

Automated Car Catalog System for Enhanced Showroom Management

1. Introduction

The rapid growth in the automotive industry has increased the demand for efficient digital systems that can streamline operations within car showrooms. Traditional methods like paper-based tracking and manual communication lead to delays and errors. To address this, an automated car catalog system is introduced using the ServiceNow platform.

This project focuses on building a centralized platform to manage car listings, process user requests, handle approvals, and track delivery status using ServiceNow's catalog and workflow features.

2. Problem Statement

Car showrooms often face challenges in managing vehicle inventories, processing customer requests, and coordinating approvals manually. These traditional methods are time-consuming, prone to errors, and lack real-time visibility. Manual handling can lead to inefficient communication, delayed responses, and a poor customer experience.

To address these issues, there is a need for a centralized and automated system that can streamline catalog management, automate workflows, and ensure smooth coordination between departments. The goal is to reduce manual effort, improve accuracy, and enhance operational efficiency within the showroom environment.

3. Objective

- To automate the car request and approval process.
- To provide a user-friendly interface for showroom staff and customers.
- To track delivery and request status in real-time.
- To reduce manual effort and processing time using ServiceNow features.

4. Tools & Technologies Used

- 🔗 ServiceNow - Cloud-based ITSM platform
- 🔗 Service Catalog - For listing cars as catalog items
- 🔗 Workflow Editor - To define approval and fulfillment steps
- 🔗 Tables & Forms - To store and manage request data
- 🔗 User Roles/Groups - To control access
- 🔗 Service Portal - For end-user interface and experience

5. Project Modules

Car Catalog Module

It Maintains a list of car items with details like model, picture, and order type.

Request Management

Users can raise requests for car bookings through the service portal.

Workflow Automation

Requests go through manager approvals and task assignments automatically.

Notifications

Users and approvers receive email alerts at each step.

6. Implementation

6.1 Basic Implementation

- ❑ Create a Catalog Item for car request.
- ❑ Designed a workflow with approval steps.
- ❑ Assign roles to Manager and Delivery Agent.
- ❑ Enable email notifications for request submission and approval.

6.2 Extended Implementation (Detailed Steps)

Step 1: Service Catalog

1.1 Create Catalog

Steps to Create a Catalog:

- Go to All >> Maintain Catalog
- Click on New and name it 'Mahendra'
- Description: It is a car showroom and submit.

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

- Title: Mahendra
- Manager: [Empty]
- Editors: [Empty]
- Application: Global
- Active: ☒
- Enable Wish List: ☐
- Description: It is a car showroom.
- Desktop image: Click to add...
- 'Catalog Home' Page: [Empty]
- 'Continue Shopping' page: [Empty]

1.2 Create Categories

- Go to Mahendra Catalog >> Categories >> New
- Titles: Sudden, XUV, Sports

The screenshot shows the 'Catalog - Mahendra' Categories list. The table displays the following data:

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

At the bottom of the table, there are buttons for 'Activate' and 'Deactivate', and a pagination indicator showing '1 to 3 of 3'.

1.3 Create Catalog Items

Example Cars Added: Polo, Thar, XUV700

Catalog Item 1: Polo

- Navigate to Maintain Items under Service Catalog and open a new record.
- Name: Polo
- Catalog: Mahendra
- Category: Sudden
- Short Description: Volkswagen Polo- Compact Hatchback with Superior Comfort and Efficiency.
- Description: The Volkswagen Polo is a stylish and compact hatchback known for its agile performance, modern design, and premium features. Equipped with a 1.0-liter TSI engine, the Polo offers an impressive balance of power and fuel efficiency, making it an ideal choice for urban driving and longer journeys alike. This model includes advanced safety features, a touchscreen infotainment system, and spacious seating, ensuring comfort and convenience for all passengers. The Polo stands out with its sporty look, LED headlights, and alloy wheels, reflecting Volkswagen's commitment to quality and design.
- Click on Picture and upload an image of the Polo.
- Click on Pricing:
 - Price: 70 and Recurring Price: 90
- Click on Portal Settings:
 - Request
- Click Submit to save the catalog item.

