AQUASPACE

CS48

Meet the Team

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- Advisor : Dr. A. R. Weerasinghe

- Supervisor : Ms. Gayani Rupasinghe
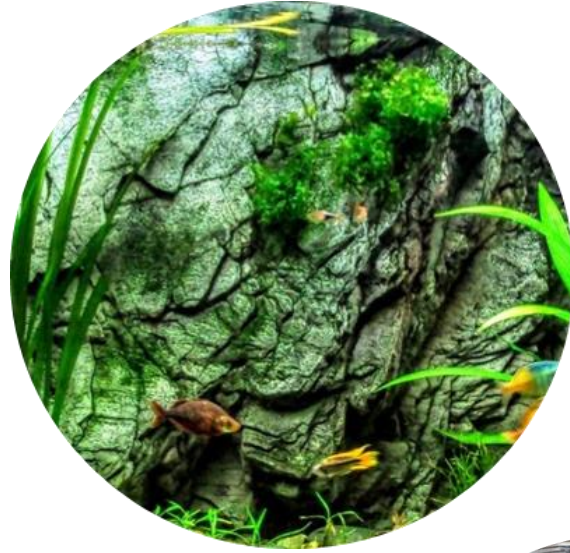
- Co-Supervisor : Ms. M. M. A. Devindi

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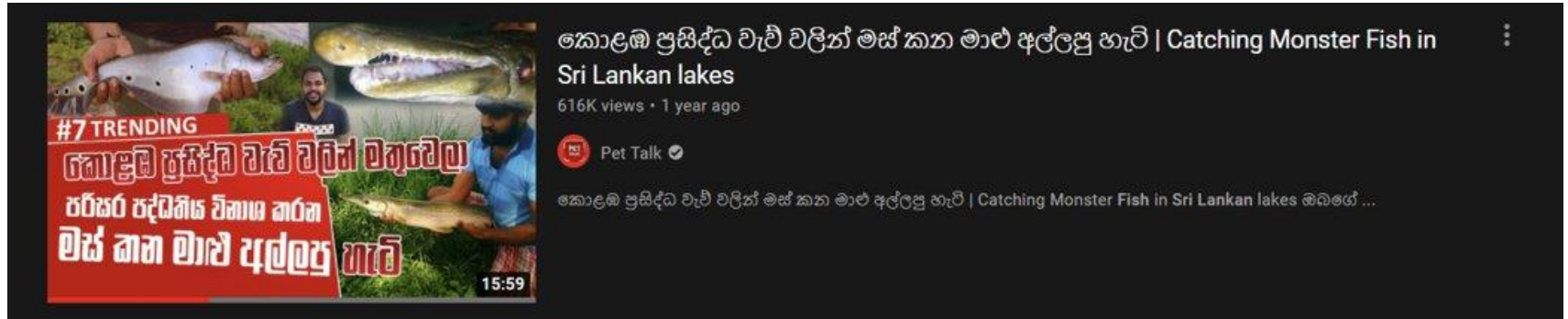
The Problem

It's easy
to raise
a fish

... **isn't it?**

In Sri Lanka, the hunt is on for alien fish in native lakes

New assessment shows 74% of Sri Lanka's freshwater fish threatened with extinction

by Malaka Rodrigo on 31 July 2020

f 🐦 in ☺ ✉ 🔖

කොළඹ ප්‍රසිද්ධ වැව් වලින් මස් කන මාළු අල්ලපු හැටි | Catching Monster Fish in Sri Lankan lakes

616K views · 1 year ago

Pet Talk ✓

කොළඹ ප්‍රසිද්ධ වැව් වලින් මස් කන මාළු අල්ලපු හැටි | Catching Monster Fish in Sri Lankan lakes ඔබගේ ...

