Drink & Delight

Inventory Management System

Team Members:

Team 3	Team 4
Aakashdeep(Scrum Master)	Gaurav Gaikwad(Scrum Master)
Masharib Hussain	Kaushik Eezkeil Kachhap
Ashmita Das	Diksha Gupta
Prathamesh Pai	Md. Nafees Zakee
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4. Epic & Stories

Epic	Stories	As a/an	I want to	So that
Authentication System	Login	User	Enter my correct credentials and login	I will successfully login to the system
		User	Enter my incorrect credentials and login	I will not be able to successfully login to the system
	Forgot Password	User	Change my password if I have forgotten my password	I can successfully change my password to a new one
	Logout	User	Come out of my system	I will be successfully be able to logout of the system
Track Raw Material Order	Track Order	User	Enter Order Id of Raw material	I get all the details about that particular order Id
Update Raw Material Stock	Set Process Date	User	Enter RM Order Id and process date for that Id	Process date is inserted in database and data inserted message is shown
	Update Manufacturing Date, Expiry Date & QA	User	Enter RM order Id and set Manufacturing Date, Expiry Date & QA for that Id	All details are inserted in database and data inserted message is shown

Track Product Order	Track Order	User	Enter Order Id of Product	I get all the details about that particular order Id
Update Product Stock	Set Exit Date	User	Enter Order Id of Product and exit date for that Id	Exit date is inserted in database and data inserted message is shown
	Update Manufacturing Date, Expiry Date & QA	User	Enter product Order Id and set Manufacturing Date, Expiry Date & QA for that Id	All details are inserted in database and data inserted message is shown
Update an Order	Update Delivery Status of Raw Material Order	User	Enter Raw Material Order Id and new Delivery Status	The delivery status of that Order is set and the same is reflected in the database.
	Update Delivery Status of Product Order	User	Enter Product Order Id and new Delivery Status	The delivery status of that Order is set and the same is reflected in the database.
Place an order	Place Raw Material Order	User	Enter all the details for a Raw Material Order	Raw Material Order is placed successfully.
	Place Product Order	User	Enter all the details for a Product Order	Product Order is placed successfully.
Display order details	Display Raw Material Order Details	User	Enter delivery status, supplier ID, start and end date(optional).	I get all the details of all the raw material orders placed.
	Display Product Order Details	User	Enter delivery status, distributor ID, start and end date(optional).	I get all the details of all the product orders placed.

Display Supplier Details	Display Details of Supplier	User	Enter Supplier ID	I get all the details of the specified Suppliers.
Display Distributor Details	Display Details of Distributor	User	Enter Distributor ID	I get all the details of the specified Distributors.

5. Use Cases

5.1 Authentication System

Overview

A login is a set of credentials used to authenticate a user. Most often, these consist of a username and password. However, a login may include other information, such as a PIN number, passcode, or passphrase. Some logins require a biometric identifier, such as a fingerprint or retina scan.

Logging in is usually used to enter a specific page, website or application, which trespassers cannot see. Once the user is logged in, the login token may be used to track what actions the user has taken while connected to the site. Logging out may be performed explicitly by the user taking some actions, such as entering the appropriate command, or clicking a website link labelled as such. It can also be done implicitly, such as by the user powering off his or her workstation, closing a web browser window, leaving a website, or not refreshing a webpage within a defined period.

Prerequisite

User must login as USER to perform the required functionalities for Raw material and Products for our client Drink and Delight.

Non-Functional Requirement:

➔ Performance Requirements:

User can login in < 10 seconds

All ad hoc reports should be published in < 5 seconds

Customer Order screen should be able complete submission of customer order within 3 sec including all validations on shipping address.

Customer Address List screen should not take more than 2 sec

➔ Operations and Reliability:

Up time requirement

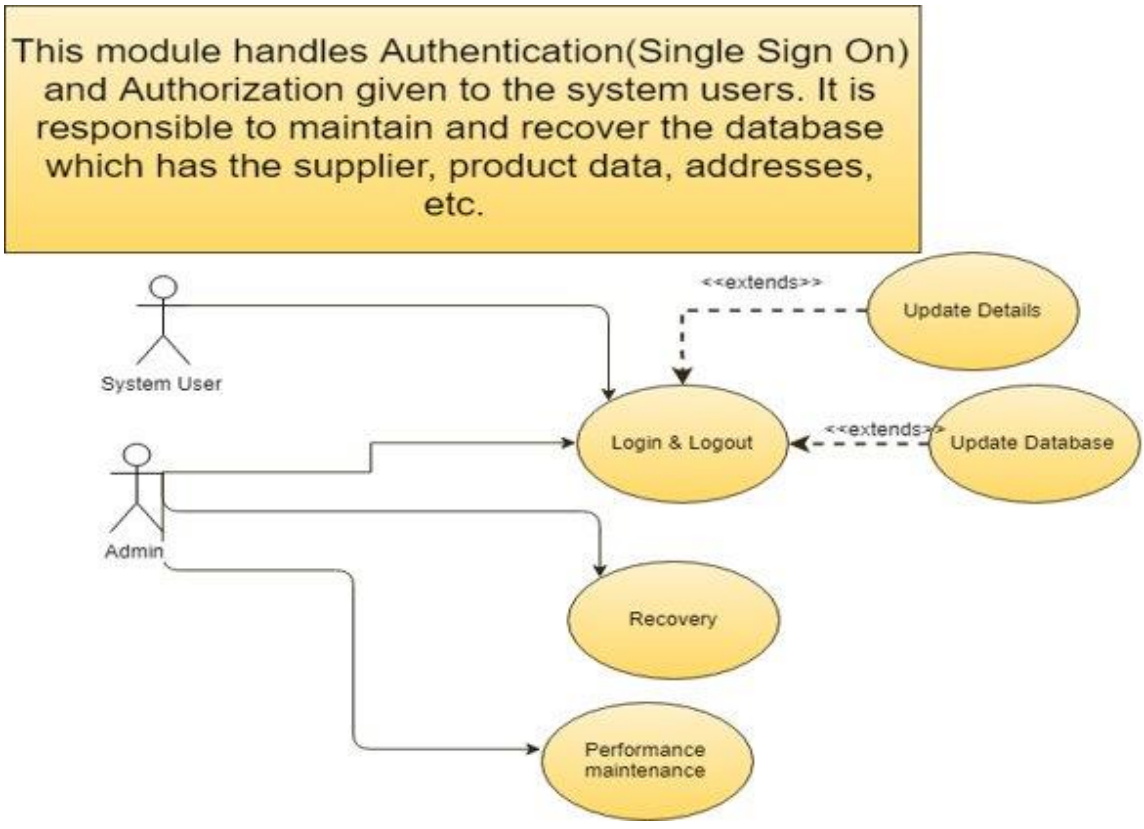
Acceptable data loss

System update

Designed and Implemented By:

Akash Deep
(Id: 46001763)
Designation: Senior Analyst

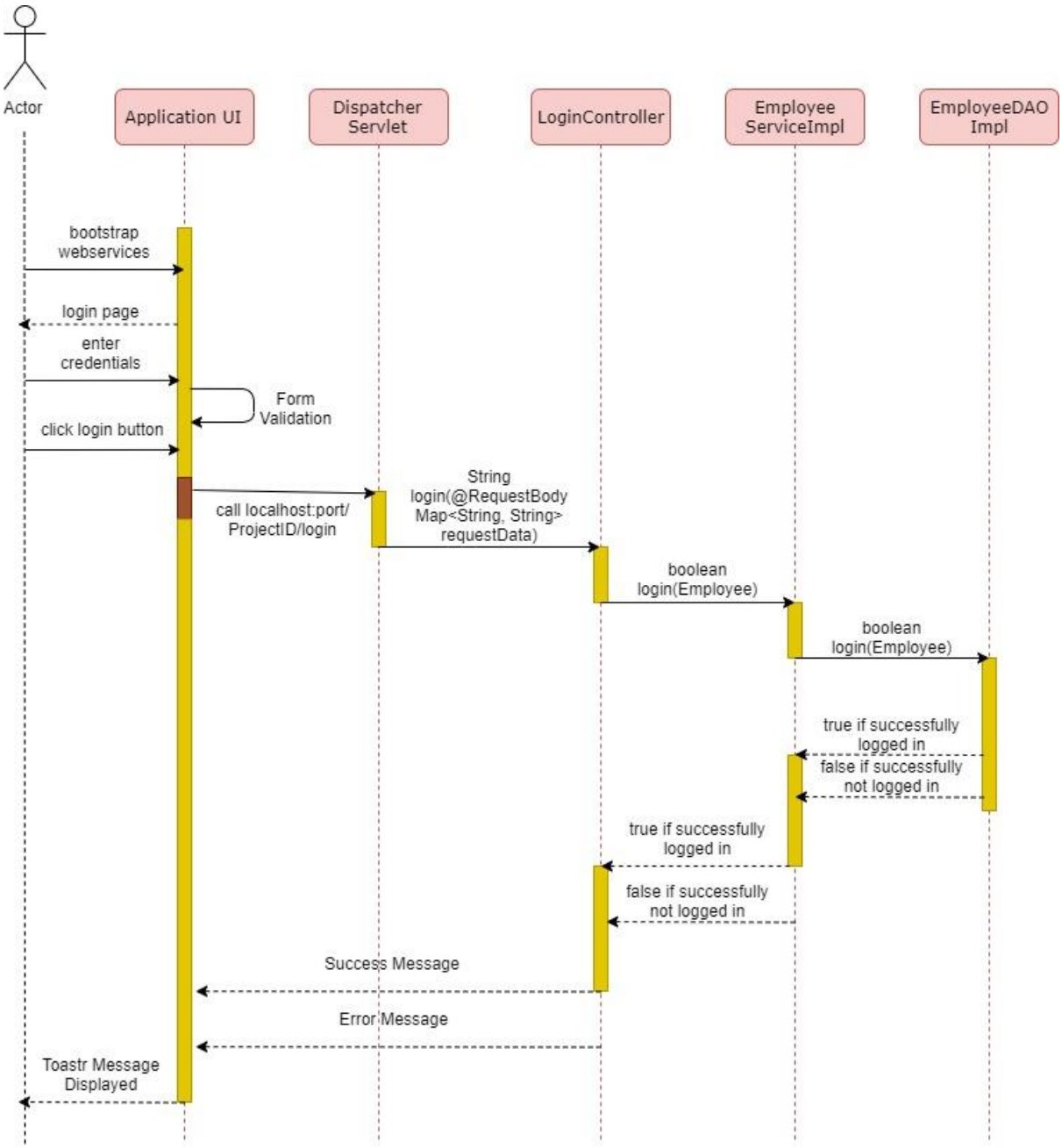
Use Case Diagram for Authentication



a) Login

This module has been designed to login into the database. This can be only accessed by employee with correct credentials.

