

ISDS 552
Project on
Car Dealership (Sales)

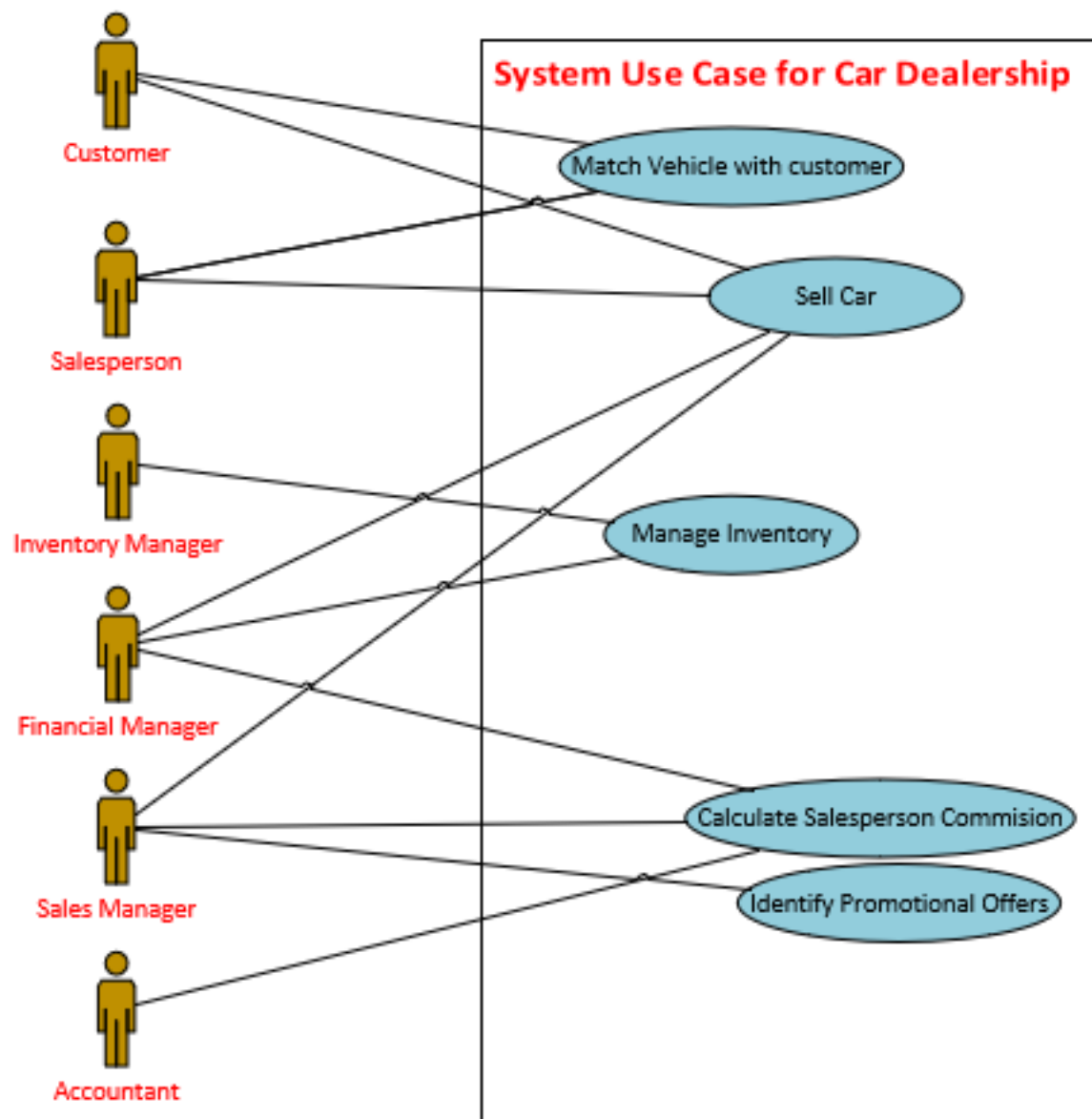


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System Request – Car Dealership Project