Survey results

353

Responses

Survey Results

Which of the following features will be most useful for you

59 responses

Feature	Count
To be able to offer fish up for adoption	30 (50.8%)
To be able to find people near you who are putting their fish up for adoption	34 (57.6%)
To be able to get advice from a vet from a website	38 (64.4%)
To be able to locate aquarium supply stores near you	34 (57.6%)
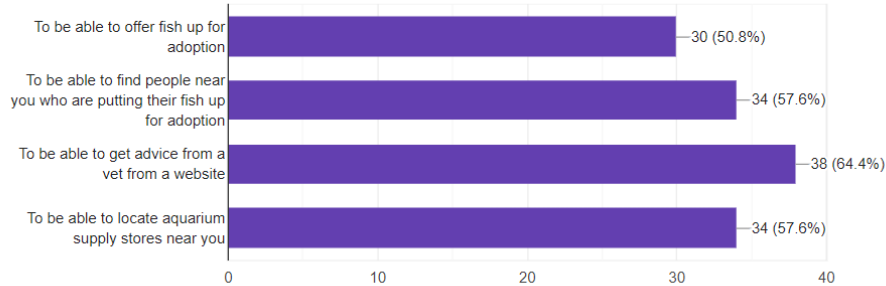
ඔබට වඩාත්ම ප්‍රයෝජනවත් වන්නේ පහත සඳහන් කුමන අංගයන් ද?

294 responses

| අංගය	ගණන
ඔබගේ මත්ස්‍යයන් රැකබලා ගැනීමට නොහැකි අවස්ථාවක රැකබලා ගැනීමට ලබා දීමේ...	123 (41.8%)
ඔබ අසල මත්ස්‍යයන් රැකබලා ගැනීමට දීමට කැමති පුද්ගලයන් පහසුවෙන් සොයා ගැනීමේ...	141 (48%)
මත්ස්‍ය විශේෂඥයකුගෙන් වෙබ් අඩවිය මාර්ගයෙන් උපදෙස් ලබා ගැනීමේ සේවාව	201 (68.4%)
ඔබ අසල තිබෙන මත්ස්‍ය උපකරණ වෙළඳසැල් (aquarium shops) ගැන දැන ගැනීමේ සේ...	119 (40.5%)
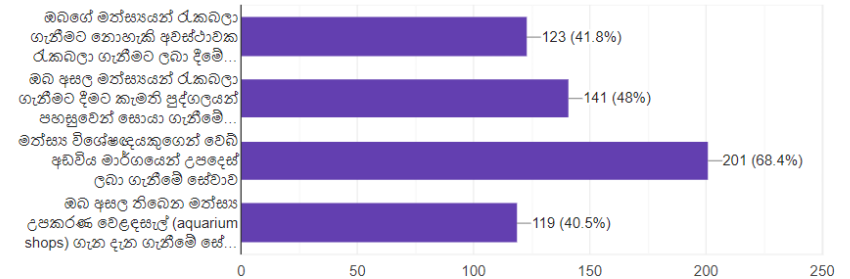
If you are a fish owner, and in the case you can no longer look after your fish, would you be willing to put them up for adoption?
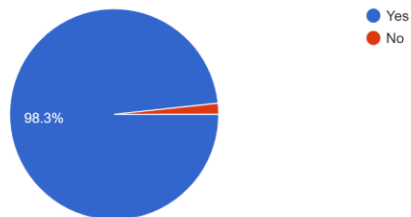
59 responses

- Yes
- No

13.6%

86.4%
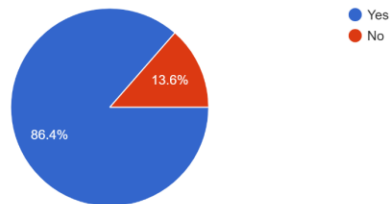
If you are looking to acquire a fish, would you be willing to adopt instead of buy?