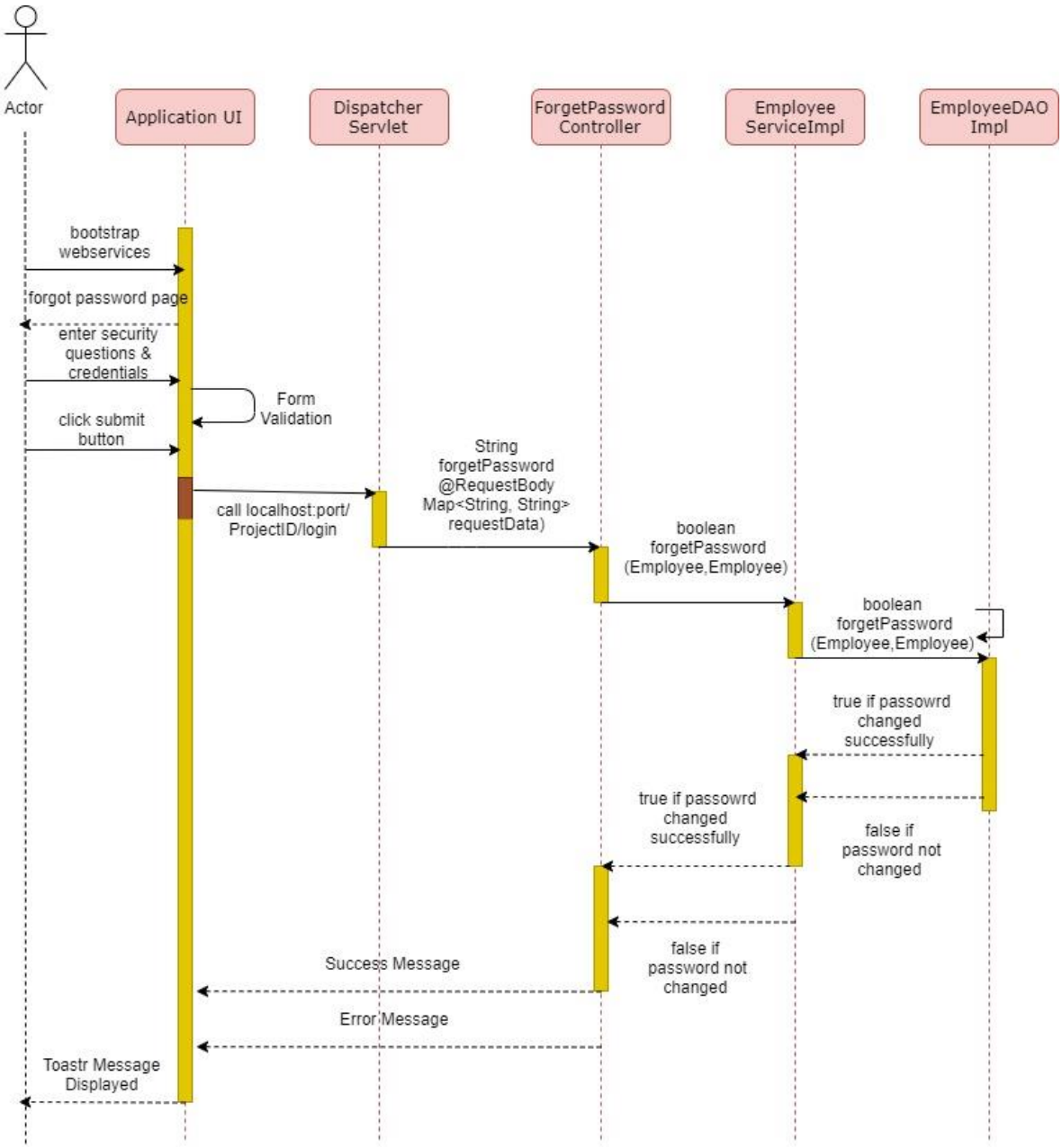
Sequence Diagram for Login



b) ForgetPassword

If the user logins into the system with incorrect credentials then he/she needs to change password the we have a functionality which you can see in the code where we can change the password manually, by giving some security questions and answers that will be specific for each user in order to change their password.

