

Fish Tank Monitoring System - Work In Progress

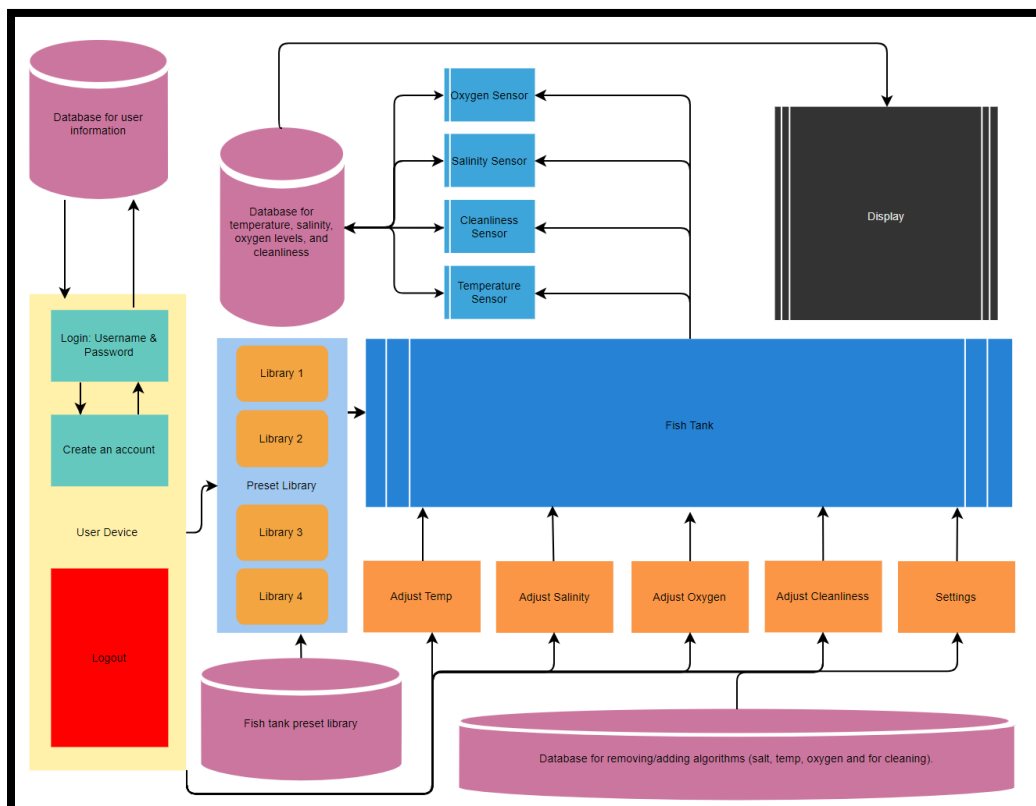
Software Design Specification Document

Development Team:	Role:	Contact:
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System Overview

- (insert an overview of the system we are going to build here!)

