



Software Construction and Development

Lab Report#05

Submitted to:

Fatima Gillani

Submitted by:

Hafsah Ashraf

Numl-FL-21153

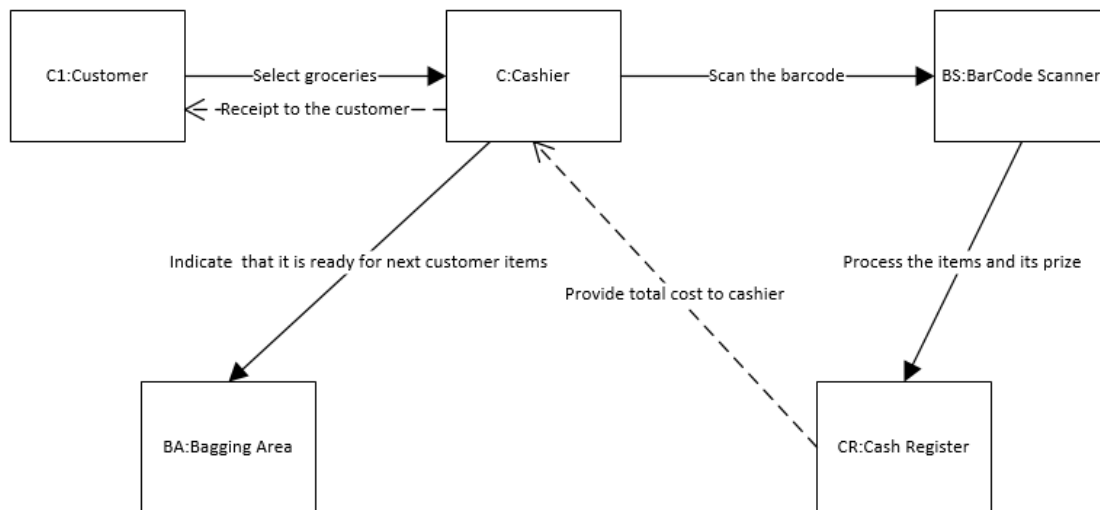
BSSE-VA-Morning

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Question#01

Consider a Grocery store where Customers select their groceries and proceed to the checkout counters. Cashiers scan and process the items using Barcode Scanners. They communicate with Cash Registers to calculate the total cost. Cash Registers record item prices, tally the bill, and process payments. The Bagging Area provides a place for customers to bag their items after they are scanned and paid for. It communicates with Cashiers to signal when it's ready for the next customer's items. Draw the communication diagram while using all the appropriate UML notations.

Answer:

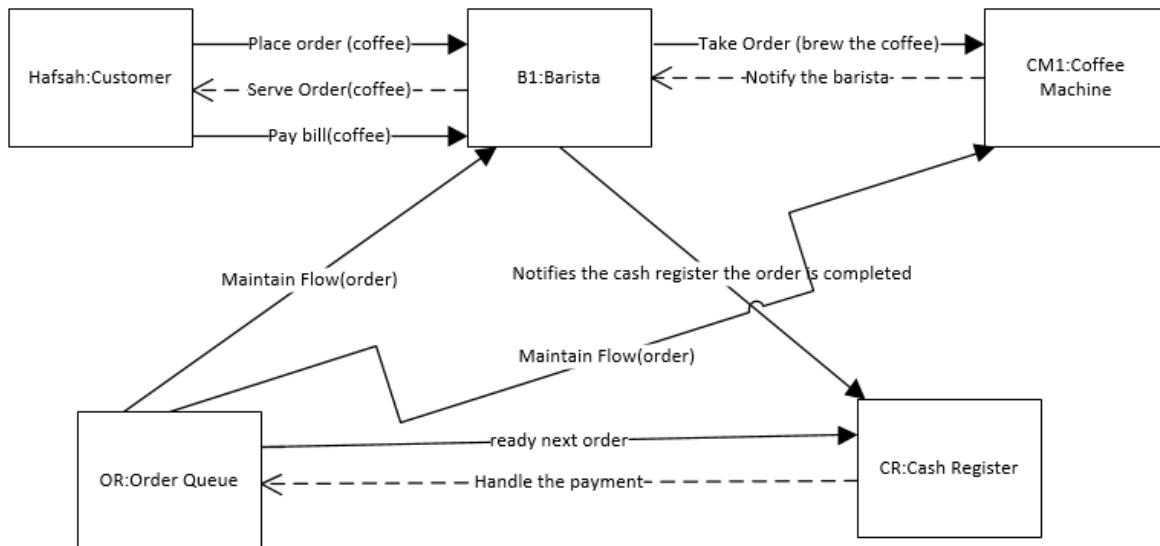


Question#02

Imagine a coffee shop environment where various elements collaborate to serve customers efficiently. Customers place their coffee orders with the Baristas, specifying their preferences. Baristas take these orders and relay them to the Coffee Machines. The Coffee Machines brew coffee based on the orders received. Once ready, they notify the Baristas. Baristas prepare the coffee by adding milk, sugar, or other requested ingredients. They then serve the completed orders to the Customers. The Cash Register keeps track of the orders and handles payments. After receiving payment, it notifies the Order Queue to prepare the next order. The Order Queue organizes the orders and ensures they are prepared in the right sequence. It communicates with the Baristas and Coffee Machines to maintain a smooth workflow.

Draw the communication diagram while using all the appropriate UML notations

Answer:



Question#03

Consider an Eye Health Checkup App scenario, various elements collaborate to provide users with a convenient way to monitor and assess their eye health. Ali access the Eye Health App on his smartphones to perform eye health checkups.He scans his retina. Users perform retina scan using the app, which captures and records data such as visual acuity, eye pressure, or color Ali gets abnormal test results so he opt for professional advice, the app allows Ali to connect with an Eye Specialist. Ali can schedule virtual consultations with the Eye Specialist .The Notification System sends reminders and alerts to Ali to conduct regular eye health checkups. It also notifies Ali of appointments with Eye Specialists and provides test results and recommendations.

Answer:

