AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH

FACULTY OF SCIENCE AND TECHNOLOGY

Assignment Title:	FoodSavvy: A Digital Solution for Efficient Food Waste Management		
Assignment No:	Exercise-5	Date of Submission:	07 March, 2024
Course Title:	Software Engineering		
Course Code:	CSC 3112	Section:	I
Semester:	**Spring 2023-24**	Course Teacher:	Tonny Shekha Kar

* *Student(s) must complete all details except the faculty use part.*
** Please submit all assignments to your course teacher or the office of the concerned teacher.

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Description about FoodSavvy Diagram(Use-Case Diagram, Class Diagram, Sequence Diagram, Activity Diagram, ER Diagram)

"FoodSavvy: A Digital Solution for Efficient Food Waste Management" utilizes a range of diagrammatic representations to elucidate its intricate operational framework. The Use Case Diagram provides a broad overview of the system's functionalities, outlining the various actions that Admins, Distributors, and Consumers can undertake. From managing inventory to processing orders and tracking deliveries, this diagram encapsulates the essence of user interactions within the platform. Complementing this, the Class Diagram delves into the structural aspects of FoodSavvy, illustrating the key entities such as Admins, Distributors, Consumers, and Food Items, along with their attributes and associations. Meanwhile, the Sequence Diagram offers a sequential depiction of interactions between users and the system, delineating the flow of processes like order initiation, processing, and fulfillment. On the other hand, the Activity Diagram provides a more detailed insight into the procedural workflows within the system, mapping out tasks such as order processing and inventory management in a step-by-step manner. Lastly, the ER Diagram presents a visual representation of the system's database schema, showcasing entities like Users, Orders, and Food Items, along with their relationships, to ensure efficient data management and retrieval. Together, these diagrammatic representations offer stakeholders a comprehensive understanding of FoodSavvy's functionalities and operational intricacies, facilitating seamless food waste management processes.
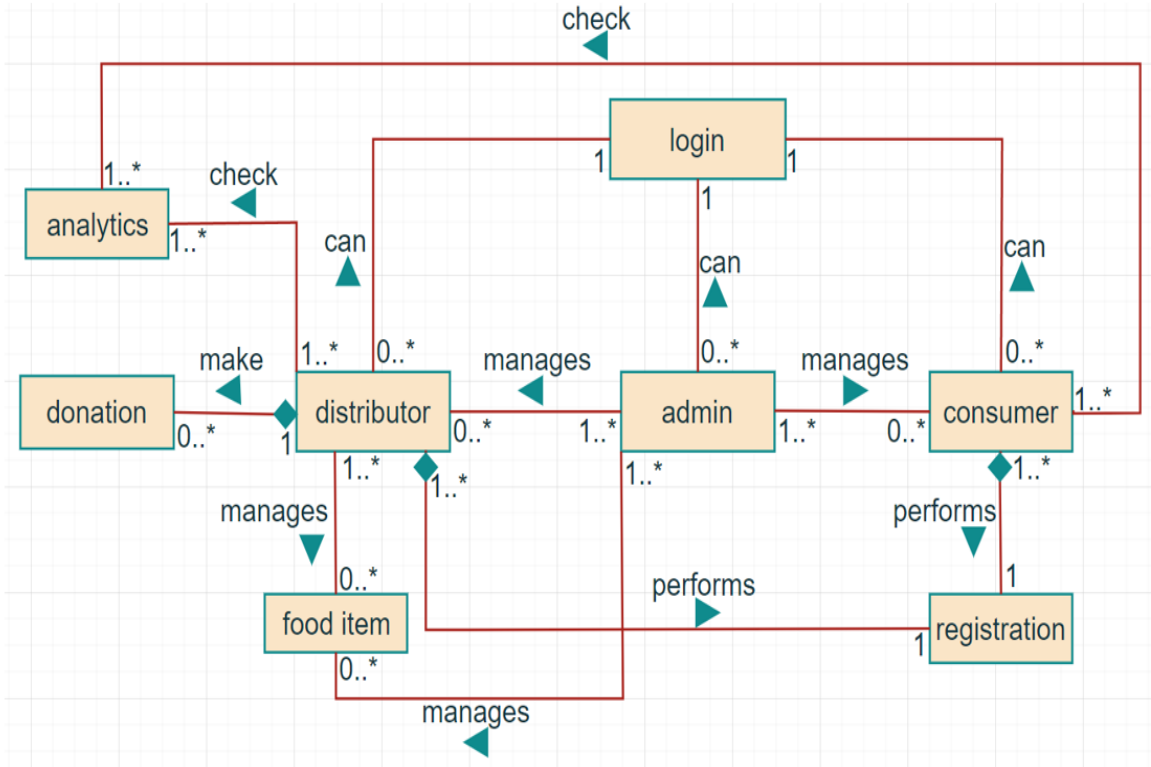
Use Case Diagram
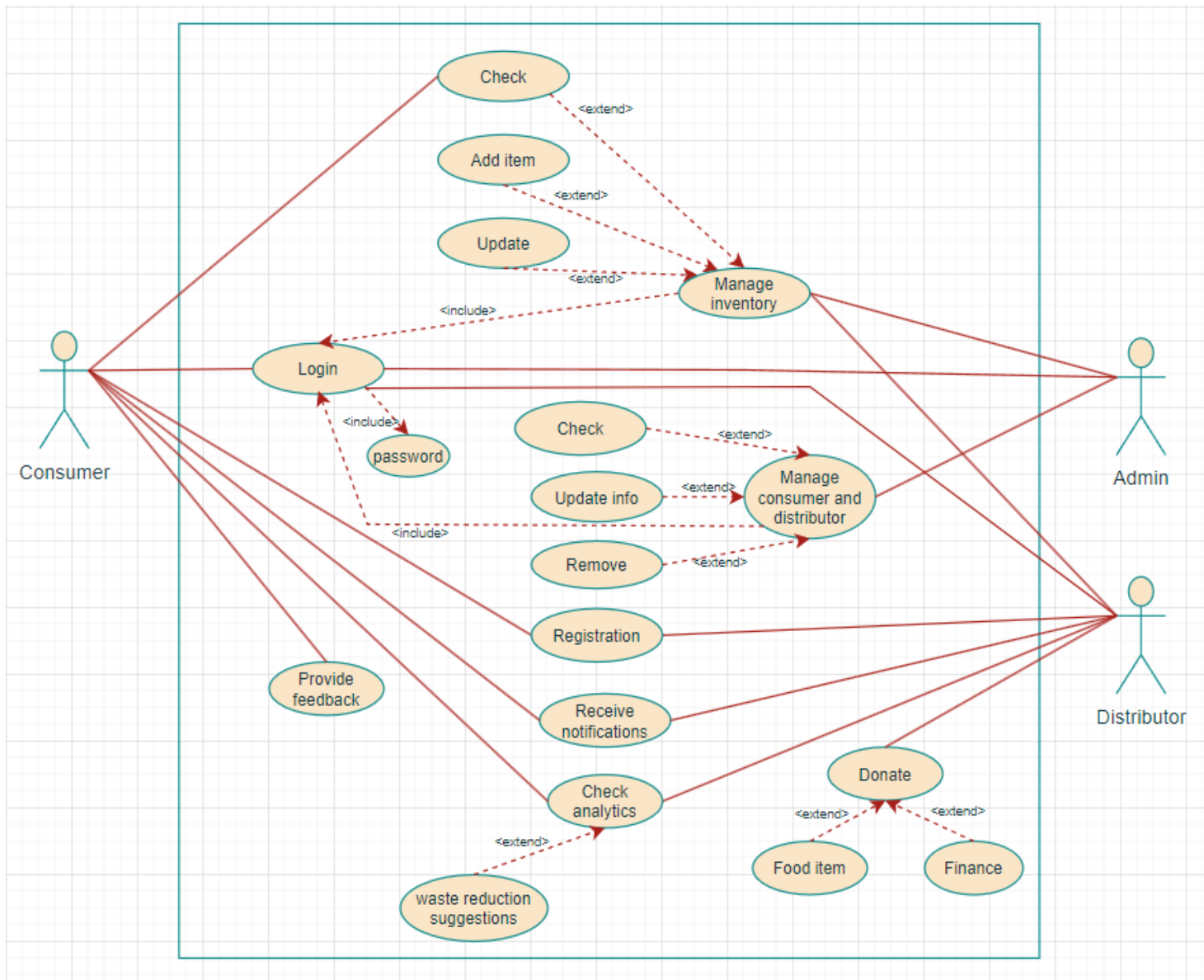
Description:

Use Case Diagram:
- Illustrates system functionalities and user interactions.
- Depicts actions that Admins, Distributors, and Consumers can perform.
- Includes activities such as managing inventory, processing orders, and tracking deliveries.
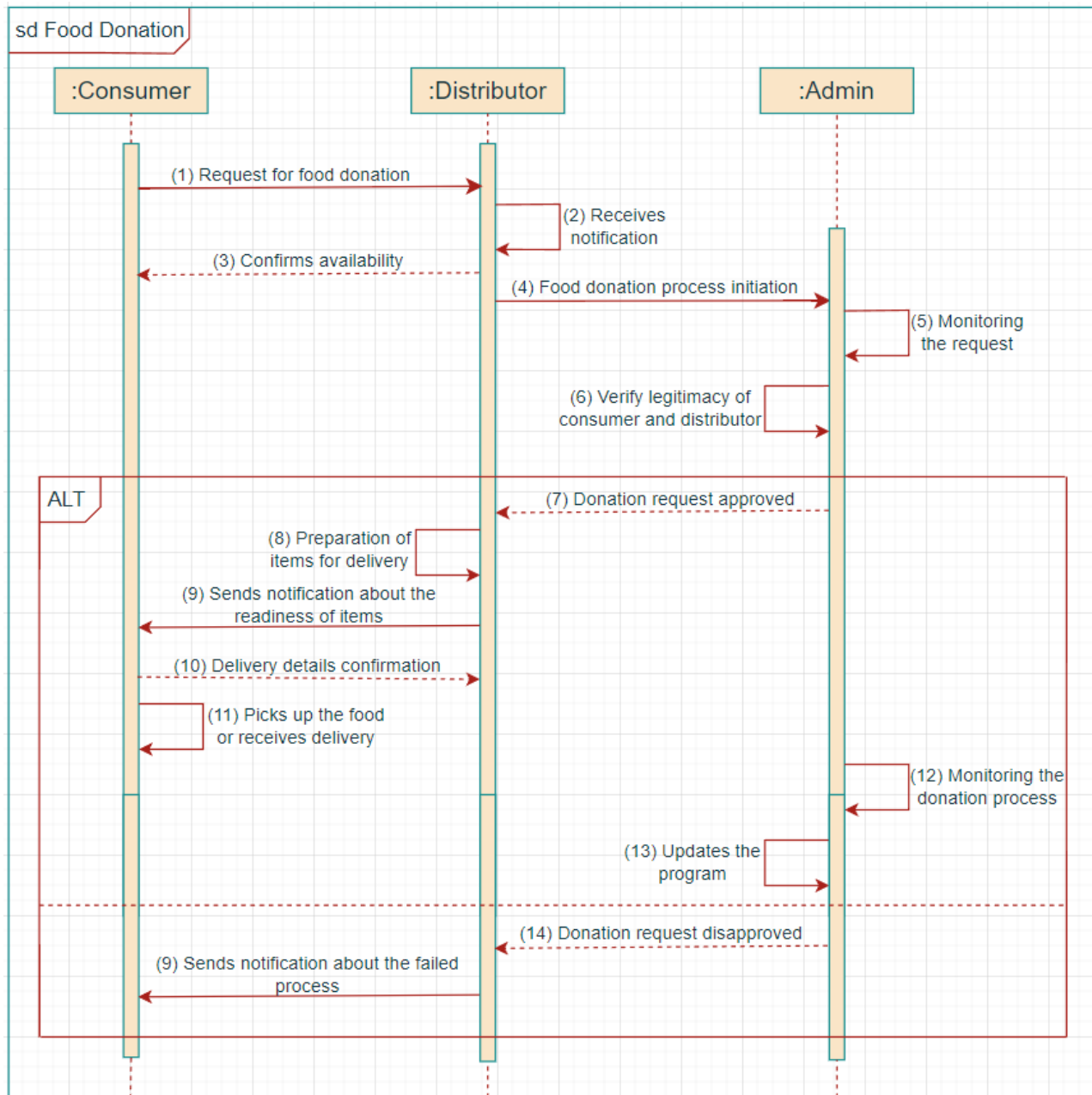
Class Diagram

Description:

Class Diagram:
- Represents the structural framework of the system.
- Defines essential entities like Admins, Distributors, Consumers, and Food Items.
- Specifies attributes and relationships between classes.