Sequence Diagram for changing the password

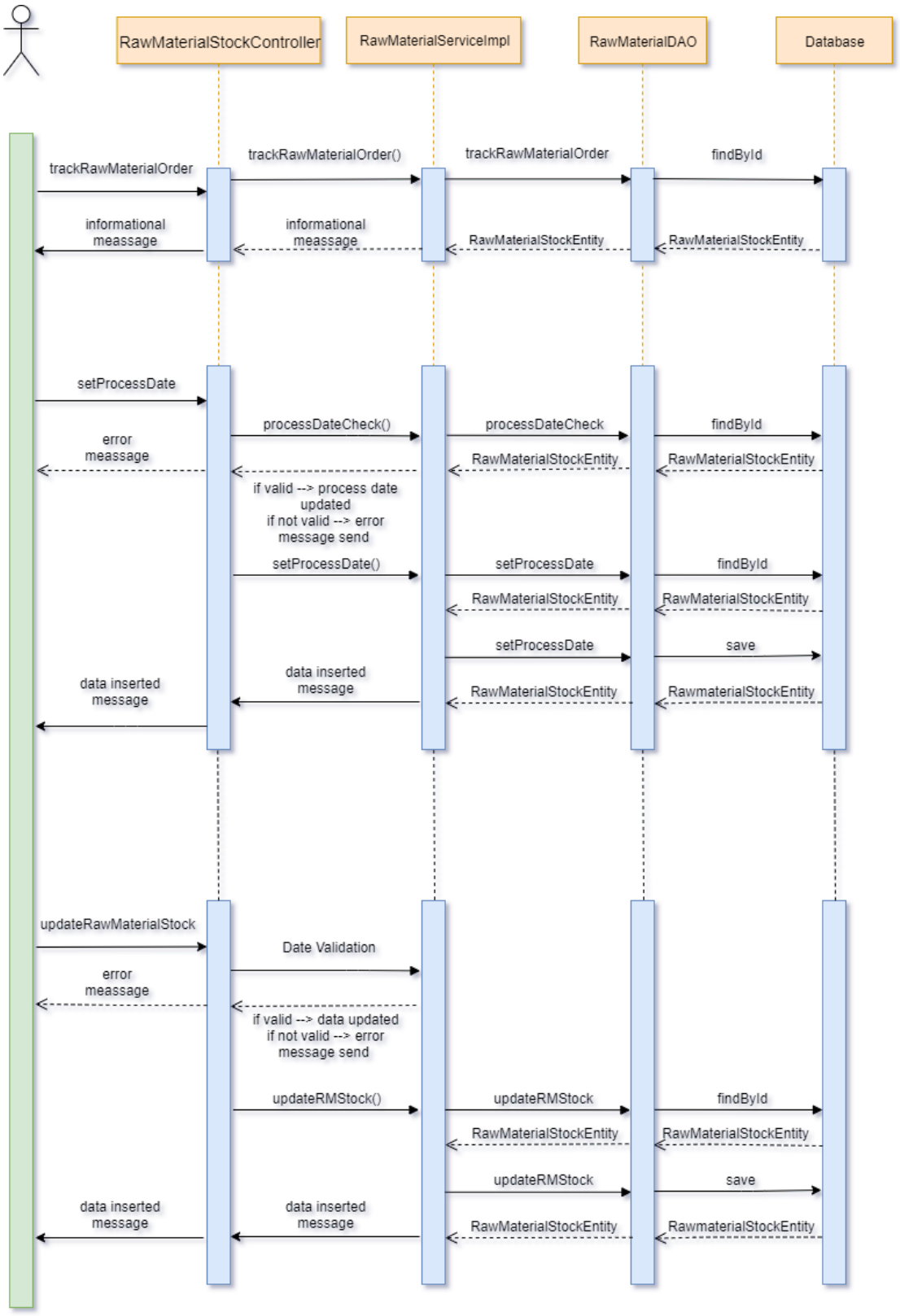


c) Logout

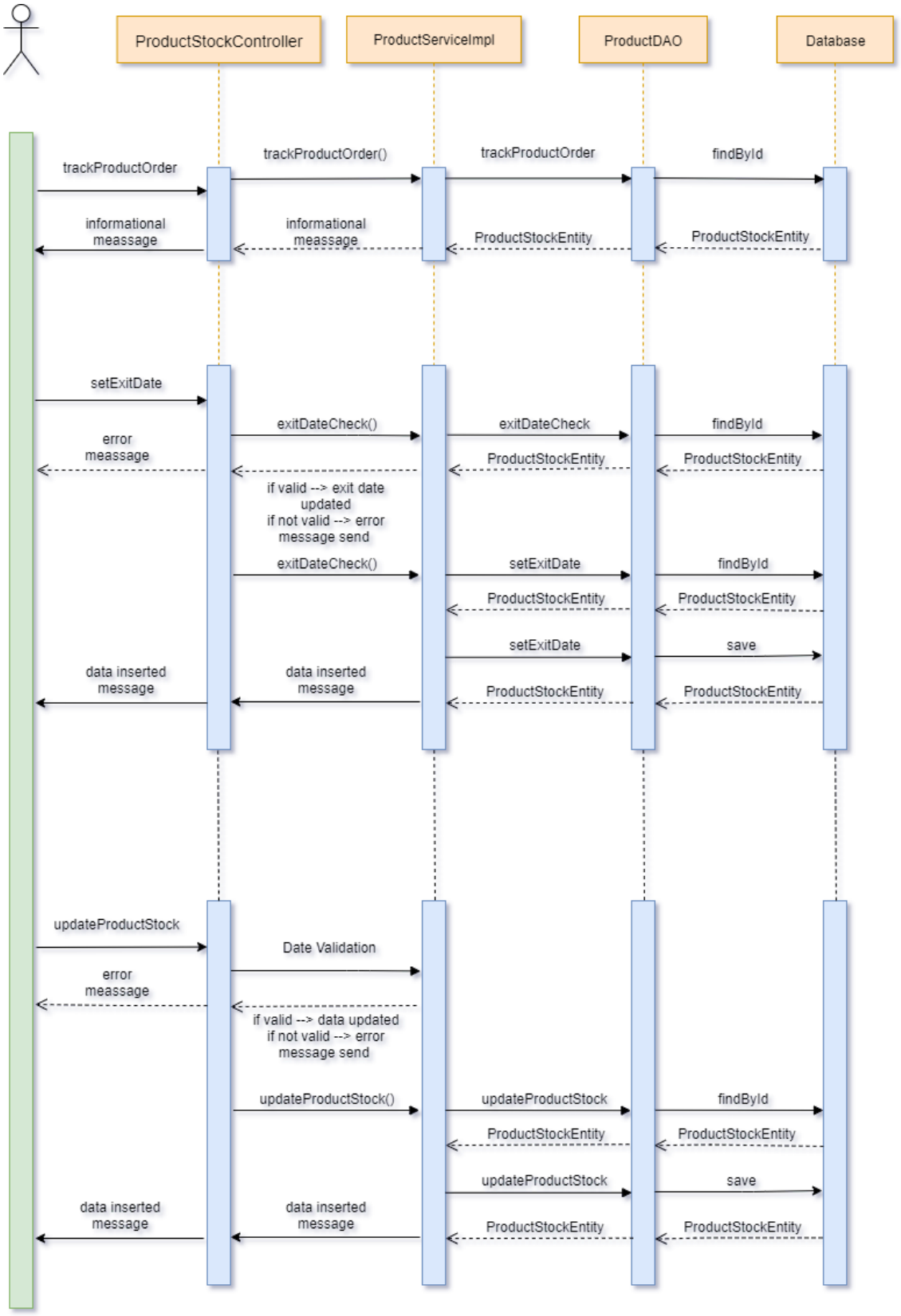
User here can simply logout from the UI as you can see the frontend code part where by using angular we can directly logout.

So, no sequence diagram is required for it.

Sequence Diagram for Track Raw Material Order and Update Raw Material Stock


RawMaterialStockController
RawMaterialServiceImpl
RawMaterialDAO
Database
trackRawMaterialOrder
trackRawMaterialOrder()
trackRawMaterialOrder
findById
informational meassage
informational meassage
RawMaterialStockEntity
RawMaterialStockEntity
setProcessDate
processDateCheck()
processDateCheck
findById
error meassage
RawMaterialStockEntity
RawMaterialStockEntity
if valid --> process date updated
if not valid --> error message send
setProcessDate()
setProcessDate
findById
RawMaterialStockEntity
RawMaterialStockEntity
setProcessDate
save
data inserted message
data inserted message
RawMaterialStockEntity
RawmaterialStockEntity
updateRawMaterialStock
Date Validation
error meassage
if valid --> data updated
if not valid --> error message send
updateRMStock()
updateRMStock
findById
RawMaterialStockEntity
RawMaterialStockEntity
updateRMStock
save
data inserted message
data inserted message
RawMaterialStockEntity
RawmaterialStockEntity

Sequence Diagram for Track Product Order and Update Product Stock



5.2 Raw Material/ Product Order Management

Overview

The life cycle of a Raw material/ Product Order is handled in this case. This includes placing an order, updating the order (if necessary) and displaying the order. The management of supplier and distributor details is also considered.

Prerequisite

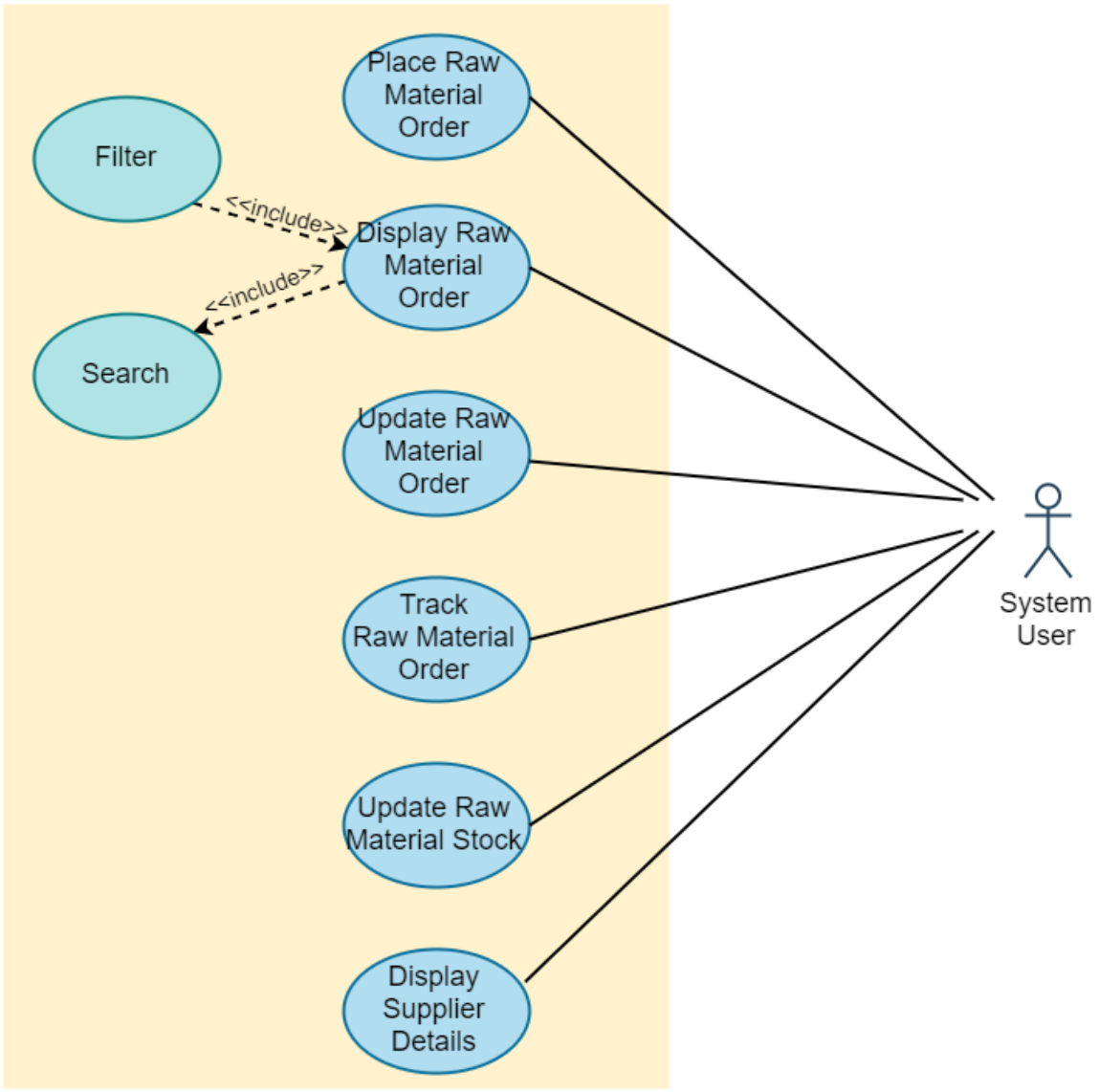
User must as USER should be able to perform the required functionalities of Order Management for Raw material and Products for our client Drink and Delight.