The screenshot shows the ServiceNow 'Catalog Item - Polo' form. The left sidebar contains navigation links under 'maintain', including 'Catalog Definitions - Maintain Cat...', 'Service Catalog', 'Catalog Definitions', 'Maintain Catalogs', 'Maintain Categories', 'Maintain Dynamic Categories', 'Maintain Items', 'Maintain Cart Layouts', 'Service Catalog Wizards', and 'Maintain Wizards'. The main form area has tabs for 'Item Details', 'Process Engine', 'Picture', 'Pricing', and 'Portal Settings'. The 'Item Details' tab is active, showing fields for Name (Polo), Catalog (Mahendra), Category (Sudden), State (None), Checked out (None), and Owner (System Administrator). There are also buttons for 'Update', 'Copy', 'Try It', 'Edit in Catalog Builder', and 'Delete'. Below the form fields, there is a section for 'Add an icon and picture for display' with links for 'Icon Click to add...' and 'Picture [Update][Delete]'. A small image of a silver Volkswagen Polo is displayed below the 'Picture' link.

Catalog Item 2: Thar

- Click on New to add a new item.
- Name: Thar
- Catalog: Mahendra
- Category: XUV
- Short Description: Mahindra Thar - 4x4 Off-Road SUV with Modern Features
- Description: The Mahindra Thar is a rugged, off-road SUV built for adventure and performance. With a 2.0L mStallion petrol engine or a 2.2L mHawk diesel engine, it offers the perfect balance between power and fuel efficiency. The Thar comes with modern features like a touchscreen infotainment system, automatic climate control, and advanced safety features such as ABS and dual airbags. Its 4x4 drive train, high ground clearance, and water-wading capability make it a perfect choice for both city driving and off-road expeditions. Available in multiple trims, the Thar offers the ultimate combination of style, comfort, and functionality.
- Click on Picture and upload an image of the Thar.
- Click on Pricing:
 - Price: 150 and Recurring Price: 170
- Click on Portal Settings:
 - Request Method: Request
- Click Submit.

The screenshot shows the ServiceNow interface for editing a Catalog Item named 'Thar'. The left sidebar contains a 'maintain' menu with options like 'Catalog Definitions - Maintain Cat...', 'Service Catalog', 'Catalog Definitions', 'Maintain Catalogs', 'Maintain Categories', 'Maintain Dynamic Categories', 'Maintain Items', 'Maintain Cart Layouts', 'Service Catalog Wizards', and 'Maintain Wizards'. The main form area has tabs for 'Item Details', 'Process Engine', 'Picture', 'Pricing', and 'Portal Settings'. The 'Item Details' tab is active, showing fields for Name (Thar), Application (Global), Catalogs (Mahendra), Category (XUV), State (None), Checked out (None), and Owner (System Administrator). There are also checkboxes for 'Active' and a dropdown for 'Fulfillment automation level' (Unspecified). Below the form, there is a section for 'Add an icon and picture for display' with a button 'Click to add...' and a 'Picture' field with '[Update][Delete]' links. A small image of a Mahindra Thar SUV is displayed at the bottom.

Catalog Item 3: XUV700

- Name: **XUV700**
- Catalog: Mahendra
- Category: Sports
- Short Description: Mahindra XUV700 - The Ultimate SUV Experience
- Description: The Mahindra XUV700 is a premium, high-performance SUV known for its advanced technology, robust build, and superior comfort. Featuring a powerful turbo-petrol engine, it delivers an exhilarating driving experience. With futuristic design elements, a spacious interior, and cutting-edge safety features like ADAS, the XUV700 delivers an extraordinary ride. Key highlights include a 10.25-inch digital cockpit, panoramic sunroof, 7-seater option, and superior connectivity with Alexa built-in. Whether it is for city driving or off-road adventures, the XUV700 redefines the SUV experience.
- Click on Picture and upload an image of the XUV700.
- Click on Pricing:
 - Price: 200
 - Recurring Price: 211
- Click on Portal Settings:
 - Request Method: Request
- Click Submit.