Software Architecture Overview

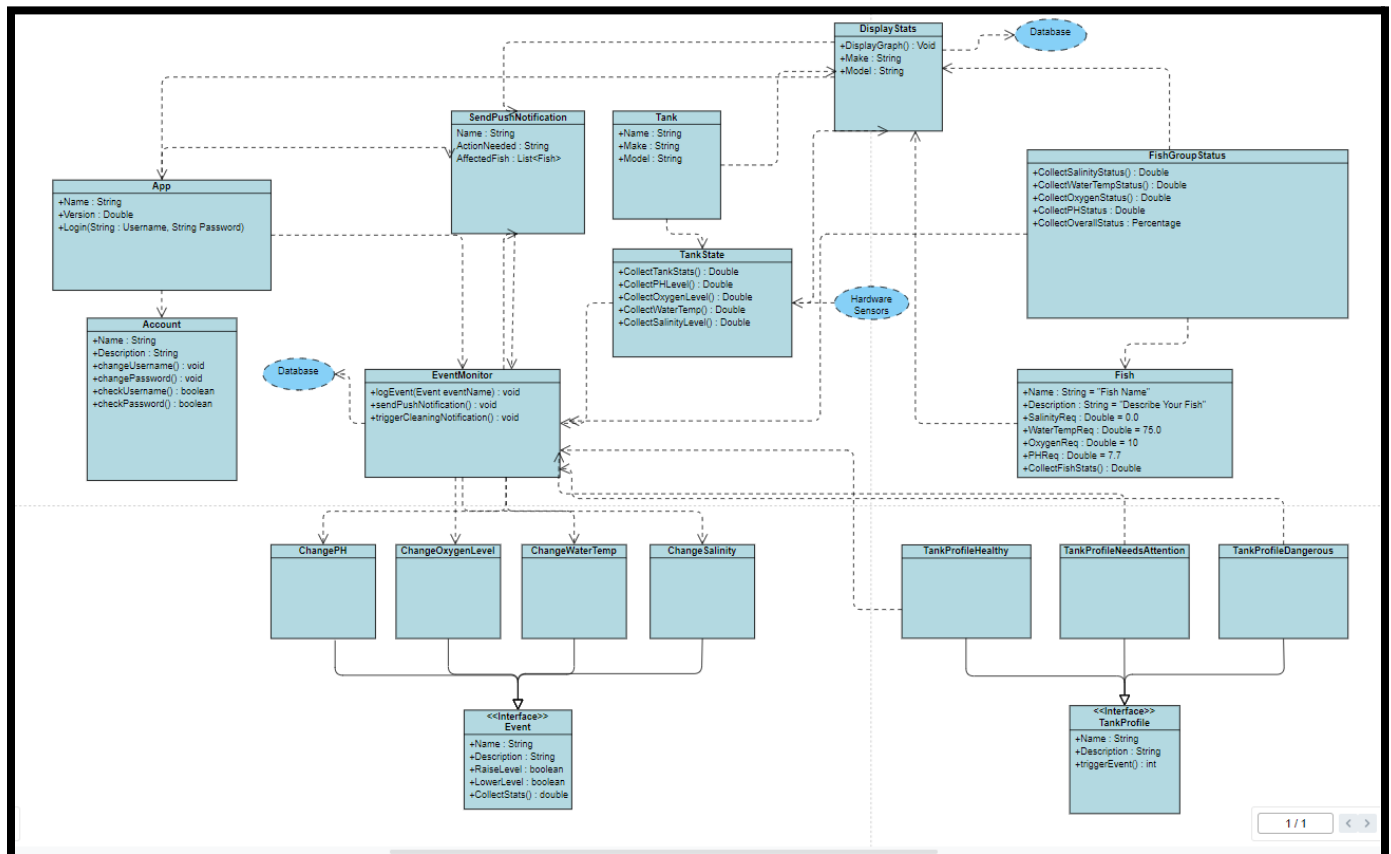


Pictured: Architectural Overview of the Fish Tank Monitoring System

Description of the software architecture diagram

- Jose had SWA description here

UML Class Diagram



Description of classes

EventMonitor	+NotifyUser - Creates a user push notification +LogEvent - Logs an event attempt in the database
<<interface>> Event	+Name +Description +RaiseLevel +LowerLevel
ChangeSalinity	Implements Event Interface

ChangeWaterTemp	Implements Event Interface
ChangeOxygenLevel	Implements Event Interface
ChangePH	Implements Event Interface
TankState	+CollectTankStats
FishGroupStatus	<p>+CollectSalinityStatus - Check to see whether the salinity of the tank matches overall fish needs.</p> <p>+CollectWaterTempStatus - Check to see whether the water temperature of the tank matches overall fish needs.</p> <p>+CollectOxygenStatus - Check to see whether the oxygen levels of the tank matches overall fish needs.</p> <p>+CollectPHStatus - Check to see whether the PH level of the tank matches overall fish needs.</p> <p>+CollectOverallStatus - Collects all statuses and creates an average for the statuses of all the fish.</p>
Fish	<p>+Name</p> <p>+Description</p> <p>+SalinityReq</p> <p>+WaterTempReq</p> <p>+OxygenReq</p> <p>+PHReq</p> <p>+CollectFishStats</p>
<<interface>> Tank Profile	<p>+Name</p> <p>+Description</p> <p>+AutomaticActions</p> <p>+TriggerAction()</p>
Tank Profile - Healthy	
Tank Profile - Needs Attention	
Tank Profile - Dangerous	
Tank	<p>+Name</p> <p>+Description</p>
Account	<p>+Name</p> <p>+Description</p> <p>+Username</p> <p>+Password</p>

	+ChangeUsername +ChangePassword
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System Description

- Brief overview of system
 - Fish tank monitoring system to help owners better manage the wellbeing of their fish.
 - Capabilities
 - Fish Tank Monitor
 - - Push notifications to end users phone
 - - Settings to configure monitoring system (salinity, cleanliness, water temperature, oxygen levels)
 - - Hardware sensors to take in data
 - - Display/graph for the data
 - - Fish tracking, catalog
 - - Fish tank chemical auto balancing

ATM Fish Diagram

Software Architecture Overview

- Architectural diagram of all major components - Jose
- Description of the software architecture diagram - Jose

- UML Class Diagram - Darren
- Description of classes - Darren
- Description of attributes - Darren
- Description of operations - Darren

* descriptions should be detailed and specify datatypes, function interfaces, parameters, etc..

Development plan and timeline

- Partitioning of tasks
- Team member responsibilities

Extra Information:

[Free Use Case Diagram Tool](#)