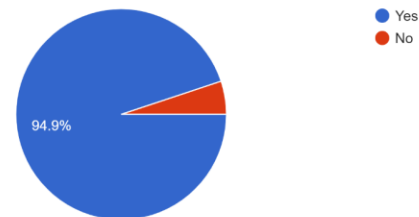59 responses

- Yes
- No

10.2%

89.8%
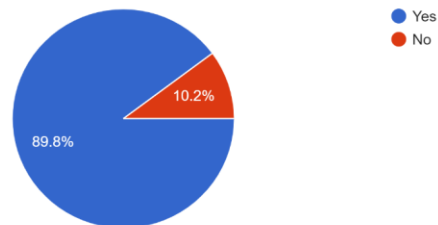
Do you think it would be useful for you to be able to locate stores that offer aquarium supplies near you?

59 responses

- Yes
- No

98.3%

Do you think it would be useful if you can locate people near you who are offering their fish up for adoption?

59 responses

- Yes
- No

94.9%

The problems

- The community of fish enthusiasts has been spread across several platforms
- Marketplaces do not provide information needed to make the correct decision
- Lack of a centralized information center for basic care instructions
- Abandonment is the easier option when you can't raise a fish
- Adoption is not popular/ not known
- Lack of awareness on cleaning up invasive species

Project Description

Goal

To provide the community of fish enthusiasts and store owners with a platform that allows them to **connect** with each other easily and to provide the community a place to **share** information to save time and money.

Objectives

Connect with other fish enthusiasts near you to sell fish and equipment

A central knowledge base on basic care instructions

Encourage adoption

Encourage the community to clean up invasive species

Existing Systems

Marketplaces

Social Media

	Ikman.lk	Facebook	AquaSpace
Advertise Fish and Aquatic equipment	✓		✓
Find sellers/ buyers based on location	✓		✓
Care Information on fish and plants		✓	✓
Free prioritized posts for adoption			✓
Rate articles		✓	✓
Review stores	✓		✓
Find community events to clean up invasive species		✓	✓

Scope

In Scope

- A web application
- Users can advertise fish and equipment
- Users can view and rate articles
- Users can view events
- Review stores
- Rate articles
- Payment for creating a post will be done through a sandbox

Scope

Constraints

- No frameworks
- Truthfulness cannot be guaranteed
- Payment for goods will not be handled
- Inquiry cannot be done without registering

Assumptions

- All users will have internet
- All users will have basic English skills
- Users will enter valid details
- Users will constantly check for inquiries

Deliverables

- A Web based application
- User Manual

Requirements

User Identification

01 — Guest User

02 — Registered User

03 — Store Owner

04 — Moderator

05 — Admin

Functional Requirements

01 — Guest User

- View and Search posts
- View and Search articles
- Register
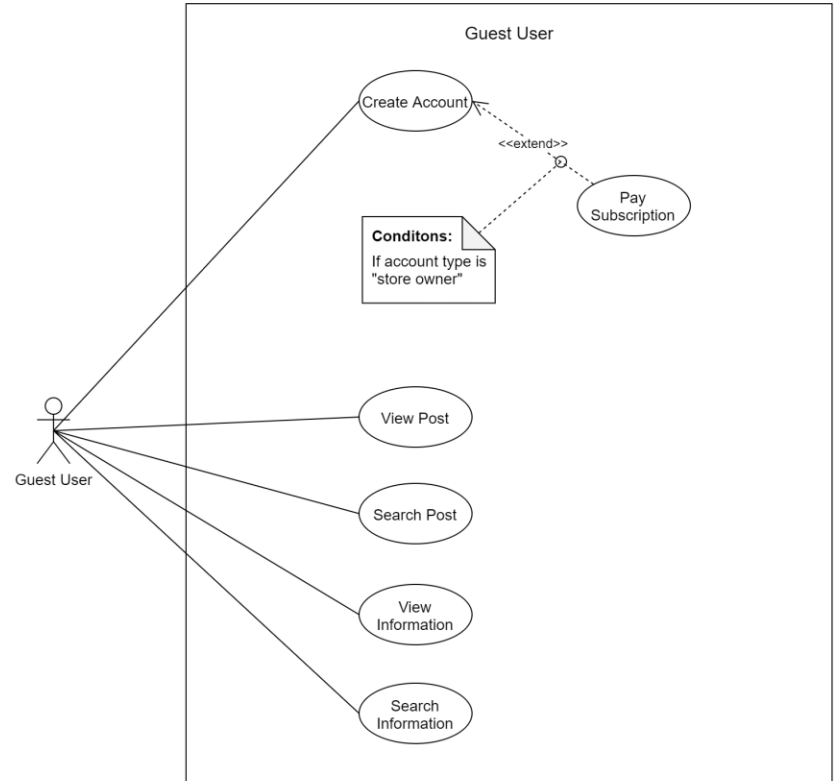
Functional Requirements