Catalog Item
XUV700

Update

Copy

Try It

Edit in Catalog Build

Name

XUV700

Application

Global

Catalogs

Mahendra

Active

☒

Category

Sports

Fulfillment automa-
tion level

Unspecified

State

-- None --

Checked out

-- None --

Owner

System Administrator

Item Details

Process Engine

Picture

Pricing

Portal Settings

Add an icon and picture for display

Icon [Click to add...](#)

Picture [\[Update\]](#)[\[Delete\]](#)



Step 2: Create Users and Roles

- Navigate to roles and create roles
- Navigate to Users (under System Security).
- Create a new user with details:
 - User ID: 01, 02, 03, 04
 - Names: Sales Person, Sales person 2, Sales person three and Supervisor.
 - Assign Role: emp1, emp2, emp3 and Assist.
- Click Submit to create the role.

User ID	Name	Email	Active	Created
<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>
04	Supervisor		true	2025-07-24 04:17:58
03	Sales Person 3		true	2025-07-24 03:36:30
02	Sales person 2		true	2025-07-24 03:36:14
01	sales person		true	2025-07-24 03:29:06

Step 3: Create Group

- Navigate to Groups (under System Security).
- Click New and enter:
 - Group Name: Showroom
 - Group Manager: Abraham Lincoln
- Click Submit to save the group.
- Open the created group and add members:
 - Salesperson, Salesperson 2, and Salesperson 3
- Click Update to save the changes.

dev249481.service-now.com/now/nav/ui/classic/params/target/sys_user_group.do%3Fsys_id%3D7ec7cd3783766210715ba230ceaad388%26sysparm_record_target%3Ds...

Now Creden...

W All Favorites History Workspaces Admin Group - Showroom ☆ Search

< Group Showroom

Name Showroom

Manager Abraham Lincoln

Description Cars showroom sales person

Group email

Parent

Update Delete

Roles Group Members (3) Groups

User Search

Group = Showroom

User

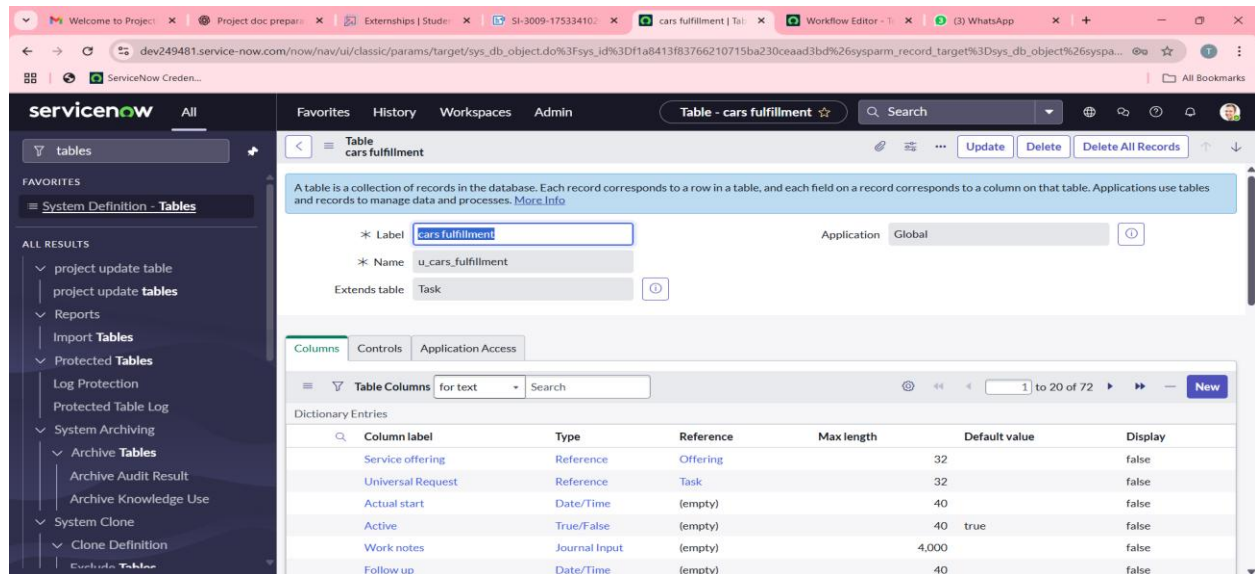
sales person

Sales Person 3

Sales person 2

Step 5: Create Custom Table

- Navigate to System Definition > Tables
- create a new table and give the name as cars fulfillment.
- Give the extended table as a Task table and save



Step 6: Create Workflow

- Create a workflow called "Test Project"
- Add core activities such as user approval, task creation, and notifications based on the project requirements, as guided in the project.