Designed and Implemented By:

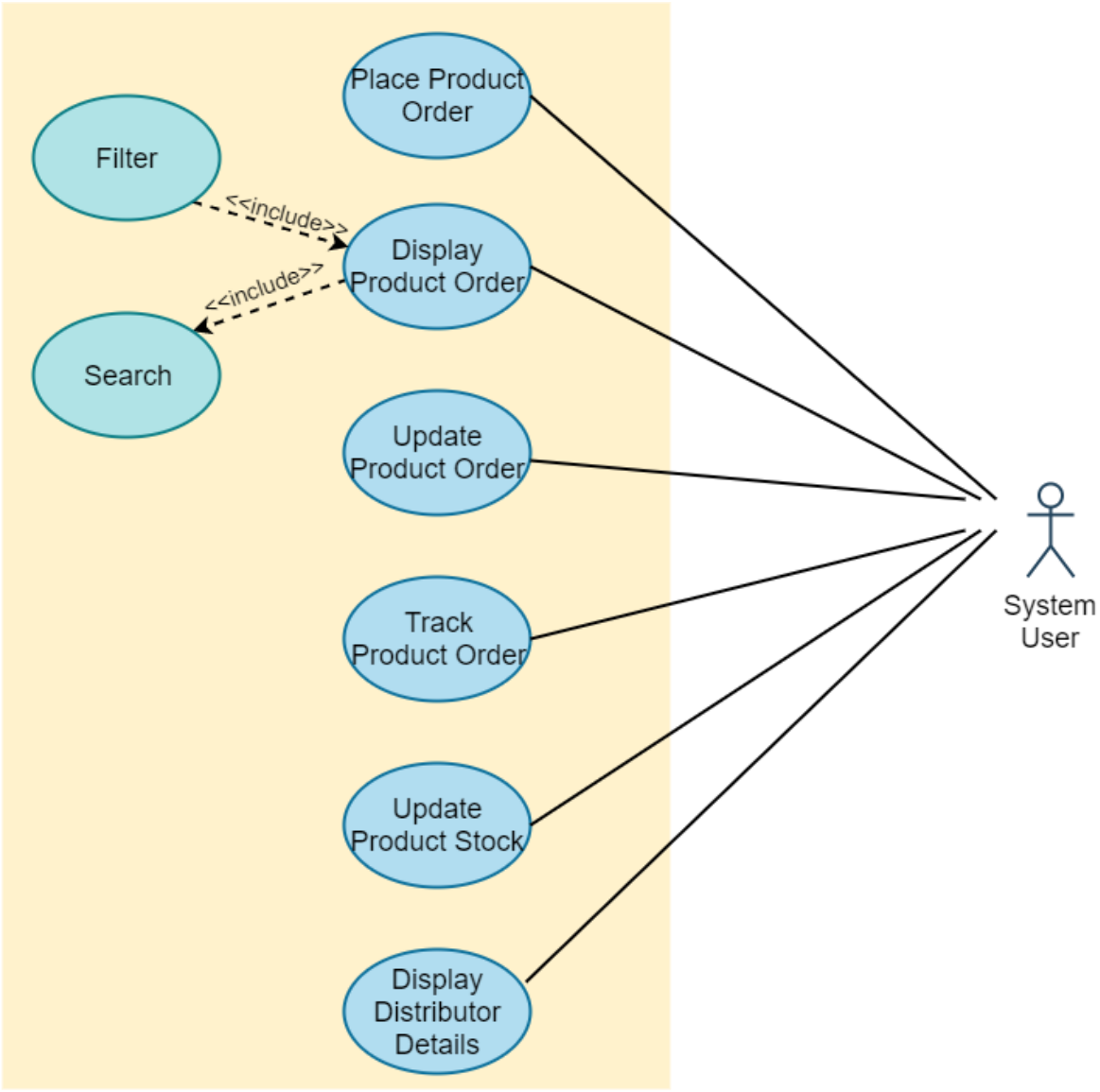
Prathamesh Pai
Akhil Moluguri
Masharib Hussain
Ankit Kumar
Ashwani Pandey
Ashmita Das

(Id: 46001536)
Designation: Senior Analyst

Use Case Diagram for Raw Material Orders/Stocks



Use Case Diagram for Product Orders/Stocks



a) Place an Order

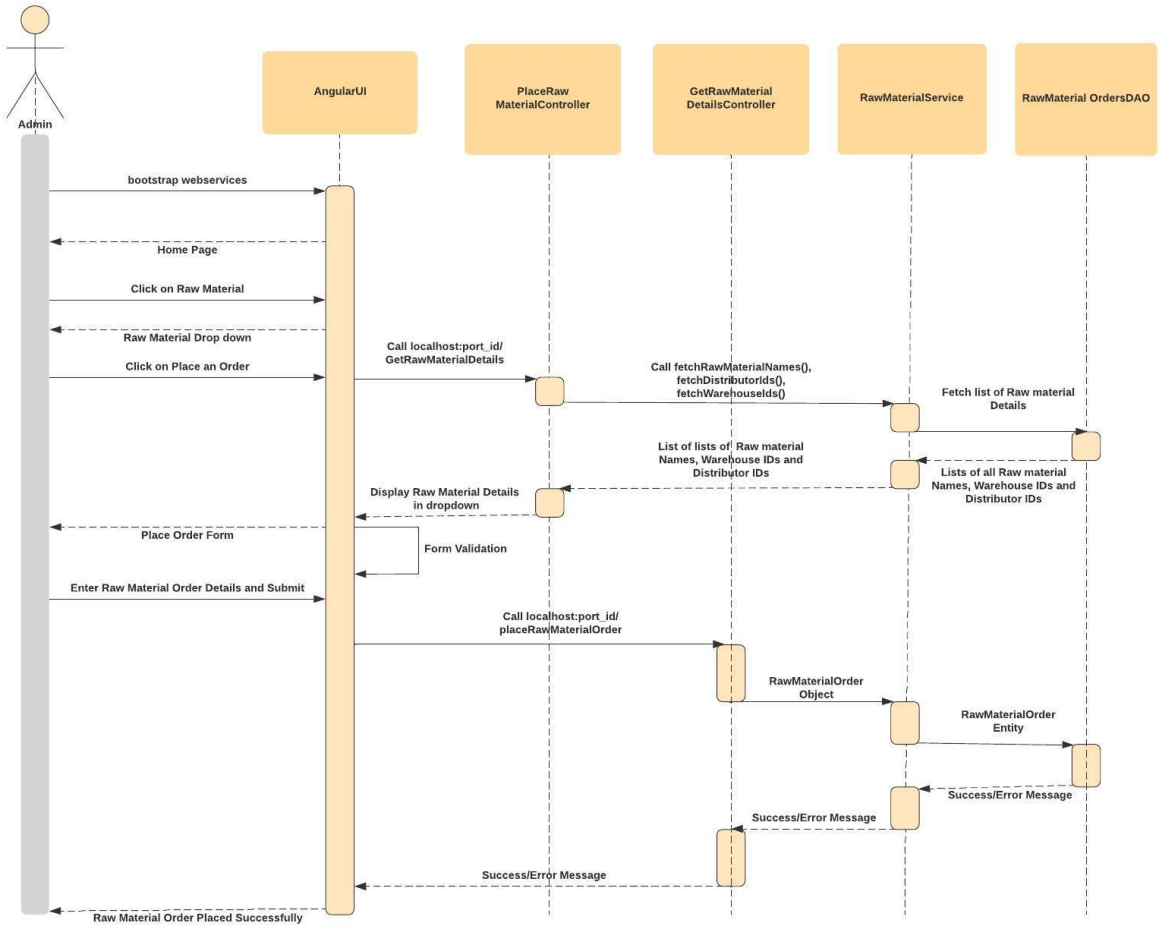
When the user clicks on 'Place an order' tab under 'Raw Material' dropdown, the user sees a form to add following Raw Material order details:

- Raw Material Name
- Supplier ID
- Warehouse ID
- Quantity value and unit
- Price per Unit
- Expected Date of delivery

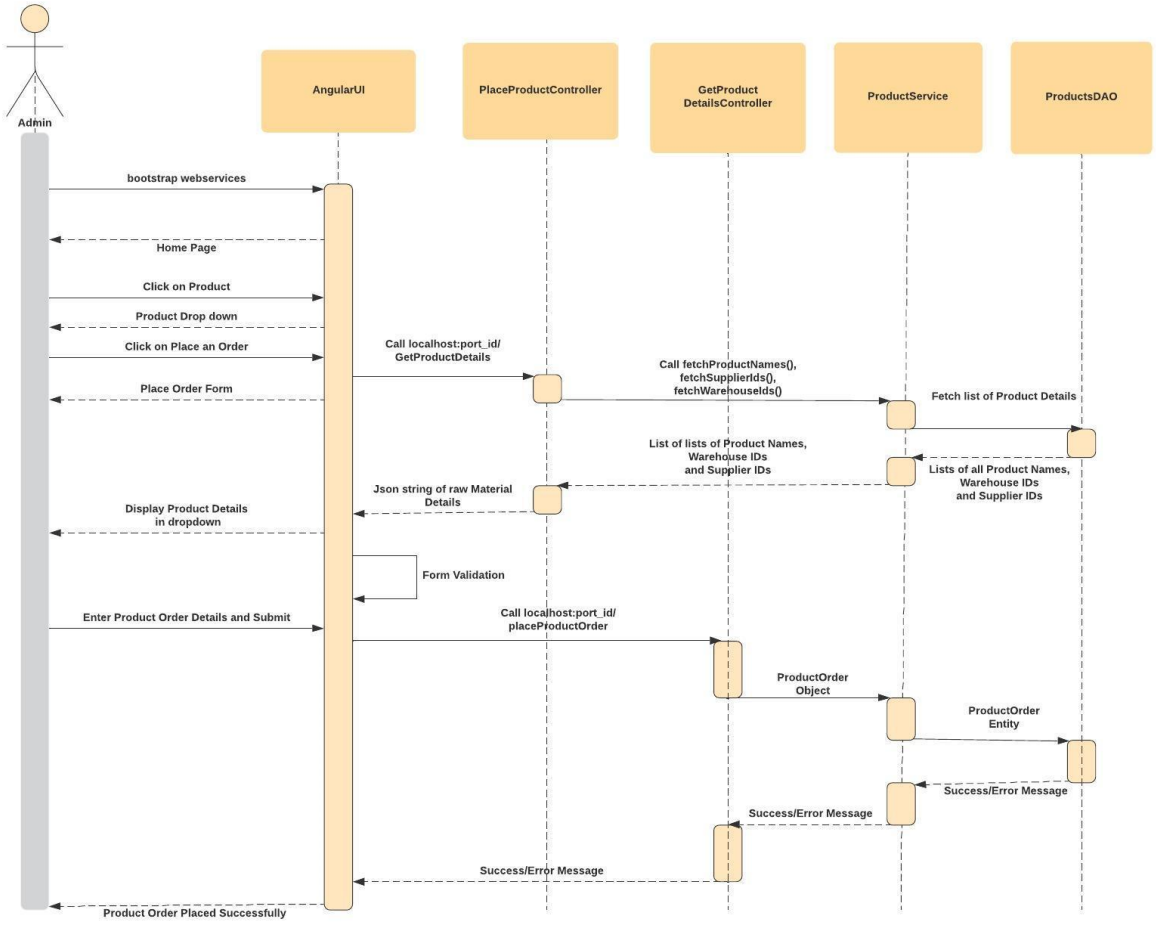
Now there is a Submit button that the user needs to click which would allow the send the request to the Rest Controller at the backend.