Use Case Diagram for Car Dealership System

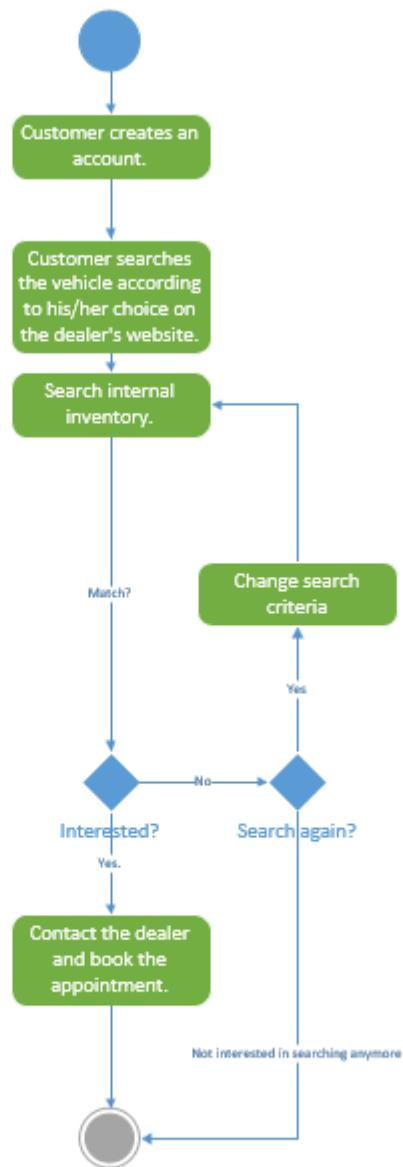


Use case 1: Match Vehicle with Customer

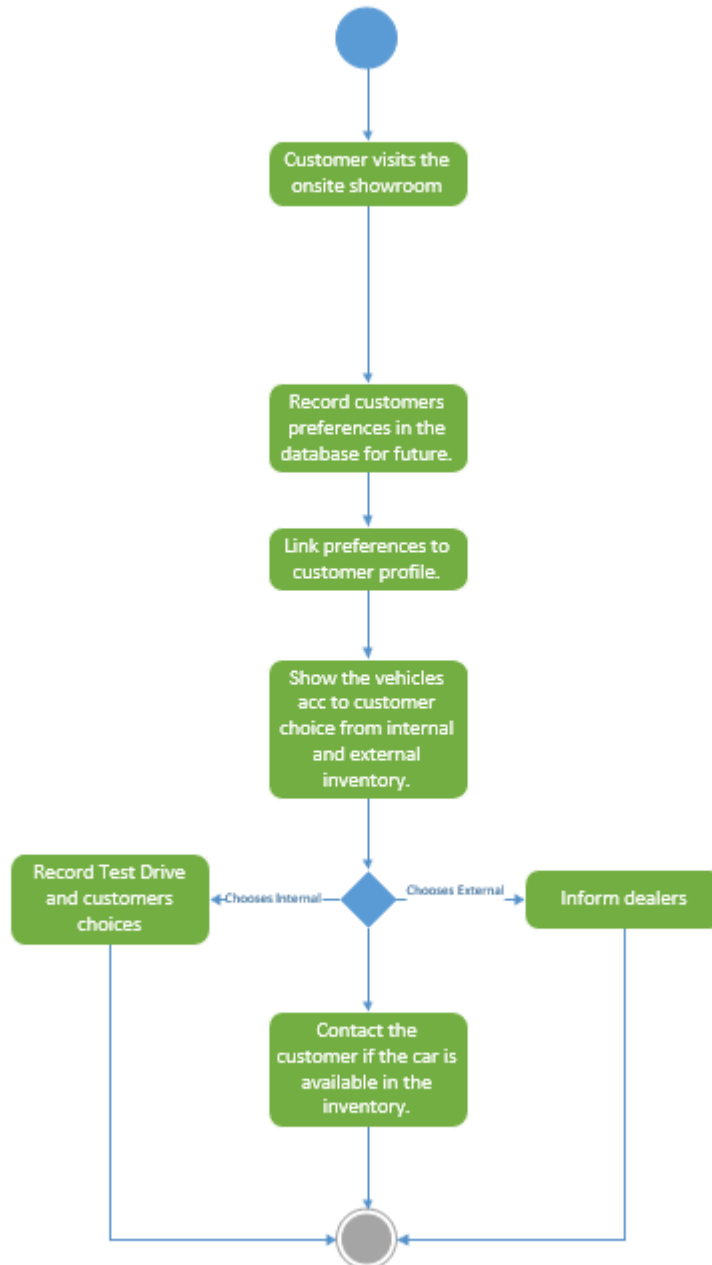
Use Case Name: Match Vehicle with Customer (on-site)	ID: 01	Importance Level: High
Primary Actor: Salesperson	Use Case Type: Brief, Essential	
Stakeholders and Interests: <ul style="list-style-type: none">• The Salesperson helps the customer to choose from an internal or external inventory of cars when he visits the showroom.• The essential data collected from the customers and stored in the system.		
Brief Description: This use case describes how a customer can be matched with his/her vehicle on-site and the customer preferences are saved in the system.		
Trigger: The customer providing salesperson preferences. Type: External		
Relationships: Association: Customer Include: Exclude: Generalization:		
Basic Flow of Events: <ol style="list-style-type: none">1. Customer visits on-site showroom.2. Salesperson records the preferences of the customer and stored in the database.3. The vehicles are provided to the customer based on their choices from the internal inventory, otherwise from the external inventory.4. The test drive is also provided and the data including preferences in extra accessories is recorded.		
Sub Flows: S-1: Vehicle is not available in internal inventory but present in external inventory. <ul style="list-style-type: none">• Dealers are alerted. S-2: Vehicle is not present in internal as well as external inventory. <ul style="list-style-type: none">• Customer is informed as soon as vehicle comes in the inventory.		
Alternative/Exceptional Flow: Customer chooses car through websites. Steps 4 and 5 are iterated.		