02 ——— Registered User

- Add posts
- View and Update profile
- View active posts
- Send and receive Inquiries
- Rate articles
- Review Stores
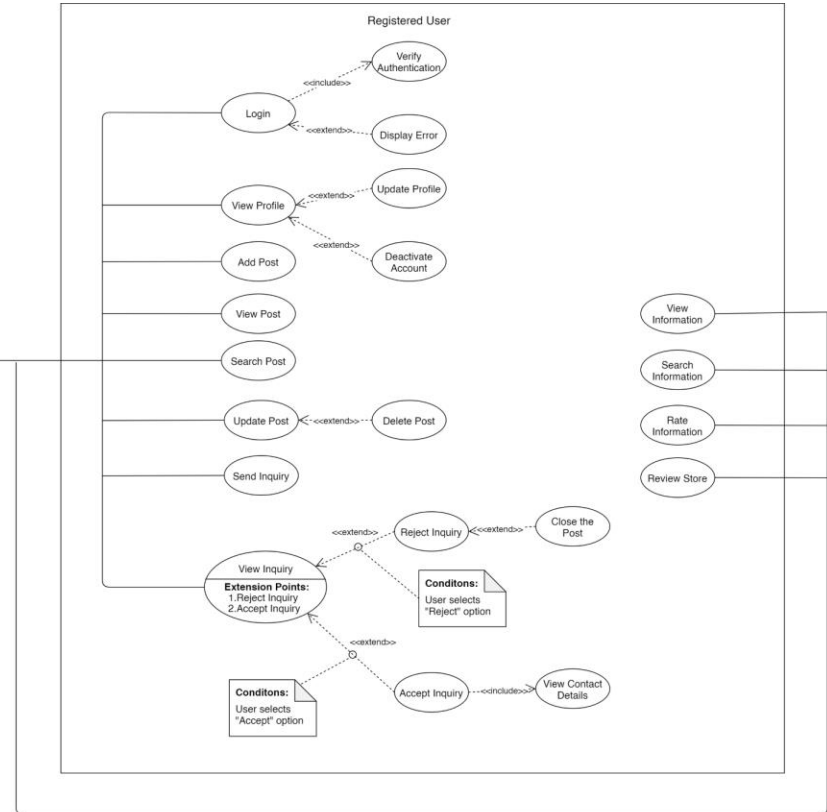
Functional Requirements