Workflow Implementation Steps

1. Open Workflow Editor:
 - search Workflow Editor.
 - Click on New Workflow.
 - Create new record name as a test project
2. Initial Setup:
 - You will see Begin and End stages on the canvas.

Approval Steps:

3. Drag 'Approval - User' from Core:
 - ☐ Name: Sales
 - ☐ User: Sales Person
4. Add Second Level Approval:
 - ☐ Name: 2nd Level
 - ☐ User: Supervisor

Task Creation Steps:

5. Create Task: Car Company
 - ☐ Task Name: Car Company
 - ☐ Table: Car Fulfillment
 - ☐ Priority: 1
 - ☐ Task Values:
 - ☐ car status = Ready to Pickup
 - ☐ State = Closed Complete
6. Create Task: Car Production
 - ☐ Task Name: Car Production
 - ☐ Table: Car Fulfillment
 - ☐ Priority: 1
 - ☐ Task Values:
 - ☐ car status = Deployment Failed
 - ☐ State = Closed Incomplete

Notification Configuration:

7. Notification: Booking Notification
 - ☐ Name: Booking Notification
 - ☐ To User: Abraham Lincoln
 - ☐ Group: Showroom
 - ☐ Subject: Car Showroom
 - ☐ Message:

// code

```
<html>
<body style="font-family: Arial, sans-serif;">
<div style="background-image:
url('${C:\\Users\\saipr\\OneDrive\\Pictures\\Screenshots\\Screenshot 2024-10-28
125727.png}'); background-size: contain; background-repeat: no-repeat; background-
position: center; padding: 20px; text-align: center;">
  <div style="background: rgba(255, 255, 255, 0.8); padding: 20px; border-radius: 8px;">
    <h2 style="color: #333;">Car Request Notification</h2>
    <p style="color: #555;">Hello, your request for a car model has been submitted and
```

approved.</p>

<p>Requested Car: \${requested_for}</p>
<p>Status: \${approval}</p>

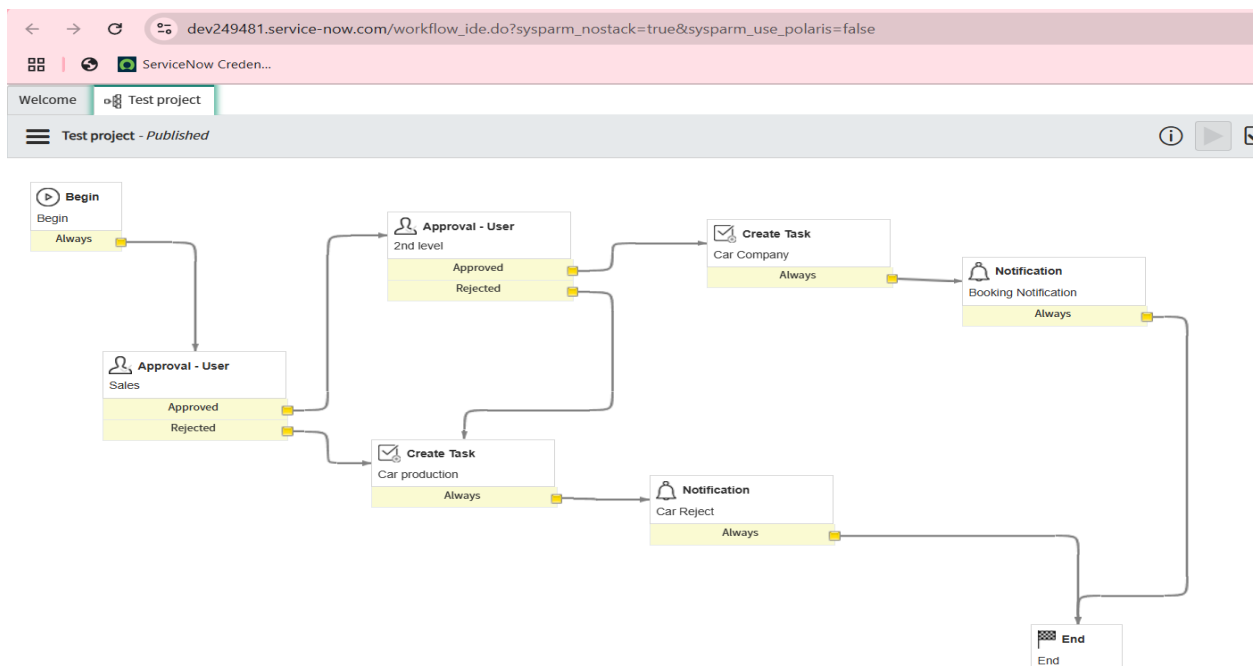
<p style="color: #333;"> Thank you for choosing Mahendra!</p>