Use Case Name: Match Vehicle with Customer (online)	ID: 01	Importance Level: High
Primary Actor: Customer	Use Case Type: Brief, Essential	
Stakeholders and Interests: <ul style="list-style-type: none">• Customers can search all the available cars from the dealer’s website.• The Salesperson helps the customer to choose from an internal inventory of cars when he logs in to the website.• No data is stored.		
Brief Description: This use case describes how a customer can be matched with his/her vehicle present in the internal inventory through the website’s search tab.		
Trigger: The customer providing the details of the vehicle he/she wants. Type: External		
Relationships: Association: Include: Exclude: Generalization:		
Basic Flow of Events: <ol style="list-style-type: none">1. Customer makes an account and logs in.2. Customer gives the vehicle type he/she wants.3. Vehicles present in the internal inventory is matched with the customer’s search criteria.4. Customers book appointment with the dealership if the car is present.		
Sub Flows: S-1: Vehicle is not available in internal inventory. <ul style="list-style-type: none">• Customer can continue searching• Customer can call the dealership and book on-site appointment. S-2: Vehicle is present in the internal inventory. <ul style="list-style-type: none">• Customer books appointment with the car dealership to finalize the car.		
Alternative/Exceptional Flow:		

Activity Diagram for Match Vehicles with Customer (Online)