03 ——— Store Owner

- Add posts
- View and update profile
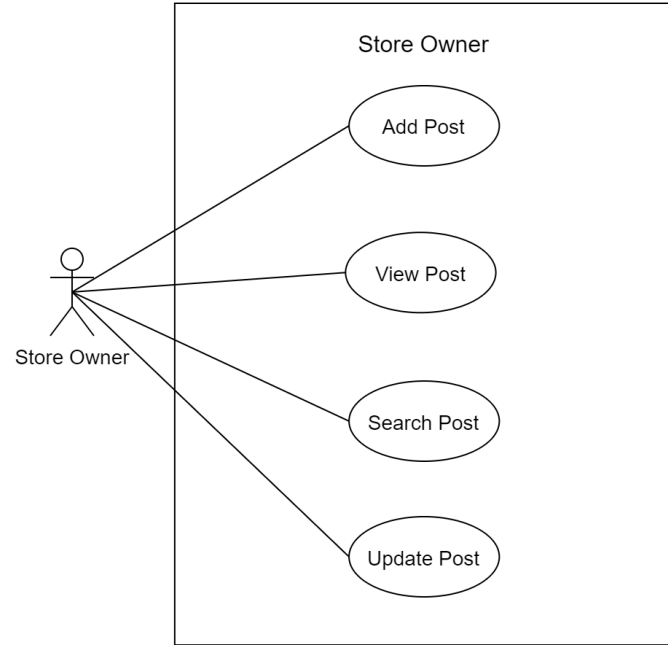
Functional Requirements

04 ——— Moderator

- Add articles
- Update and delete articles
- Add events
- Update and delete events
- Remove posts
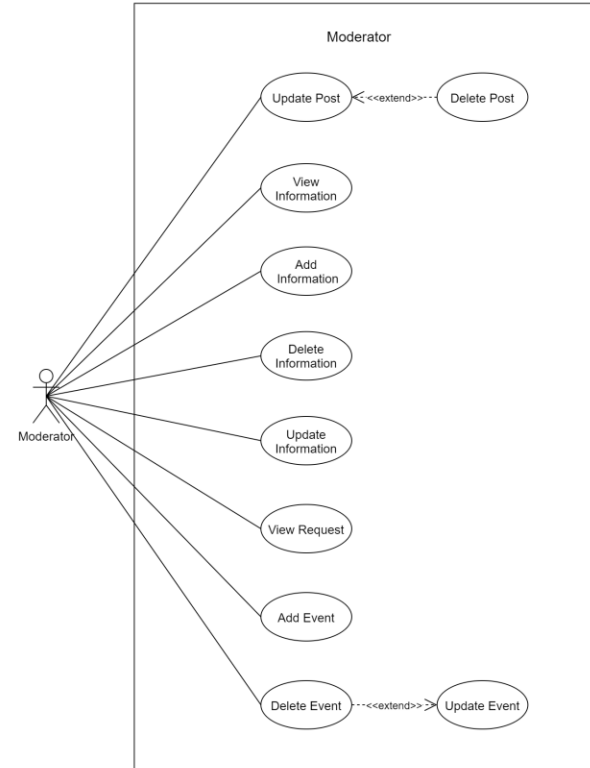
Functional Requirements