Sequence Diagram

sd Food Donation

:Consumer   :Distributor   :Admin

(1) Request for food donation

(2) Receives notification

(3) Confirms availability

(4) Food donation process initiation

(5) Monitoring the request

(6) Verify legitimacy of consumer and distributor

ALT

(7) Donation request approved

(8) Preparation of items for delivery

(9) Sends notification about the readiness of items

(10) Delivery details confirmation

(11) Picks up the food or receives delivery

(12) Monitoring the donation process

(13) Updates the program

(14) Donation request disapproved

(9) Sends notification about the failed process

Description:

Sequence Diagram:
- Visualizes the chronological sequence of interactions between users and the system.
- Shows the flow of processes such as order initiation, processing, and fulfillment.
- Helps understand the temporal aspect of system operations.
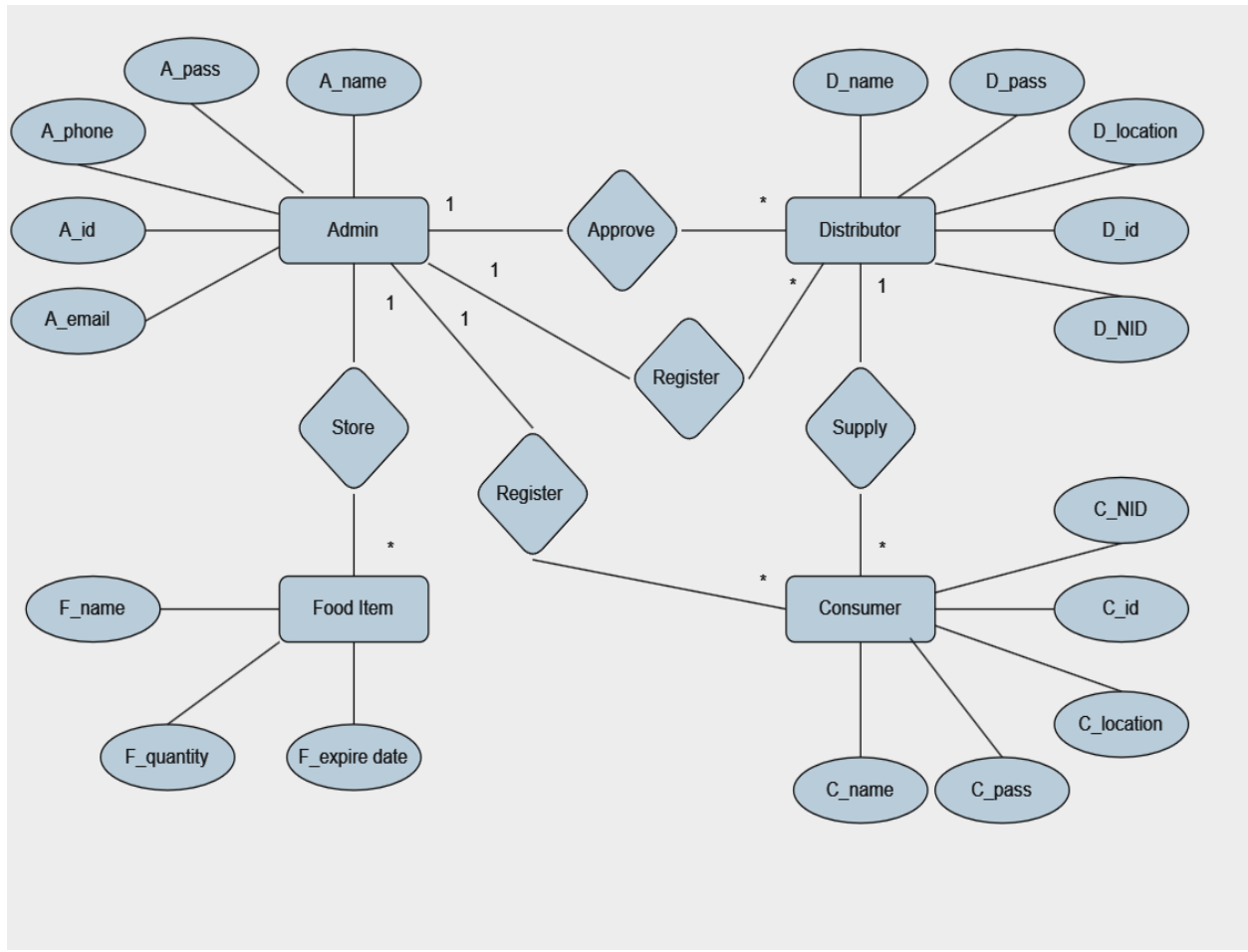
Activity Diagram
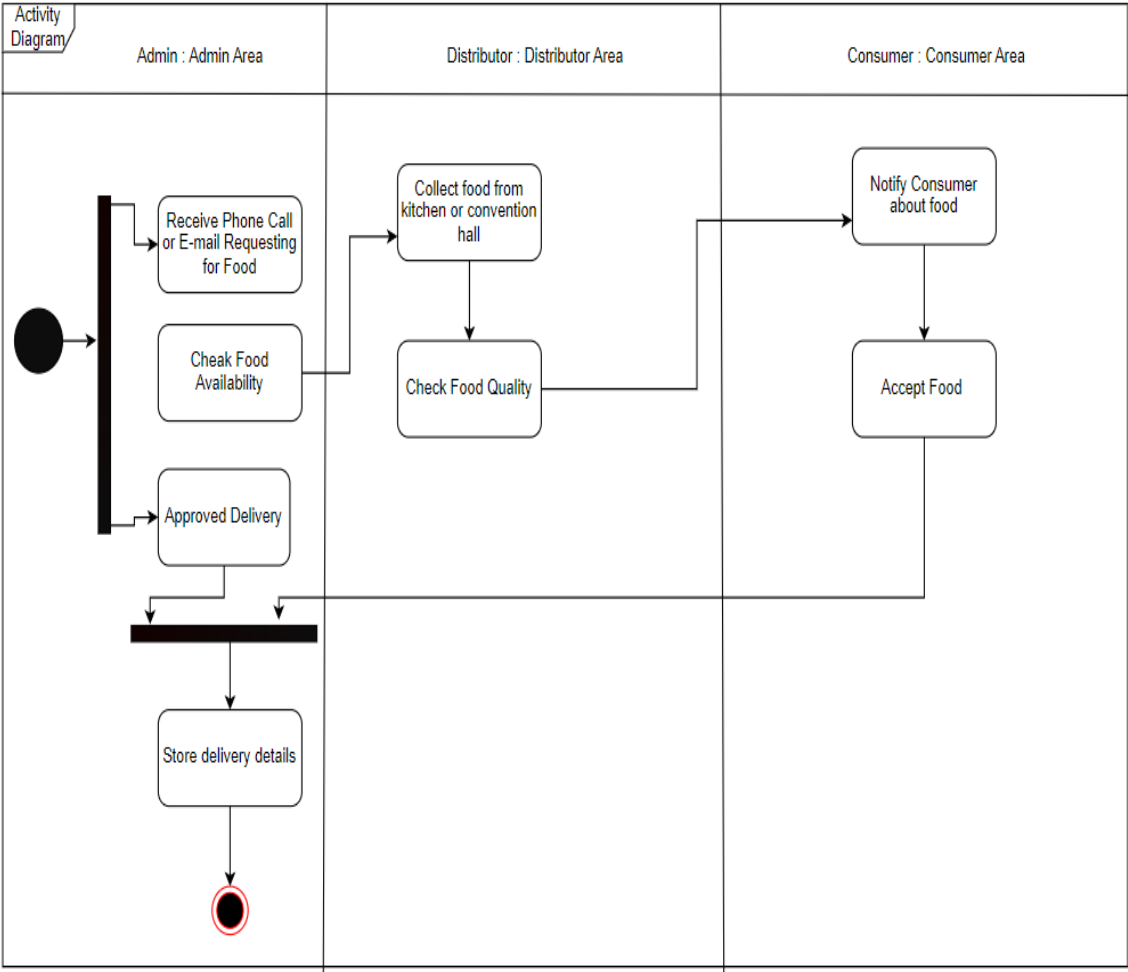
Description:

Activity Diagram:
- Illustrates procedural workflows within the system.
- Provides step-by-step representation of tasks like order processing and inventory management.
- Offers a detailed insight into the operational procedures of the system.

ER Diagram

Description:

ER Diagram:
- Represents the system's database schema.
- Identifies entities such as Users, Orders, and Food Items.
- Shows the relationships between entities to ensure efficient data management and retrieval.