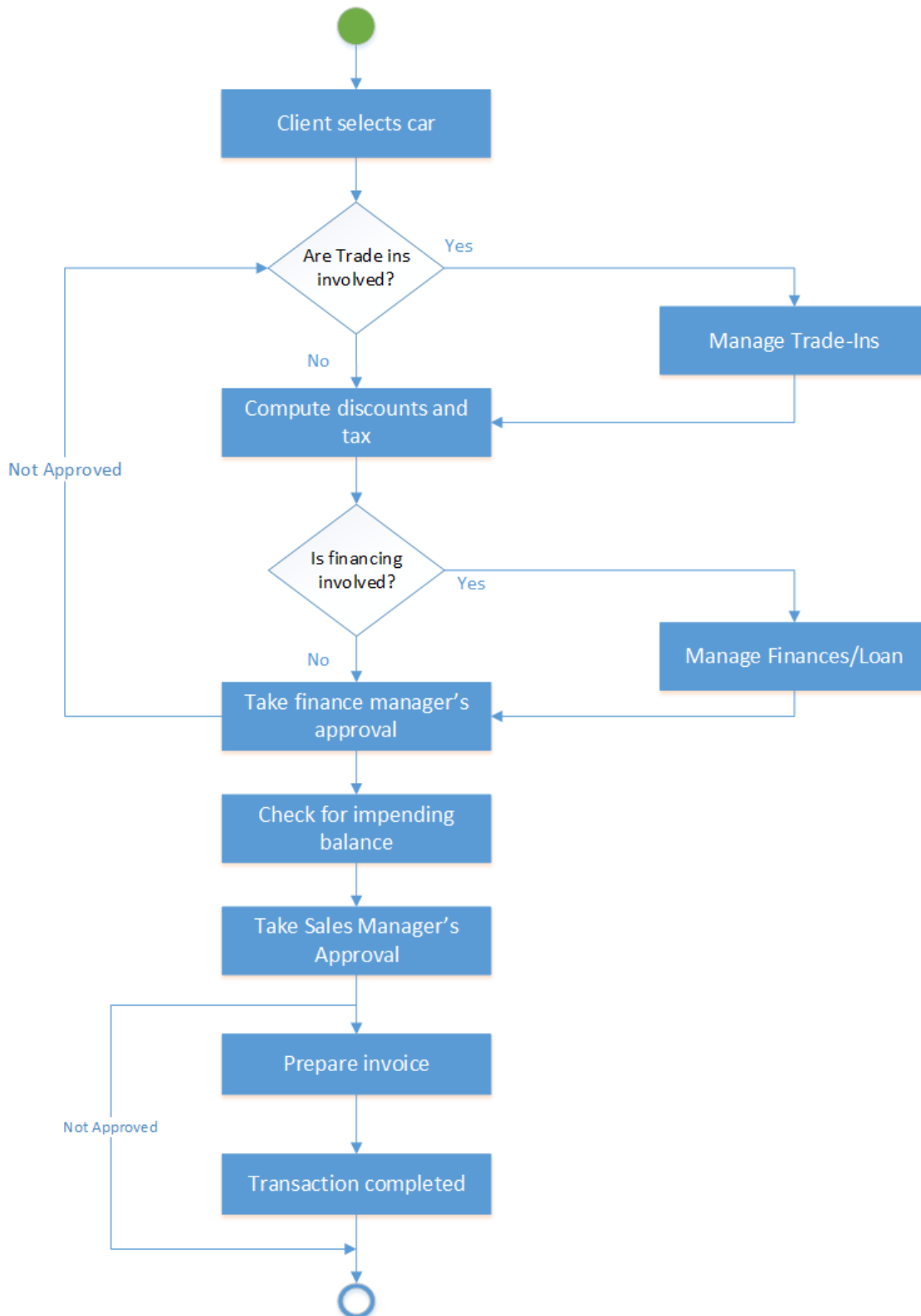
Activity Diagram for Match Vehicles with Customer (On-site)



Use Case 2. Sell Car:

Use Case Name: Sell Car		ID: 02	Importance Level: High
Primary Actor: Salesperson		Use Case Type: Overview, Essential	
Stakeholders and Interests:		Salesperson sells the car and does all the financial process involved. Financial manager gives the final approval to all the sales process. Customer buys the car.	
Brief Description:		This use case describes the process of managing the sales of the car being sold.	
Trigger:	The customer agrees to buy the car.		
Type:	External		
Relationships: 1. Association: Salesperson 2. Include: 3. Extend: 4. Generalization:			
Normal Flow of Events: 1. Salesperson shows the car to customer according to the customer preference. 2. Salesperson tracks the discount and tax associated with the sale. 3. Financial manager approves the financial process. 4. Salesperson prepares the sales invoice. 5. Salesperson sells the car			
Sub Flows:		S-1: - If trade-ins are involved. 1. Salesperson mentions about the trade-ins, if they are involved. S-2: - If financing is involved. 1. Salesperson mentions if any loan or leasing is involved. 2. Financial manager approves the loan or lease.	
Alternative/Exceptional Flow: 1. If the customer disagrees on the pricing of the car.			