05 — Admin

- Upgrader user account to moderator
- Downgrade moderator account
- View moderator contribution
- Remove an account
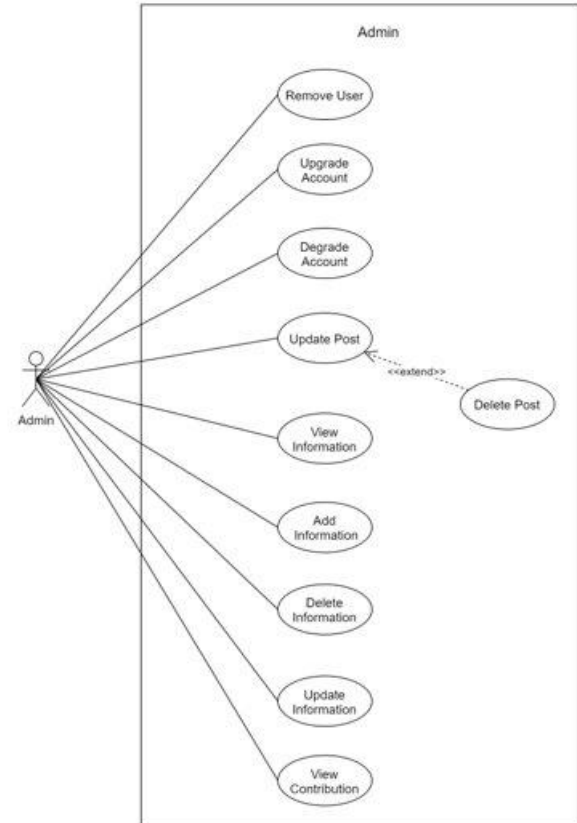