Here, the values in the dropdowns of Raw Material Name, Supplier ID, Warehouse ID are loaded from the backend when the page is loaded. Also, date is restricted in such a way that the user can enter a date before 2 months from the current date. Thus, the user cannot enter a past date or a date after 2 months from the current date. The Quantity value and Price per Unit values need to be number and the field cannot be empty. This has been handled in the Angular Component.

Sequence Diagram for Place Raw Material Order



Sequence Diagram for Place Product Order



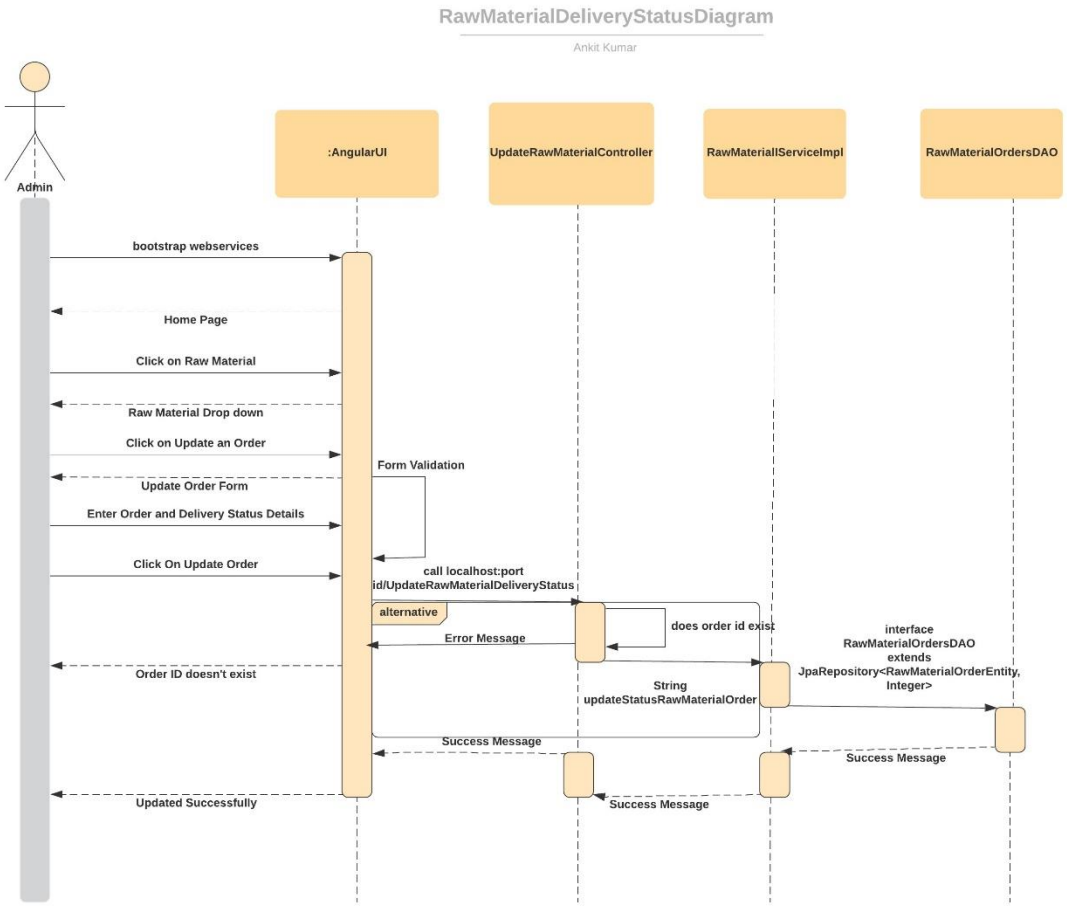
b) Update an Order

When the user clicks on 'Update an order' tab under 'Raw Material' or ‘Product Order dropdown’, the user sees a form to update delivery status of an Order :

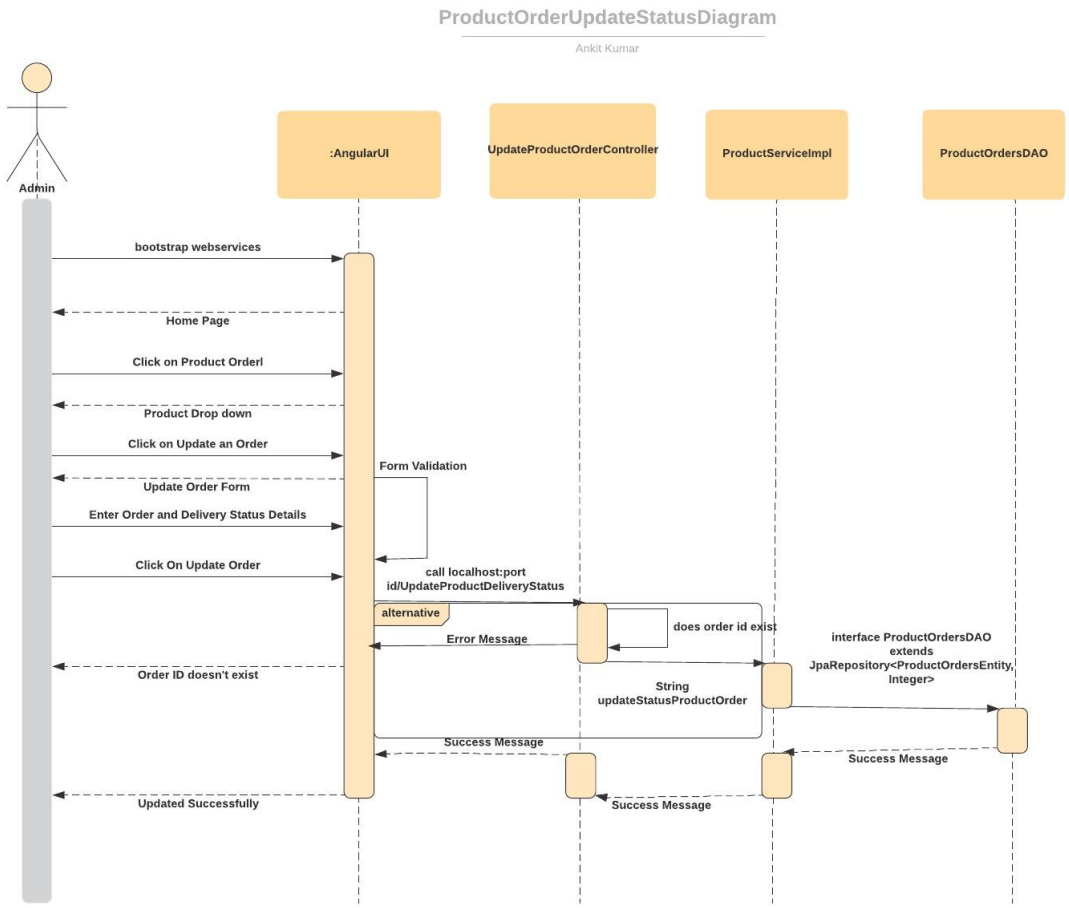
- Raw Material Order Id/ Product Order Id
- Delivery Status

Now there is an Update Order button that the user needs to click which would allow the send the request to the Rest Controller at the backend and change delivery status in database.

