CALIFORNIA STATE UNIVERSITY

FULLERTON

MIHAYLO COLLEGE
OF BUSINESS AND ECONOMICS

ISDS 552

System Analysis & Design

GP1- Car Dealership

By Team S1

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System Request - Car Dealership System Support

Project Sponsor: General Sales Manager, Car Dealership Business

Business Need: The project has been initiated to build a customized system, which could facilitate customers, track sales, manage inventory, determine salesperson commissions, and price internal inventory promotions.

Business Requirements:
- Utilizing online search to pair customers with internal vehicle inventory records.
- Accessing other dealers' and manufacturers' inventory and being able to match customer requirements with internal and external inventory for onsite consulting.
- Ensuring sales manager's approval for all sales, and financing manager's approval for customer financing arrangements.
- Tracking sales tax, discounts and internal inventory changes.
- Determining salesperson's' commission and promotion offers on a weekly basis.
- Keeping accurate and detailed record of all transactions, customer information, and also allow the exporting of data.

Business Value: We anticipate this multi-functional system to provide our sales, management and administrative staff to carry out both their customer and non-customer facing responsibilities with speed, quality and efficiency leading to increased sales, cost savings and greater overall customer satisfaction. In addition, data analytics of detailed records would enable the team to improve business strategies for continued growth.

Special Issues or Constraints: The proposed system will meet conditions that guarantee system is maintainable, works in sync with accounting and analytical reporting systems, and reconcilable with external inventory database systems.

- Maintaining accurate historical transaction records and fitting them into the new system.
- Ensuring exported data is compatible to other systems.
- Attaining external inventory database and integrating them with the new system.
- Procuring necessary hardware for record storage.
- Providing new system training for all management, sales, and administrative staff.

Non-Functional Requirements

Non-Functional Requirements: A Non-Functional Requirement focuses on the operations of a system and not on the specific attributes.

1. **Operational Requirements**

   1.1 The system will be compatible with Windows, Mac, and Mobile operating systems.

   1.2 The system will feed data to one single database, that will produce standardize data, that can be integrated to accounting and analytics software.

   1.3 The system will complete backups on a daily basis - at midnight.

   1.4 The system will capture transactions from any device, or place of origin. And include detailed information that provides an accurate audit trail.

2. **Performance Requirements**

   2.1 The system must be available 24 hours a day, 7 days a week.

   2.2 The commission a salesperson receives is determined by the system; therefore, all sales transactions must be updated and available daily.

   2.3 The system must accommodate 15 simultaneous users at all times.

2.4 The system should generate all kinds of reports i.e. inventory reports, customer data reports, sale transaction reports etc. within few seconds.

2.5 The inventory management system should be highly responsive, with continuous updates in real time, and display results within 1 second.

3. **Security Requirements**

    3.1 Customer data should be accessible to company staff only, with different security clearance levels.

    3.2 Only managers should have access to complete customer data.

    3.3 It must enforce role-based securities. Different departments will have different authority over data i.e. sales department can access only sales data, finance department can access only financial data etc.

    3.4 The process for a department to obtain customer information, without the correct security restrictions, will require an approval. For example, if the sales department need access to financial data, it must be approved first.

4. **Legal requirements**

    4.1 The system should follow all the rules and regulations depending on the state in which the car dealership is established.

    > **4.1.1** Any tax related information should be updated as per the laws of the state.

    > **4.1.2** Customer should meet the legal requirements for purchasing a car.

Functional Requirements

Functional Requirements: A functional requirement focuses on the practical applications of any system and how they collaborate. For example, how the customer finds the vehicle, how much it will cost them, and what are the specifications of the vehicle.

1. **Matching customers with vehicles**

    1.1. Ecommerce - website

    1.1.1 User can look up vehicles using a search function.

    1.1.2 User can also use pop-up in homepage to identify her/his car preference.

    1.1.3 Filter function will be added to the system.

    1.1.4 System navigation results.

    1.1.5 System-saves user data for future analytics.

    1.1.6 Navigates user to contact dealership.

    1.2. In- person via Dealership

    1.2.1 Salesperson collects customer data and enters information into database.

    1.2.2 Creates online customer membership account.

    1.2.3 Searches for car preference in database.

    1.2.4 Customer information and preferences, are stored in database and linked to online account.

    1.2.5 Customer disclosed information such as driver license, social security number, etc. will be collected and saved in database.

    1.2.6 Customization and pre-order of customers car preference will be input in database and sent to manufacturer.

    1.2.7 Salesperson informs customer with details about acquiring car.

2. **Sales**

    2.1 System equipped with invoice and reliability forms templates allowing salesperson to quickly enter data and print out invoice

    2.1.1 Salesperson enters vehicle model and make.

    2.1.2 Customization options are entered (color, tire size, etc.).

    2.1.3 Trade-in car option.

    2.1.3.1 Value entered will be deducted from the total of purchase.

    2.1.4 Optional discounts field are provided.

2.1.5 Taxes and extra costs are automatically set.

2.1.6 Warranty information is entered.

2.1.7 Display of final receipt.

2.2 Financing options

2.2.1 Display of financing options with interest rates.

2.2.2 Customer can pick financing options.

2.2.3 Credit background check and submit customer's profile to financial office.

2.2.4 Final approval made by finance manager.

2.2.5 Value of trade-in car will be deducted from down payment.

3. **Inventory Management**

3.1 Past sales determine the demand of a certain vehicle or its parts and are to be ordered accordingly.

3.2 Sale and Purchase of inventory is to be recorded.

3.3 Vehicle trade-ins are recorded.

3.4 Inventory, through a manufacturer or in-hand, is updated regularly.

4. **Commissions**

4.1 Sale commissions are to be determined weekly.

4.1.1 Commission based on the salesperson's ability to sell.

4.1.2 Fixed Commission, not dependent on sales.

4.2 Commissions generated through the HR payroll office after getting approval from the senior executive or Manager.

4.3 Any additional bonus would be determined by the Company authorities.

5. **Weekly promotional offers**

5.1 Vehicle sale would be determined weekly.

5.2 The Marketing department would go through the numbers.

5.3 Introduce promotional offers according to the demand and supply.

5.4 Offers will be introduced and last for at-least a quarter.