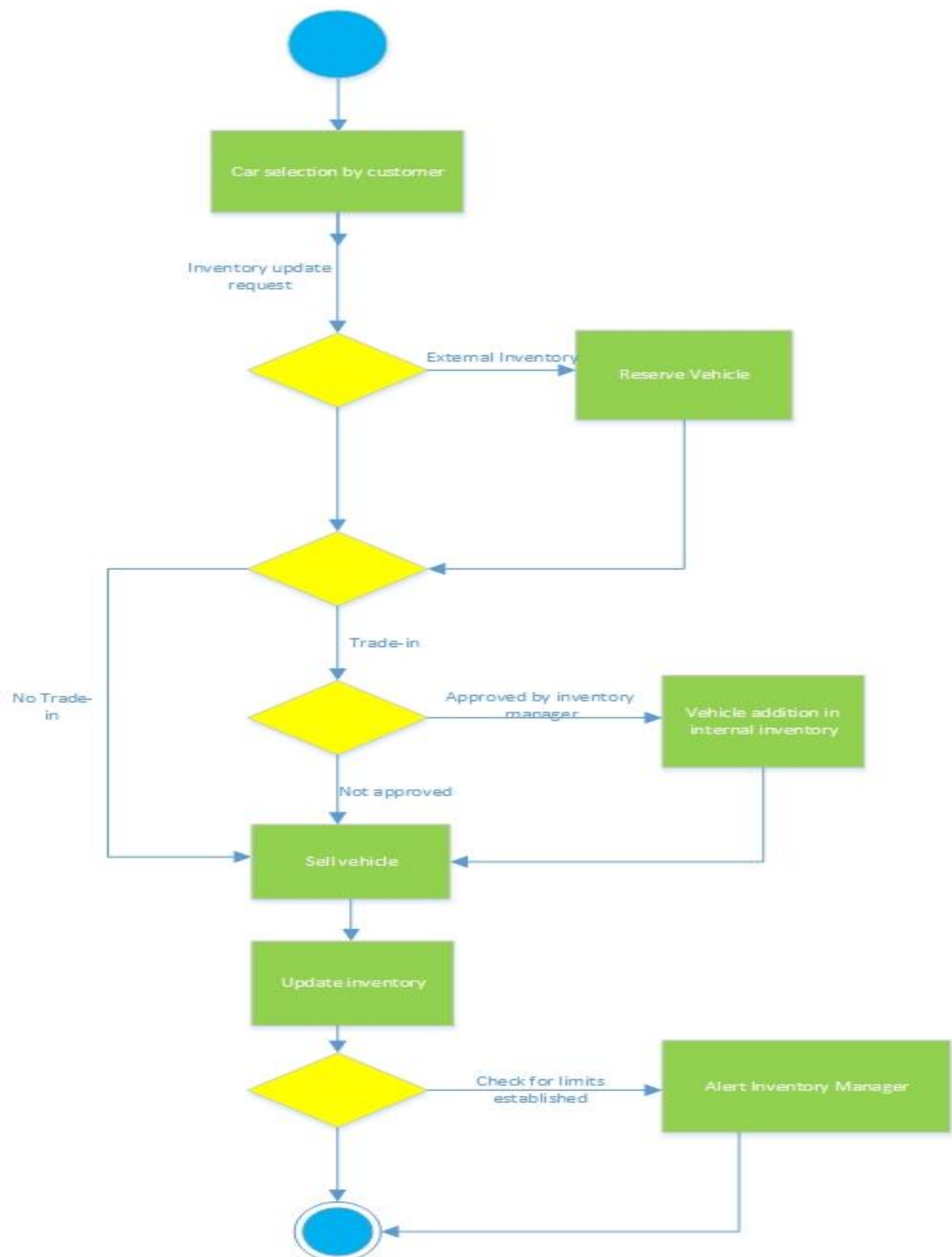
Activity Diagram of Use Case 2:



Use Case 3: Managing Inventory

Use Case Name: Managing Inventory	ID: 3	Importance level: High
Primary Actor: Inventory Manager	Use Case Type: Overview, Essential	
Stakeholders and Interests: The inventory of the company is managed and controlled by the Inventory manager. The inventory manager reviews the orders from the customers and also updates the order accordingly. And, if required the inventory manager also places new orders to the manufacturers accordingly.		
Brief Description: How the inventory is organized and managed in the company is described in this case.		
Trigger: When a sale is initiated by a car dealership or new product is launched and if there is a requirement unavailability. Type: Internal		
Relationships: Association: Inventory manager		
Normal Flow of Events: <div><div>1.</div><div>A sale is initiated by the car dealership, when a customer selects a car.</div></div> <div><div>2.</div><div>Inventory manager raises a request to update the inventory.</div></div> <div><div>3.</div><div>The inventory update request is approved by the Financial Manager.</div></div> <div><div>4.</div><div>A new order is placed to the manufacturers by the Inventory Manager.</div></div> <div><div>5.</div><div>The inventory stock is updated accordingly by the Inventory Manager.</div></div>		
Sub-flows: S1: If there is an unavailability of a car in the internal stock. A request is raised for the inventory by the Sales Manager as per the customer requirement. If there is unavailability of the product in the inventory, the Inventory Manager will raise a request for updating the inventory. S2: Customer selects a trade-in option. Once the trade-in is approved by the Inventory Manager, the vehicle is added to the internal inventory.		
Alternative/Exceptional Flow:		