Sequence Diagram to Update Delivery Status of Raw Material Order



Sequence Diagram to Update Delivery Status of Product Order



c) Display Order

1.Raw Material

When the user clicks on 'Display Raw Material ' tab under 'Raw Material' dropdown, the user sees a form to submit the required details:

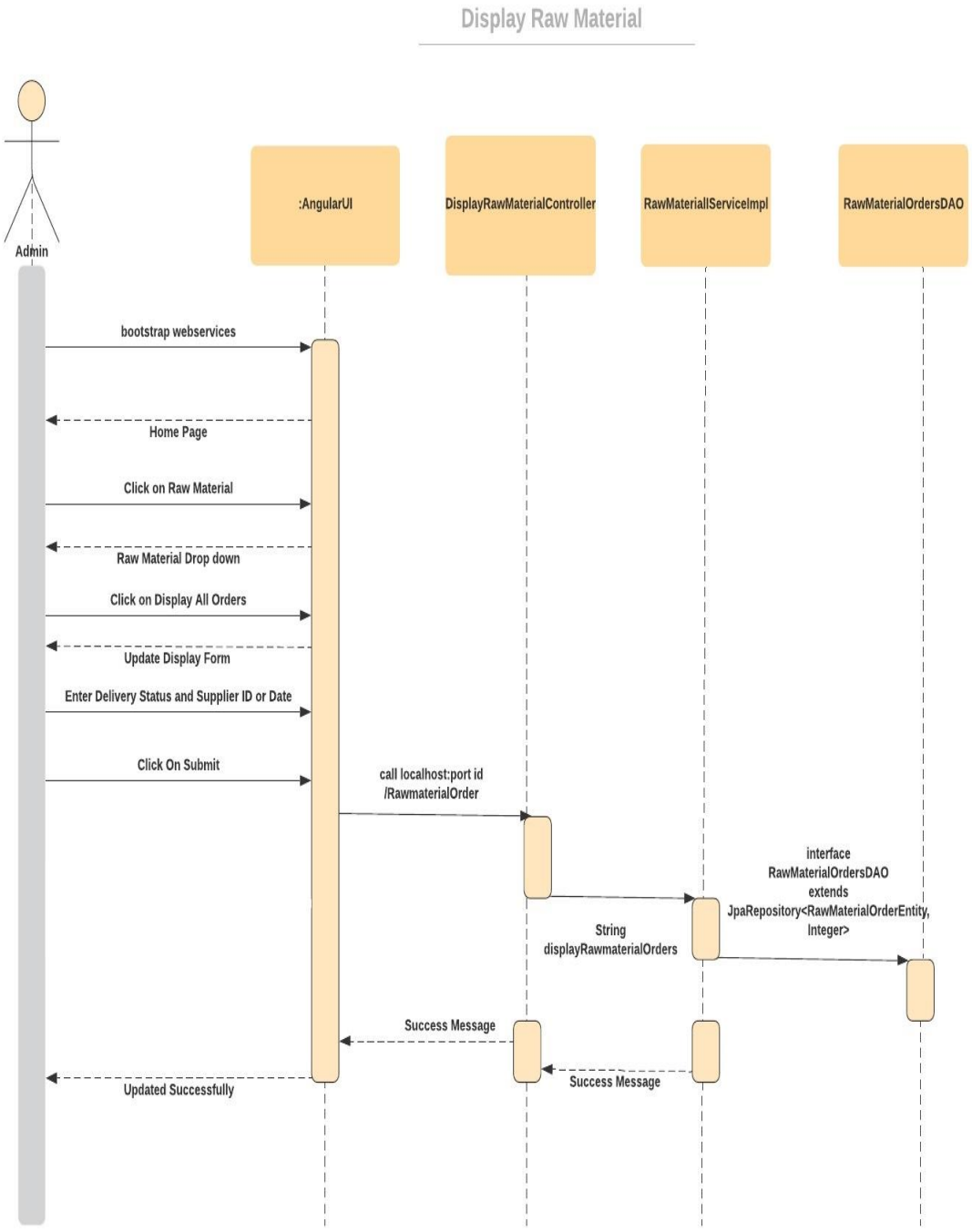
- Supplier ID
- Delivery Status
- Start Date - Optional
- End Date - Optional

Now here the user has the option to select the date range between which he wishes to display the orders. Finally, to submit the form user clicks on the Submit which would send the request to the Rest Controller at the backend.

Here, the values in the dropdowns of Supplier ID and Delivery Status are fixed in the angular html Template. Also, Start Date and End Date are restricted in such a way that the user can

enter a date after 2019 January and the Max Date allowed is the current Date. . This has been handled in the Angular Component.

Sequence Diagram for Display Raw Material Orders



2.Product

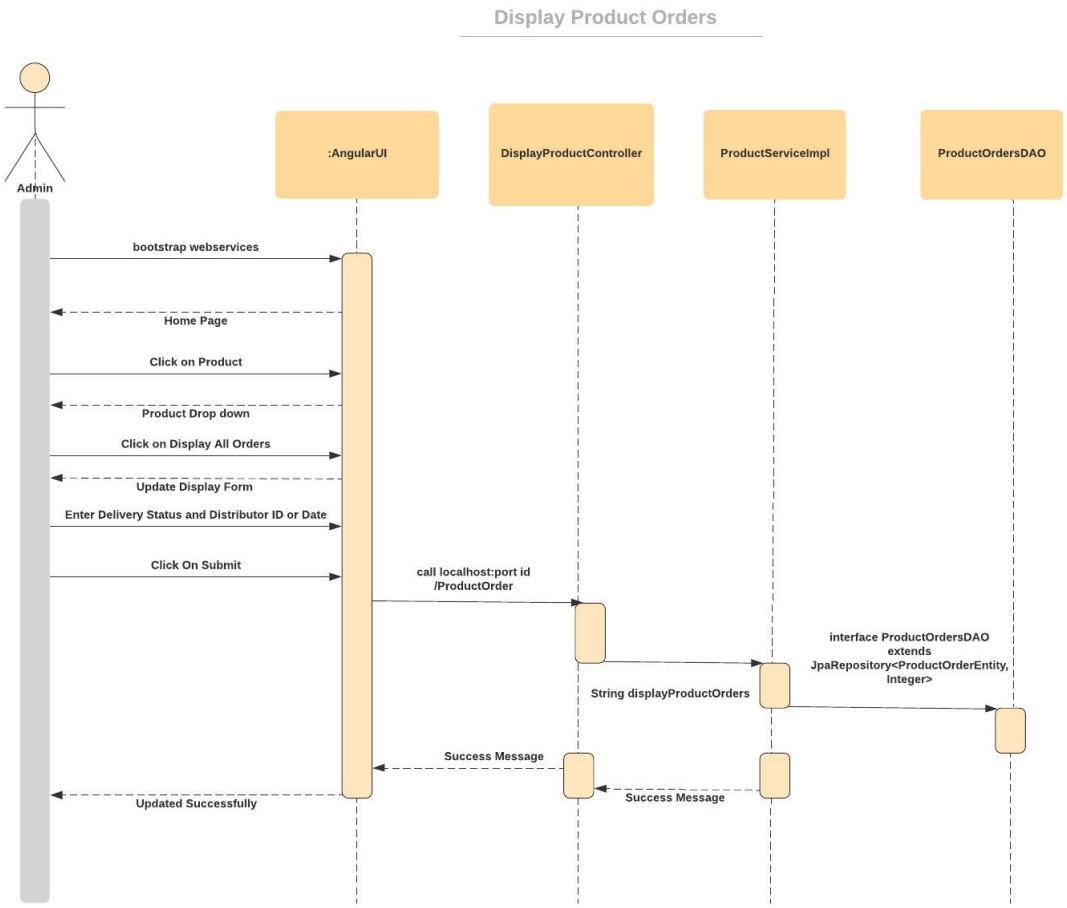
When the user clicks on 'Display Product ' tab under ' Product ' dropdown, the user sees a form to submit the required details:

- Distributor ID
- Delivery Status
- Start Date - Optional
- End Date - Optional

Now here the user has the option to select the date range between which he wishes to display the orders. Finally, to submit the form user clicks on the Submit which would send the request to the Rest Controller at the backend.

Here, the values in the dropdowns of Distributor ID and Delivery Status are fixed in the angular html Template. Also, Start Date and End Date are restricted in such a way that the user can enter a date after 2019 January and the Max Date allowed is the current Date. . This has been handled in the Angular Component.

Sequence Diagram for Display Product Orders



d) Display Supplier Details

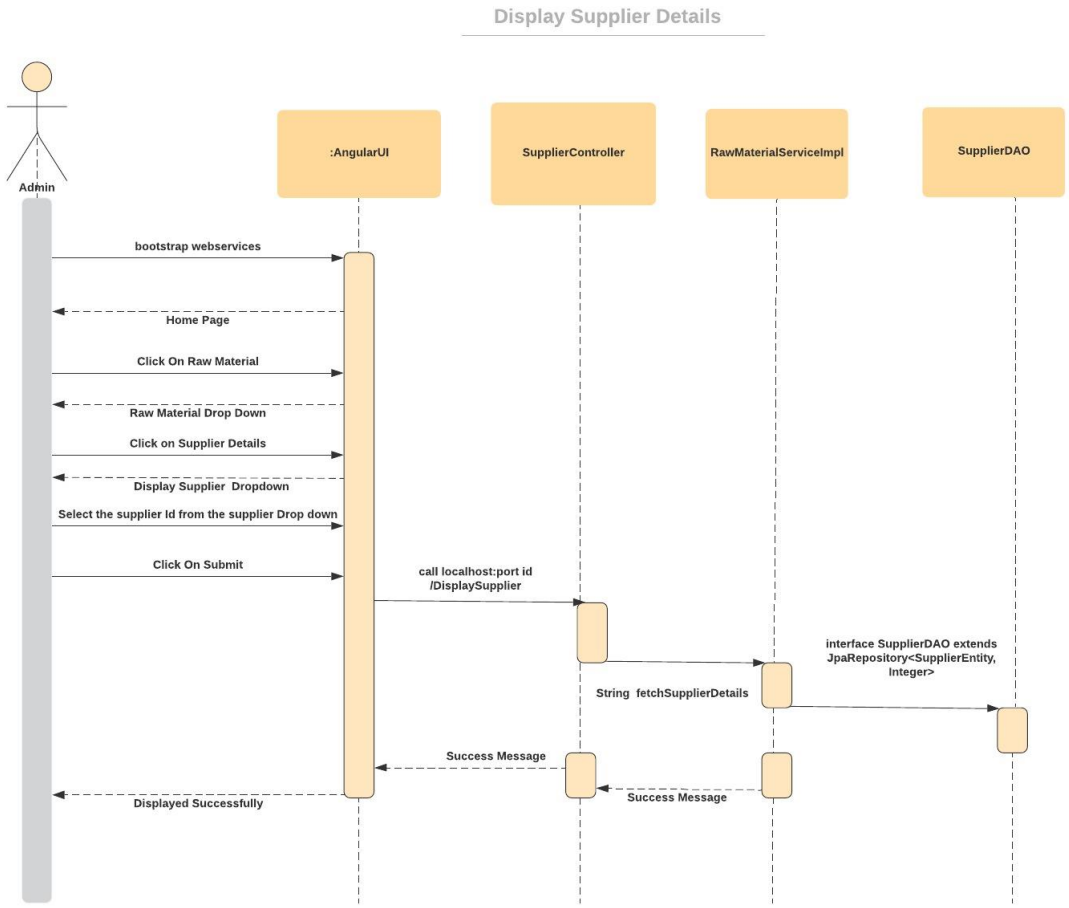
When the user clicks on 'Display Supplier ' tab under 'Raw Material' dropdown, the user sees a dropdown to select the required supplier Id.