</div>
</div>
</body>
</html>

8. Notification: Car Reject

- ☐ Name: Car Reject
- ☐ To User: Abraham Lincoln
- ☐ Group: Showroom
- ☐ Subject: Car Showroom
- ☐ Message: Car booking approval is rejected.

9. End Workflow: Connect all flow lines to End to complete the workflow setup as guided in the project

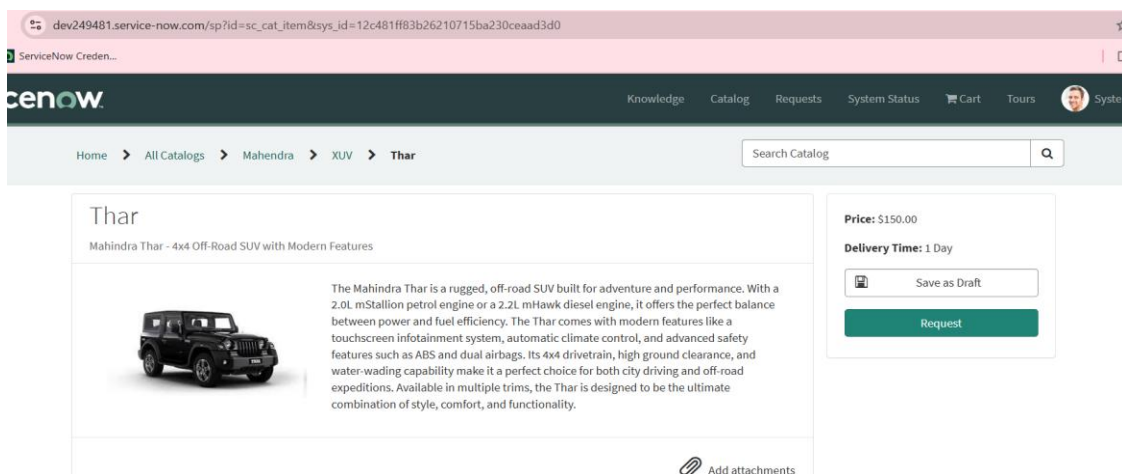


Workflow Overview:

- Triggered By: Catalog Item Request submission from the Service Portal.
- Approval Step: Routed to Manager for approval based on user role.
- Task Creation: On approval, the system generates a task for the concerned team.
- Notification: Email notifications sent for approval, rejection, and task assignment.
- Completion: Task closure updates the request status to "Closed Complete."

Step 6: Service Portal Testing

- Log in as an end-user
- Open Service Portal --> Submit a car request
- Log in as manager --> Approve the request
- Log in as delivery agent --> Mark the task complete
- Confirm that notification and workflow work correctly



7. Testing and Validation

Objective: To verify that catalog items, user roles, group assignments, workflows, tasks, and notifications (including emails) are working as expected.

Step-by-Step Testing Process

1. Navigate to the Service Portal
 - Click on the ServiceNow logo --> Search and open Service Portal.
2. Submit a Request for a Catalog Item
 - From the portal homepage, search for the catalog item (e.g., Volkswagen Polo).
 - Click Order Now or Request.

