

Automated Car Catalog System for Enhanced Showroom Management

****Project Design Phase****

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Team ID	LTVIP2025TMID31351
Project Name	Automated Car Catalog System for Enhanced Showroom Management
Maximum Marks	4 Marks

Design Strategy

The design phase translates the project's functional and non-functional requirements into a practical and scalable system architecture within the ServiceNow platform. It focuses on defining the **catalog structure, roles, workflows, database schema, and user interaction flow**. The design ensures that each module of the solution works in harmony to deliver a streamlined and automated showroom management experience.

Design Components

◆ Catalog Configuration

- The main catalog is named "**Mahendra**", representing the car inventory system.
- It includes the following three **product categories**:
 - **Sudden** – general or economy cars
 - **XUV** – utility vehicles
 - **Sports** – performance-focused models

Each category holds related car models, helping users browse vehicles efficiently.

◆ Catalog Items

- Sample items include:
 - **Volkswagen Polo**
 - **Mahindra Thar**
 - **Mahindra XUV700**
- Each item is designed to include:
 - **Description** – highlighting specifications like fuel type, seating capacity, features.
 - **Pricing details** – base price and optional packages.
 - **Images** – high-quality visuals to improve user experience in the Service Portal.

The screenshot shows the 'Catalog - Mahendra' form in ServiceNow. The form includes the following fields:

- Title:** Mahendra
- Manager:** [Searchable field]
- Editor:** [User selection field]
- Description:** It is a car showroom.
- Desktop image:** Click to add...
- 'Catalog Home' page:** [Page selection field]
- 'Continue Shopping' page:** [Page selection field]

At the bottom, there are tabs for 'Catalog Items', 'Categories', 'Catalog Portal Pages (1)', and 'Sites'. The 'Catalog Items' tab is active, showing a table with columns: Name, Short description, Active, and Category.

The screenshot shows the 'Catalog - Mahendra' form in ServiceNow, with the 'Categories' tab active. The table displays the following data:


Title	Description	Active	Parent
Sudden		true	(empty)
Sports		true	(empty)
XUV		true	(empty)

At the bottom, there are buttons for 'Activate' and 'Deactivate'.

Item Details
Process Engine
Picture
Pricing
Portal Settings

Add an icon and picture for display

Icon [Click to add...](#)
Picture [\[Update\]](#)[\[Delete\]](#)



Item Details
Process Engine
Picture
Pricing
Portal Settings

Price \$ [✎](#)
Recurring price \$ [✎](#)
Recurring price frequency -- None -- [v](#)

Item Details
Process Engine
Picture
Pricing
Portal Settings

Request method [Request](#) [v](#)
Hide 'Add to Cart' ☒
Hide Quantity ☒
Hide Delivery time ☐
Hide 'Save as Draft' ☐
Hide Attachment ☐
Mandatory Attachment ☐

Catalog Items (3)
Categories (3)
Catalog Portal Pages (1)
Sites

Name [v](#) Search [🔍](#) Actions on selected rows... [New](#)

Catalogs - Mahendra

Name v	Short description	Active	Category
polo	*Volkswagen Polo - Compact Hatchback wit...	true	Sudden
Thar	*Mahindra Thar - 4x4 Off-Road SUV with M...	true	XUV
XUV700	*Mahindra XUV700 - The Ultimate SUV Expe...	true	Sports

System Architecture

Database Table Design

- A custom table is designed for **catalog request fulfillment**, extending the core **Task** table.
- This enables tracking of user requests for car information or services like test drives or quotations.

servicenow
All
Favorites
History
Workspaces
Admin
Table - New Record
Search
Delete
Update
Delete All Records

Table: cars.fulfillment
Label: cars.fulfillment
Name: u_cars_fulfillment
Extends table: Task
Application: Global
Create module: ☒
Create mobile module: ☒
Add module to menu: -- Create new --
New menu name:

Columns
Controls
Application Access

Table Columns
for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Company	Reference	Company	32	false	false
Opened by	Reference	User	32	javascript:gs.getUserID()	false
Made SLA	True/False	(empty)	40	true	false

◆ User Roles and Groups

- **emp1** role is created for **Salespersons**, giving them access to view and process catalog requests.
- The **'showroom'** group includes users responsible for catalog approval, visibility, and fulfillment.