Now here the user has to select the desired supplier Id whose details he would like to see. Here, the values in the dropdowns of Supplier ID is fixed in the angular html Template. This has been handled in the Angular Component.

Finally, he clicks on the Submit button which would send the request to the Rest Controller at the backend.

The table with all the details (Supplier Id, Name, Address, Phone No.) of that particular supplier is displayed.

Sequence Diagram for Display Supplier Details



e) Display Distributor Details

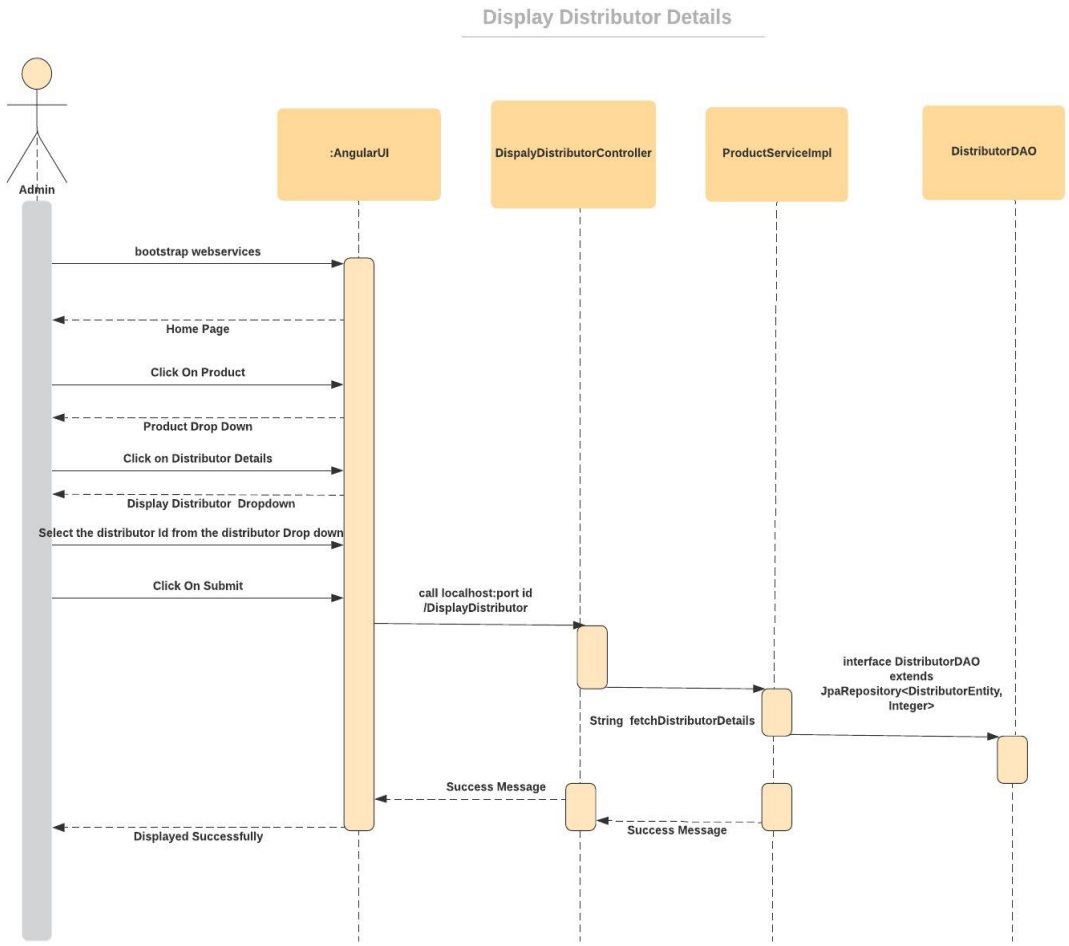
When the user clicks on 'Display Distributor ' tab under 'Raw Material' dropdown, the user sees a dropdown to select the required supplier Id.

Now here the user has to select the desired distributor Id whose details he would like to see. Here, the values in the dropdowns of Distributor ID is fixed in the angular html Template. This has been handled in the Angular Component.

Finally, he clicks on the Submit button which would send the request to the Rest Controller at the backend.

The table with all the details (Distributor Id, Name, Address, Phone No.) of that particular Distributor is displayed.

Sequence Diagram for Display Distributor Details



5.3 Raw Material/ Product Stock Management

Overview

The life cycle of a Raw material/ Product Stock is handled in this case. Updating of Stock inventory according to the received order of raw material/product is done. Functions

include set process date for raw material, set exit date for product, update other stock details (manufacturing date, expiry date and quality status) for both raw material and product. Track time and location of raw material and product is also a function.

Prerequisite

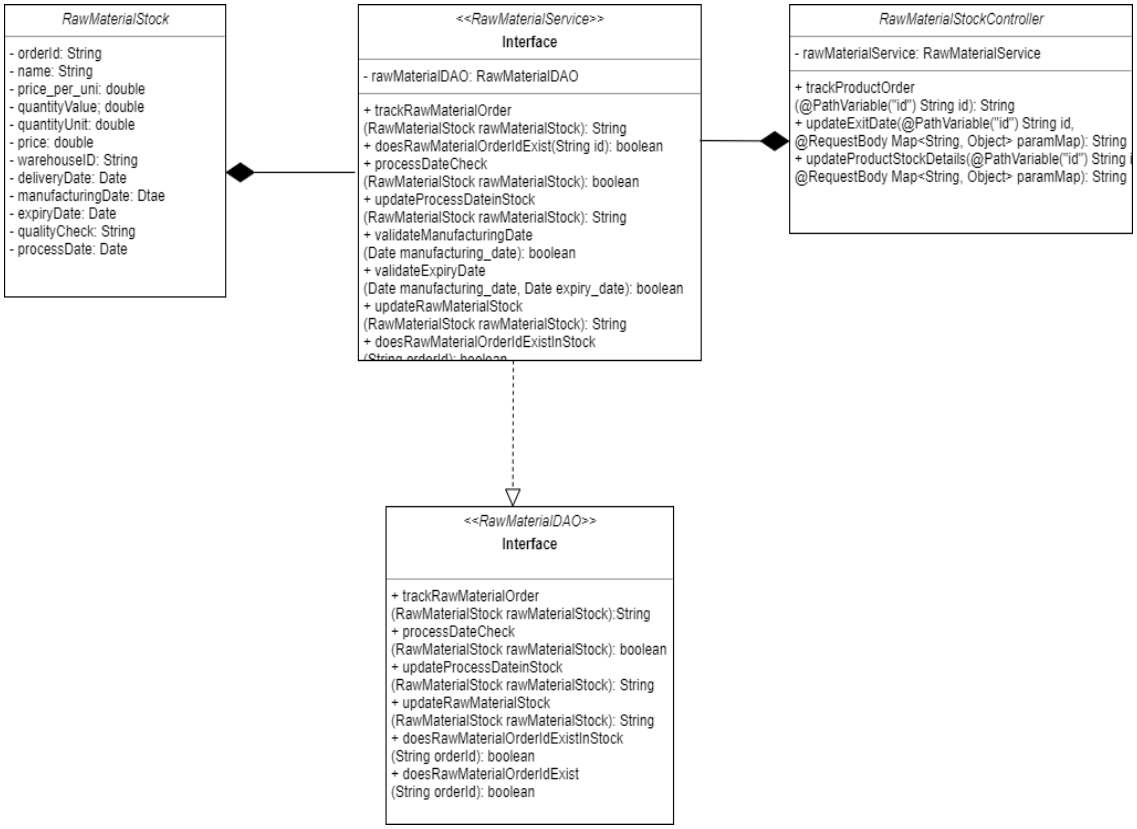
User must as USER should be able to perform the required functionalities of Stock Management for Raw material and Products for our client Drink and Delight.