- ☐ Fill in the required fields and click Submit.
- 3. Verify Record Creation
 - ☐ Go to All --> Requested Items.
 - ☐ Check whether a new request record has been created successfully.
- 4. Check Workflow Execution
 - ☐ Navigate to Workflow Contexts.
 - ☐ Open the context related to your request.
 - ☐ Ensure that the workflow executes all stages such as Approvals, Tasks, and Notifications.
- 5. Approval User Testing
 - ☐ Log in as Salesperson (the user created earlier).
 - ☐ Go to My Approvals --> Choose to Approve or Reject the request.
- 6. Check Task Creation
 - ☐ Create Task on the Car Fulfillment table.
 - ☐ Confirm that the system creates and assigns the tasks Car Production and Car Company properly.
- 7. Check Notification Triggering
 - ☐ Go to System Logs --> Emails or Notification Email Logs.
 - ☐ Verify that appropriate emails were triggered:
 - Booking Notification when the request is approved.
 - Reject Notification when the car request is rejected.
- 8. Check Email Delivery
 - ☐ Open the Email Logs (System Logs --> Emails).
 - ☐ Ensure that the email with:
 - Subject: Car Showroom with approval message arrives when approved.
 - Subject: Car Showroom with rejection message arrives when rejected.
 - ☐ Confirm that the To User (e.g., Abraham Lincoln) receives the mail.
- 9. Validate Field Updates
 - ☐ Open the related task records.
 - ☐ Confirm fields such as:
 - Car Status is- Ready to Pickup or Deployment Failed.
 - State is set to Closed Complete or Closed Incomplete.
- 10. Negative Testing
 - ☐ Reject a request and confirm that the system triggers the Car Reject Notification properly. Confirm the rejection email appears in logs.
- 11. Roles and Group Access Validation
 - ☐ Log in as different users (e.g., Salesperson, Supervisor).
 - ☐ Validate their access to requests, approvals, and tasks based on their roles/groups.

ServiceNow interface showing an email notification titled "Car Request Notification". The notification content is:

Hello, your request for a car model has been submitted and approved.

Requested Car: System Administrator

Status: Requested

Thank you for choosing Mahendra!

The interface includes a left sidebar with navigation options like "email", "System Diagnostics", "System Logs", "Emails", "Bounce Email Addresses", "System Mailboxes", "Administration", "Email Accounts", "Email Properties", "Email Account Groups", "Email Diagnostics", "Email Address Filters", "Bounce Email Address Status", and "System Notification". The top navigation bar shows "Email - Car Showroom".

ServiceNow interface showing an email notification titled "Preview Email". The notification content is:

car booking approval is rejected.

Ref:MSG2285179_MF0hQg26BAIB1dAFglZU

The interface includes a left sidebar with navigation options like "Filter", "Self-Service", "Business Applications", "Dashboards", "Service Catalog", "Employee Center", "Knowledge", "Visual Task Boards", "Incidents", "Watched Incidents", "My Requests", "Requested Items", "Watched Requested Items", "My Connected Apps", "My Profile", "My Tagged Documents", and "My Tags". The top navigation bar shows "Email - Car showroom".

7. Learning Outcomes

- ✓ Gained hands on experience with ServiceNow low code environment.
- ✓ Learned about catalog management and request handling.
- ✓ Understand workflow building and automation.
- ✓ Experienced real-time problem solving and platform troubleshooting.
- ✓ Strengthened understanding of cloud-based business solutions.

8. Real World Applications

- 👉 **Car Showrooms** - To automate bookings and vehicle availability.
- 👉 **Vehicle Rental Companies** - To manage car requests and delivery.
- 👉 **E-commerce for Automobiles** - To offer online car catalogs.
- 👉 **Corporate Fleet Management** For tracking and approval of company vehicles.

9. Future Enhancements

- 👉 Add real-time car availability based on inventory.
- 👉 Integrate Google Maps for tracking deliveries.
- 👉 SMS or WhatsApp notification feature.
- 👉 Add digital payment gateway.
- 👉 we can enhance Dashboard for admin analytics and reporting.

10. Conclusion

The “Automated Car Catalog System for Enhanced Showroom Management” project simplifies the process of handling car requests, managing approvals, and tracking deliveries in a showroom setup. With the help of **ServiceNow**, we are able to create a smooth and professional platform for internal operations and external customer satisfaction.

This project demonstrates how digital transformation tools can replace traditional manual processes. From catalog creation to workflow automation and task assignments, the implementation addresses real-world business needs.