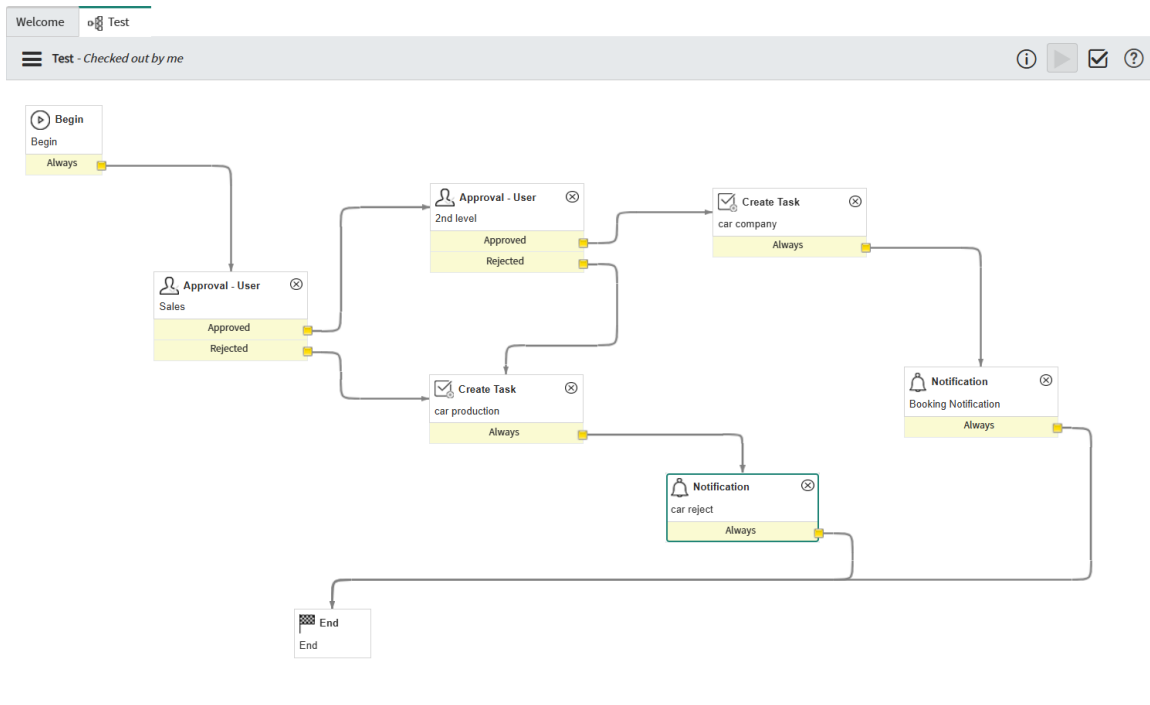
The first screenshot shows the 'User sales person' form. It includes fields for User ID (01), First name (sales person), Last name, Title, Department, Password needs reset, Locked out, Active (checked), Web service access only, and Internal Integration User. It also has fields for Email, Language, Calendar integration, Time zone, Date format, Business phone, Mobile phone, and Photo. Buttons for Update, Set Password, and Delete are at the top right.

The second screenshot shows the 'Role - emp1' form. It includes fields for Name (emp1), Application (Global), and Description. Buttons for Update and Delete are at the bottom left.

The third screenshot shows the 'Group - showroom' form. It includes fields for Name (showroom), Manager (Abraham Lincoln), Group email, Parent, and Description (Cars showroom sales persons). Buttons for Update and Delete are at the bottom left. Below the form is a table titled 'Group Members (3)' with columns for User and Actions on selected rows. The table lists three users: Salesperson, Salesperson2, and Salesperson3.

◆ Workflow Design

- **Approval workflows** are implemented using **ServiceNow Flow Designer**.
- The flow begins when a user submits a request via the portal:
 - The request is assigned to the appropriate approver (e.g., Salesperson).
 - Email notifications are triggered based on approval or rejection.
 - Logs are generated for each decision for auditing.



User Experience Integration

The **Service Portal** acts as the frontend for users:

- Customers can **browse** the catalog by category.
- Submit **requests** for more information or action.
- View the **status** of requests in real time.

The design ensures intuitive navigation, fast response, and role-based views depending on the user's credentials.

Conclusion

This design phase results in a **modular, scalable, and efficient system**, aligning perfectly with showroom operation needs. By integrating ServiceNow's task management, workflow automation, and portal interface, the solution is both technically robust and user-friendly — capable of evolving with future dealership requirements.