Designed and Implemented By:

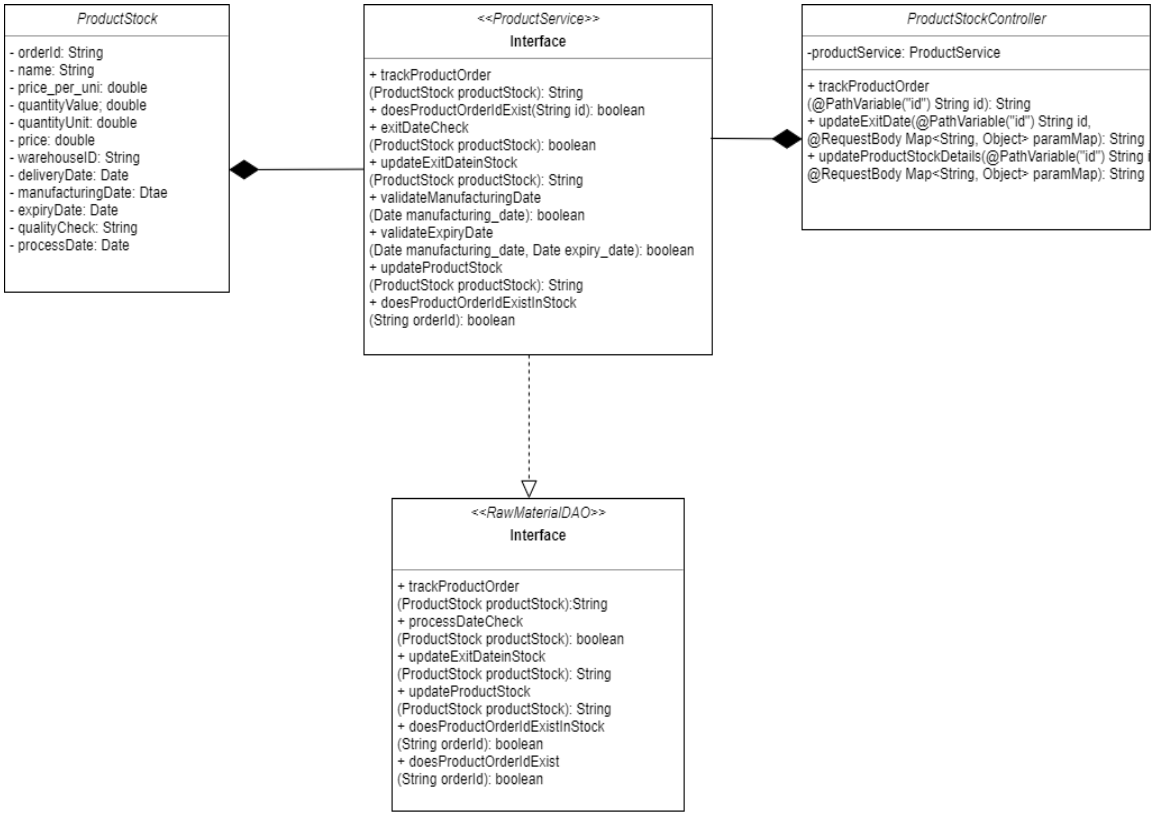
For Product Stock Management:
Diksha Gupta
(Id: 46003707)
Designation: Senior Analyst

For Raw Material Stock Management:
Gaurav Jayant Gaikwad
(Id: 46001535)
Designation: Senior Analyst

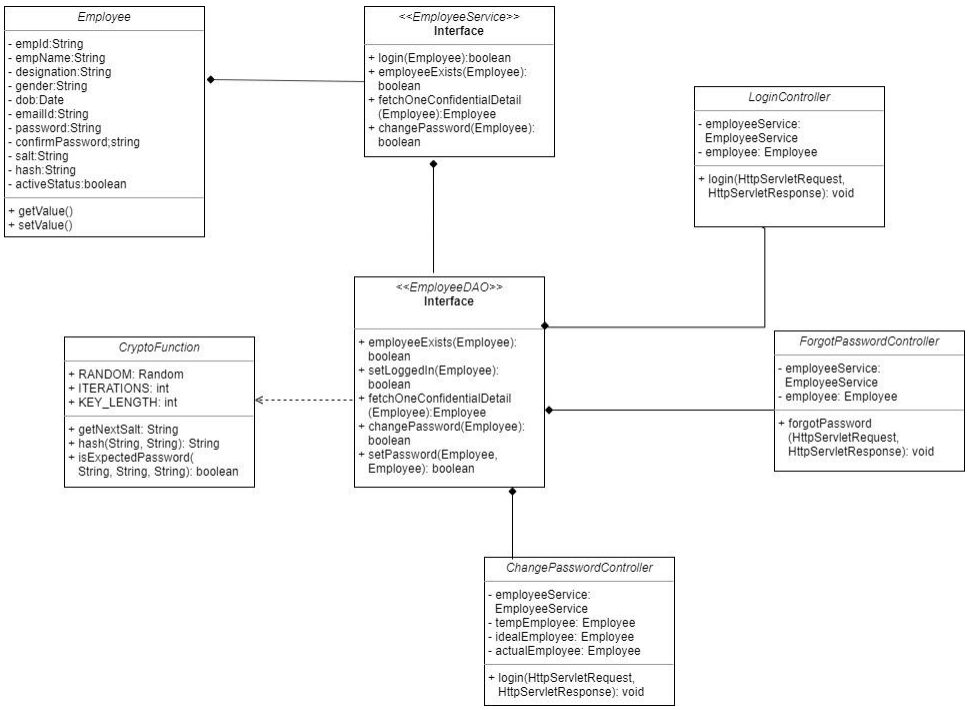
Class Diagram for Raw Material Stock Management:



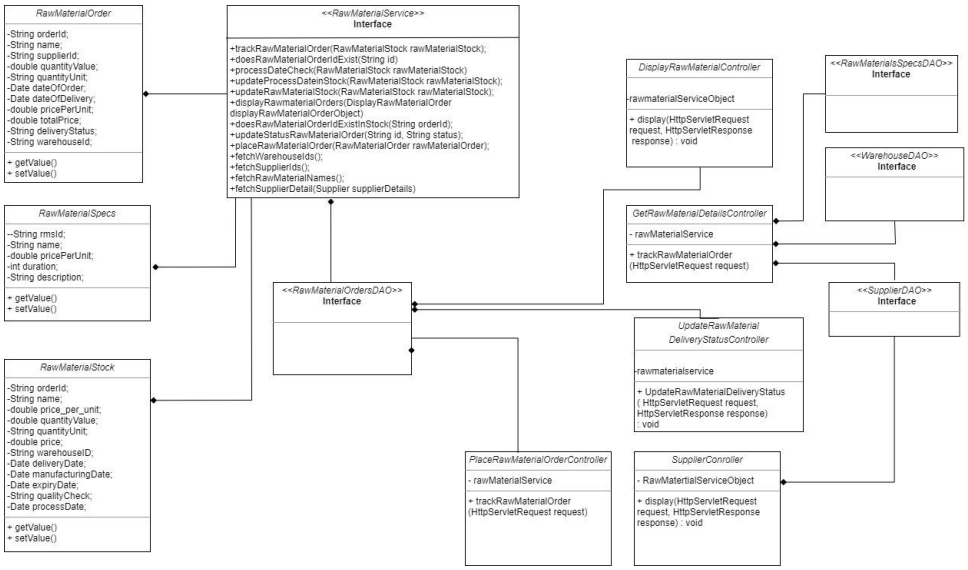
Class Diagram for Product Stock Management:



Class Diagram of Login Functionality:



Class Diagram of Raw Material Order management:



Project Progress Status (Product Management System)

Sprint#	Task Assigned	Status	Remark
Sprint 1	Creating UML Diagrams, Defining Test Cases and Sequence Diagrams	Epic and Stories written. Use Case Diagram and Sequence Diagram defined	Update the sequence diagram, include the life block in sequence diagram. Develop Knowledge about micro services architecture
Sprint 2	Implement the test cases using Junit, Implement the modules with core java implementation. Use Java Collection API for data storage (non-persistence)	Modules Implemented using Java. Junit test cases are written and successfully tested. Sequence Diagrams are modified according to the previous sprint feedback	3-layer architecture is not properly designed. Write more test case scenario. Properly comment the code. Code Convention is not upto industry standard. Presentation layer is not implemented
Sprint 3	Implement 3-tier architecture. Link the business logic with Database using JDBC connection	Database is designed as per ER Diagram. DAO, Service and Presentation layer	All ok

		is properly implanted. All Validations are done in presentation layer. Code is properly commented. Inline comments and redundant codes are removed. JDBC connections are done. Logger is being implemented.	
Sprint 4	Design the front end with Html , CSS, Bootstrap	Front end pages are designed with HTML, CSS and Bootstrap. JSP and servlet are being used to connect the front end with backend Java modules.	Pages are not made responsive for mobile. Proper use of bootstrap is missing. Unity in colour scheme is missing. Additional advise : To make the software more dynamic. Toaster message should be implemented
Sprint 5	Replace the presentation layer with Angular client App and write the BDD test Cases using cucumber.	Angular app is designed. Pages are made mobile responsive according to the previous sprint feedback. Colour scheme is done uniform across all pages. Entire project is made dynamic. Toastr messege have been implemented Jersey as well as Servlet Technology is being explored to link the front-end with backend	Proper Scrum Model is not followed. Every Individual is being asked to assigned a single module. JDBC connections are not closed properly. Proper Documentation is missing.
Sprint 6 & Sprint 7	Replace JDBC	JDBC is being	Proper

	connection with JPA Hibernate. Implement Sprint MVC	replaced with JPA Hibernate API. Connection open and close is being managed by session and transaction management of Hibernate. Singleton design is being done for session and transaction management is done using Spring bean. Dependency injection is implemented using Auto wiring. Started working on updated documentation. We have properly divided the modules.	Documentation required. Add proper validation for product id and product image. Write Spring test cases. Additional Advise: To implement audit trail
Sprint 8	Spring Boot Implementation	Spring Boot implemented	Advised to use RestTemplate