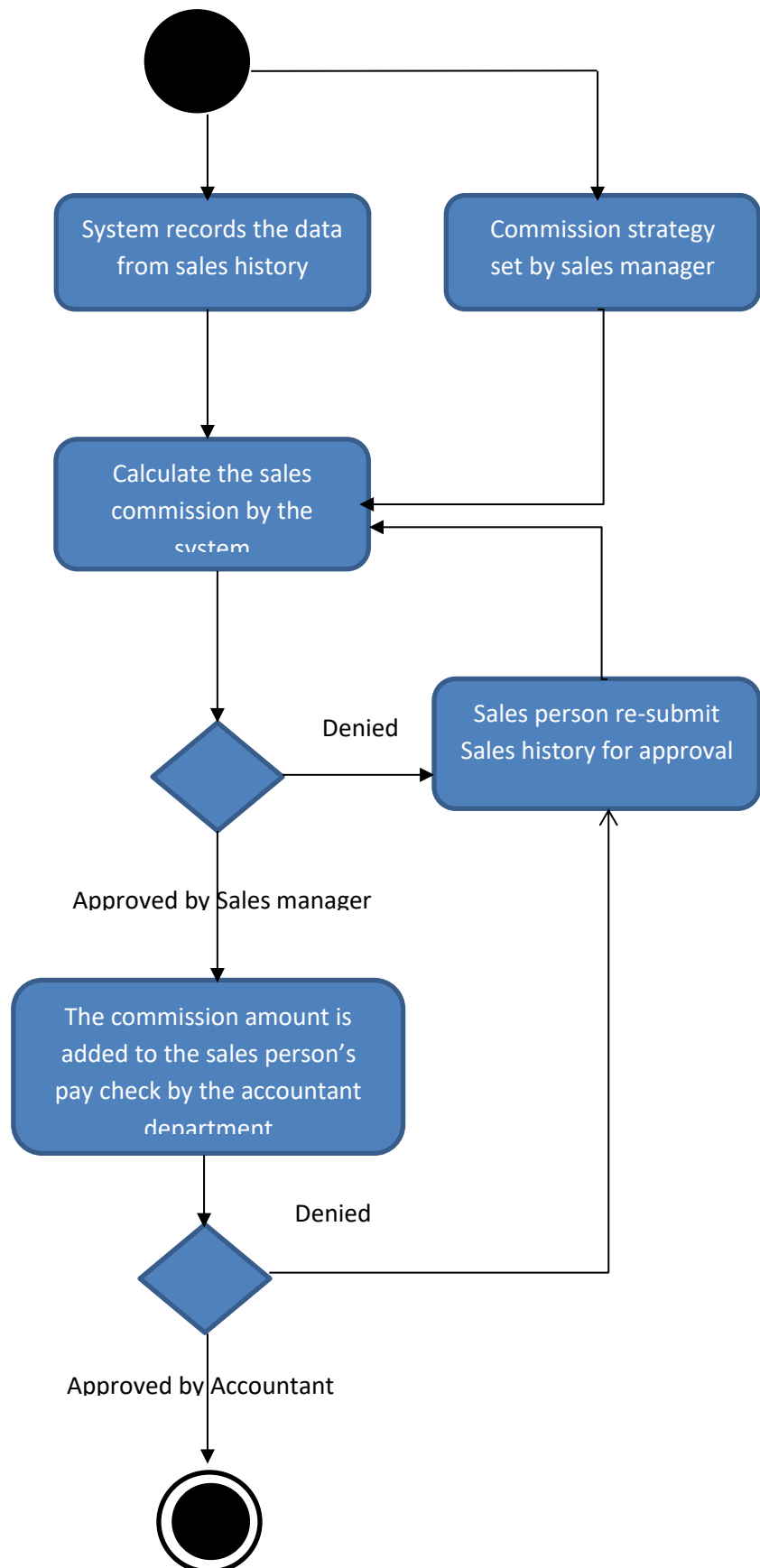
Activity Diagram of Use Case 3



Use case 4: Calculate Salesperson commission

Use Case Name: Calculate Salesperson commission	ID: 04	Importance Level: High
Primary Actor: Sales Manager	Use Case Type: Brief, Essential	
Stakeholders and Interests: <ul style="list-style-type: none">• According to the sales records, the system calculates the weekly commission pay and sends over to the Sales manager for approval.• Sales manager approves individual sales person’s weekly commission.• Commission will be added to the sales person’s final pay check by the accounting department.		
Brief Description: This use case explains the process of calculating a sales person’s commission weekly by the system. The commission is calculated by the system as a percentage of total sales done by a sales person for the week. The commission should be approved by the Sales manager.		
Trigger: The system calculates the total sales commission by each sales person at the end of the week. Type: Temporal		
Relationships: Association: Sales person, Accountant Include: Exclude: Generalization:		
Basic Flow of Events: <ul style="list-style-type: none">5. The system records data from weekly sales history for each sales person6. The system calculates sales person commission based on their sales as a percentage7. Sales manager inspects the sales commission report and approves it.8. Approval is received by the accounting department and added to the pay check.		
Sub Flows: S-1: The sales person commission strategy and the percentage is determined by the sales manager. Any changes in strategy should be authorized by sales manager.		
Alternative/Exceptional Flow: <ul style="list-style-type: none">• If system is down or data is corrupted, the sales person can submit a record of transactions manually and sale manager can add them to the system.		

Activity Diagram



Use Case 5: Identify Promotional Offer

Use Case Name: Identify Promotional Offers	ID: 05 Importance Level: High
Primary Actor: Sales Manager	Use case type: Overview, Essential
Stakeholders and interests: Customers are offered catchy promotional offers to attract them to buy more products and for stock clearance	
Brief description: This use case describes how a promotional offer is applied.	
Trigger: Stock levels in the inventory Type: Internal	
Relationships Association: Financing Manager Include: Finance Department	
Normal Flow of Events: 1. Sales Manager selects the item, promotional offer, promotional price and period. 2. Sales Manager sends the offer to financing manager for approval. 3. When the offer is approved, promotions are applied and is open to the customers. 4. The discounted rates are visible to the customers.	
Sub Flows:	
Alternative Flows: If the offer is not approved by Finance Manager, then the Financing Manager responds to Sales Manager with disapproval. The actual price is visible to the customer when the product is not eligible for the offer.	
Post Condition: The final price is displayed to the customer with or without discounts	

Activity Diagram of Use case 5