High Level System Architecture
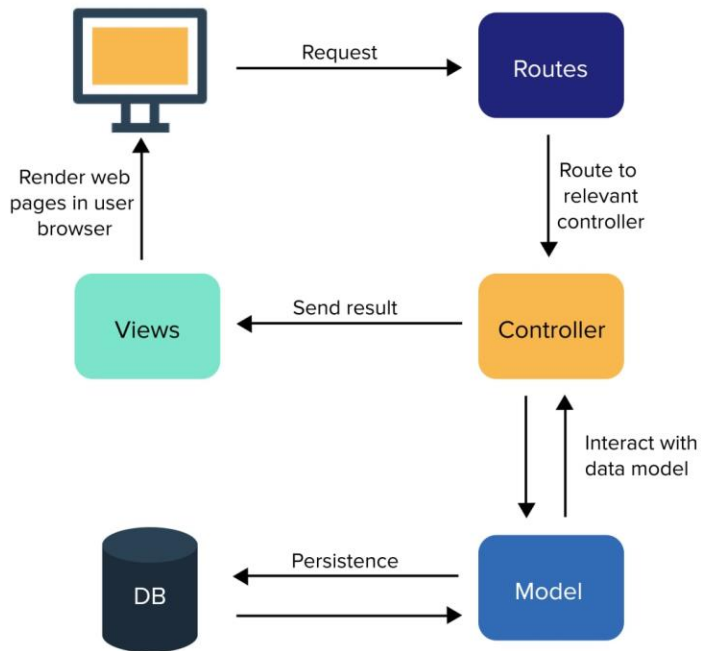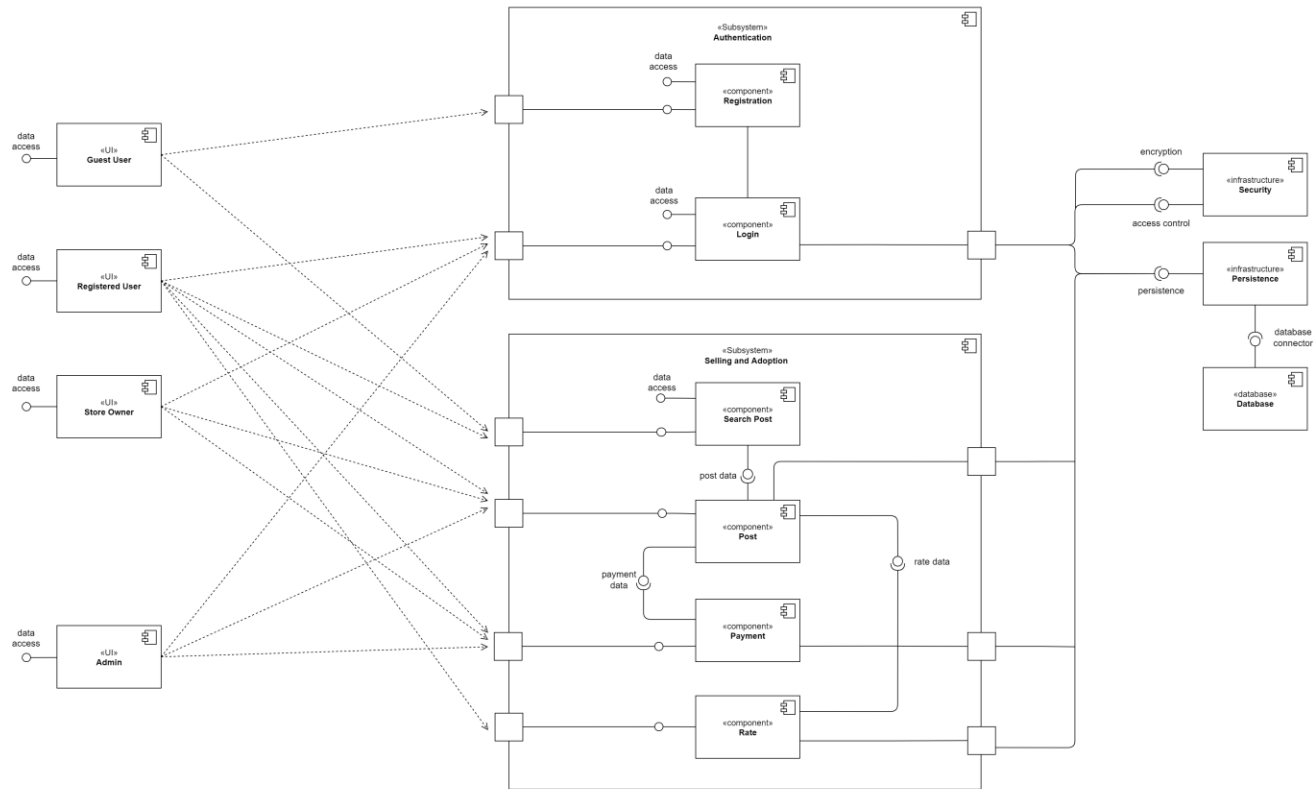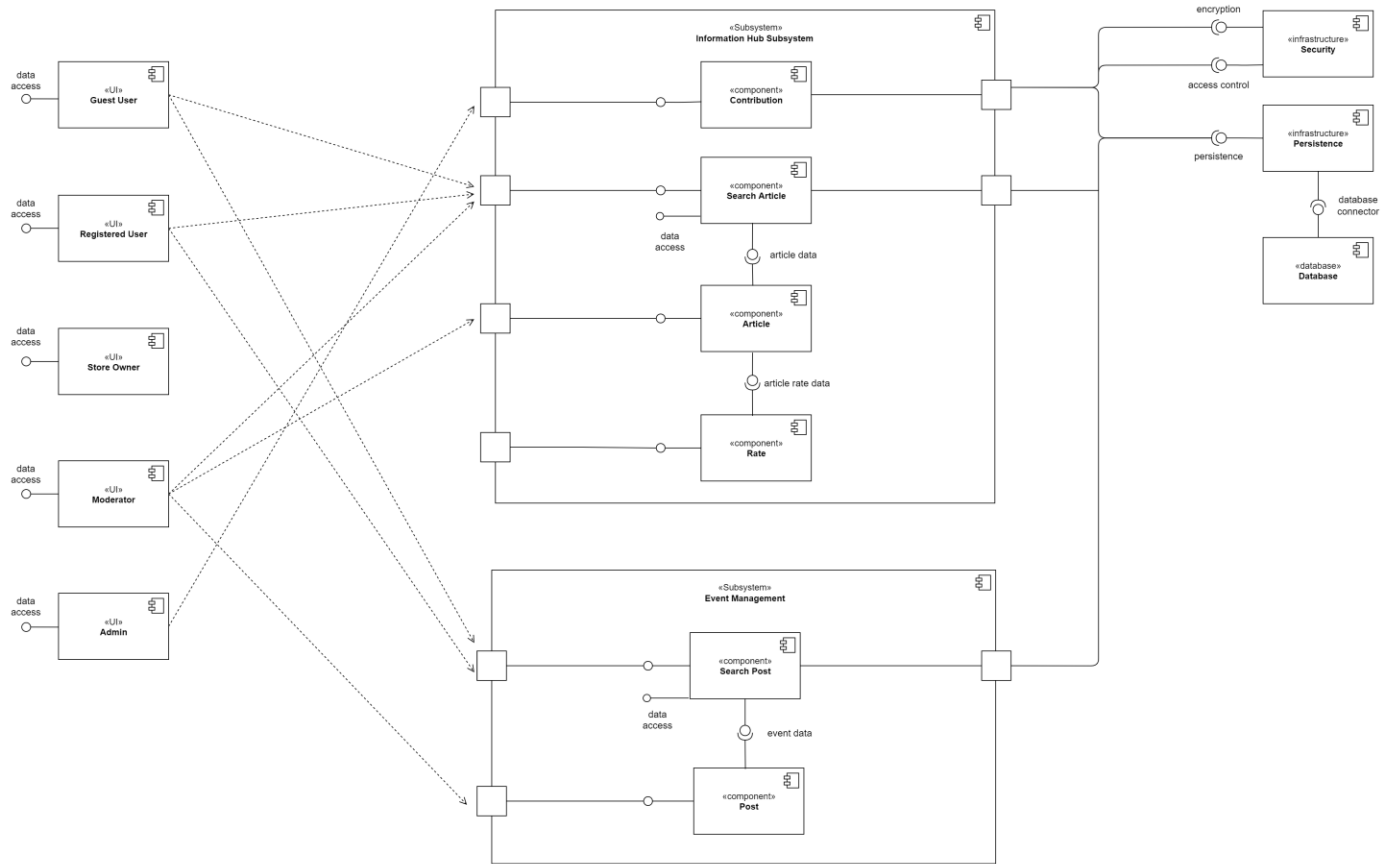
Quality Attributes

