. Product Overview

### 4.1 Needs and Features

Need	Priority	Features	Planned Release
User Session Management	1 <sup>st</sup> (High)	User registration and login, secure password management	12.04.2024
Product Management	2 <sup>nd</sup> (High)	Ability to add, edit, and delete products, product categorization for easy navigation, inventory management to track stock levels and availability	19.04.2024
User Profile Management	3 <sup>rd</sup> (Medium)	Updating personal information, changing password, user session tracking and logging	19.04.2024
Product Review and Rating	4 <sup>th</sup> (High)	Submitting reviews and ratings for products, reply functionality for merchants to respond to user reviews	10.05.2024
Shopping Module	5 <sup>th</sup> (Medium)	Order management, stock management, payment methods, tracking of shipment	10.05.2024
Product Recommendation Module	6 <sup>th</sup> (Medium)	Personalized product recommendations based on user behavior and preferences, frequently bought together or recently viewed products suggestions	24.05.2024
Community Engagement Module	7 <sup>th</sup> (Low)	Discussion forums for users to post topics and participate in discussions, commenting system for users to interact with posts and provide feedback, user-generated content submission, private messaging system for direct communication between users, reporting and moderation tools for managing inappropriate behavior	24.05.2024

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## 5. Other Product Requirements

Requirement	Priority	Planned Release
Simple User Interface on Web	1 <sup>st</sup> (High)	19.04.2024
Java Spring API Hosted On Local Server	2 <sup>nd</sup> (High)	19.04.2024
Database Server Located On Local Server	3 <sup>rd</sup> (High)	19.04.2024
Security of API Endpoints	4 <sup>th</sup> (Low)	24.05.2024
Meeting Google Core Web Vitals Standards *	5 <sup>th</sup> (Medium)	24.05.2024
Compliance with Industry Standards	6 <sup>th</sup> (Medium)	24.05.2024
Support For Mobile Devices (Responsive Web Design)	7 <sup>th</sup> (Low)	24.05.2024
Creation of Comprehensive Online Help Guidelines	8 <sup>th</sup> (Medium)	24.05.2024

Note (\*): Core Web Vitals are key performance metrics that measure the user experience of web pages. For instance, the page loading time should be less than 2.5 seconds (LCP - Largest Contentful Paint). Additionally, the time it takes for the page to become interactive (FID - First Input Delay) should be less than 100 milliseconds, and the visual stability of the page between content changes (CLS - Cumulative Layout Shift) should be less than 0.1. Meeting these criteria ensures users experience a fast, interactive, and stable web browsing experience.