- **Usability**

  Simple, responsive user interface

- **Availability**

  Maintain good back-ups

- **Security**

  User access levels

  Login authentication

Quality Attributes

- **Performance**

  Good hosting service

- **Portability**

  Use of standard programming languages

  Hardware compatibility

- **Maintainability**

  Good documentation

  Coding standards

  Modular design

Feasibility

01 Operational Feasibility

- Survey conducted received majority positive answers
- Buy and sell fish and related equipment
- Adoption system
- Information hub
- Event requests

The project is **operationally feasible**

Feasibility

02 Technical Feasibility

- Software and hardware needed for implementation are freely available

- Technical skills required are within the capabilities of the team

The project is **technically feasible**

Feasibility

03 Economic Feasibility

- Cost for hosting

  - Free for the first year

- Cost for payment sandbox

- No cost for software and hardware

The project is **economically feasible**

Feasibility

04 Legal and ethical Feasibility

- Sensitive data will not be revealed to third parties

- Different access levels

- Misuse will not be tolerated

The project is **legally and ethically easible**

Feasibility

05 Schedule Feasibility

Waterfall methodology will be used

4 members * 7 hours per week = 28 hours per week
42 Weeks * 28 hours/week

1176 hours

	Phases of Waterfall Method	May		June				July				August				September				October				November				December				January				February				March			
		w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4
Requirement Analysis	Selection of Project	■																																									
	Requirement Gathering		■	■																																							
	Requirement Analysis				■																																						
	Scope Identification																																										
	Feasibility Study																																										
	Use Case, Activity, Component Diagrams					■	■	■																																			
	Documentation of Proposal																																										
System Design	UI Design								■	■																																	
	ER Modeling										■	■																															
	Documentation of SRS												■																														
Implementation	Implementation													■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■												
Testing	Unit Testing																															■	■										
	Integrated Testing																																	■	■								
	System Testing																																				■	■					
	Acceptance Testing																																						■	■			
Deployment	Deployment																																									■	■

Technologies

Front End

Back End

Modules

Collaboration

Version Control

Work
Distribution

According to user roles

Inuri Gunasekara	Kalsha Samarajeewa	Dilshan Sankalpa	Rashmika Lakshan
• Admin • Registered User	• Moderator • Registered User	• Guest User • Registered User	• Store-owner • Registered User

Github Org Project Board

Q & A