Tittle: Automated Car Catalog System For Enhanced Showroom Management

INTRODUCTION

**Project Overview**: An automated car catalog system for enhanced showroom management streamlines operations by digitizing vehicle information, enabling efficient inventory management, and improving customer interactions. This system aims to reduce manual work, enhance accuracy, and provide a better overall experience for both showroom staff and customers.

Purpose:

An automated car catalog system enhances showroom management by streamlining information access, improving customer experience, and boosting sales efficiency. It allows for centralized vehicle information management, accurate inventory tracking, and personalized customer interactions, ultimately leading to better operational efficiency and increased sales.

**IDEATION PHASE** 

**Problem Statement**: Car showrooms and dealerships often face challenges in managing and streamlining their catalog of cars, including various models and categories. The manual processes involved in handling customer requests, approvals, and task assignments can lead to inefficiencies, delays, and potential errors. This can negatively impact customer satisfaction and operational efficiency.

**OBJECTIVE**:

The primary objective of an automated car catalog system in a showroom is to streamline operations, enhance customer experience, and improve overall management efficiency. This involves automating tasks like inventory management, providing detailed vehicle information,

facilitating sales and test drive bookings, and generating reports, ultimately leading to better customer service and increased sales.

## REQUIREMENT ANALYSIS

## **SOLUTION REQUIREMENT:**

DATE	
TEAM ID	LTVIP2025TMID30843
PROJECT NAME	Automated Car Catalog System For Enhanced Showroom Management

## **Functional Requirements:**

## Following are the functional Requirements:

FR NO	Functional Requirements	Sub Requirements
FR-1	Service Catalog	Create Catalog Create Categories
FR-2	User Creation	Create a user
FR-3	Role Creation	Create roles
FR-4	Group Creation	Create group
FR-5	Table Creation	Create table

FR-6	Workflow	Workflow Assignment To Mahendra Service Catalog
FR-7	Service portal	Searching Created catalog Are Available in service portal
FR-8	Result	Check result

### **NON-Functional Requirements:**

### **Following are the functional Requirements:**

FR NO.	Non-functional Requirement	Discription
NFR-1	Usability	A Car catalog system integrated with ServiceNow can significantly enhance showroom management by improving data accuracy, streamlining workflows, and boosting customer experience. By leveraging ServiceNow's capabilities, dealerships can create a centralized, automated system for managing vehicle information, pricing, and availability, leading to more efficient sales processes and improved customer satisfaction.
NFR-2	Security	To Secure an automated car catalog system within ServiceNow for enhanced showroom management, focus on access control, data encryption, and secure development practices. Implement role-based access control (RBAC), utilize encryption for sensitive data at rest and in transit, and ensure the system is built

		with secure coding principles.
NFR-3	Reliability	The Automated Car Catalog System within ServiceNow, when properly implemented and managed, can significantly enhance showroom operations and improve overall reliability. Key aspects contributing to its reliability include robust data management, streamlined workflows, and integration with other ServiceNow modules.
NFR-4	Performance	Automated car catalogs and enhanced showroom management systems significantly improve efficiency and customer experience in the automotive industry.
NFR-5	Availability	While a dedicated "Automated Car Catalog System" within ServiceNow isn't explicitly named, the platform offers robust capabilities for managing and automating car sales processes, including catalog management, through its Service Catalog and other automation features. This can be leveraged to build a custom system tailored to the automotive industry.
NFR-6	Scalability	A Scalable automated car catalog system within ServiceNow can significantly enhance showroom management by streamlining operations and improving customer experience. This system can be scaled by leveraging ServiceNow's capabilities for workflow automation, service catalog management, and integration with other systems.

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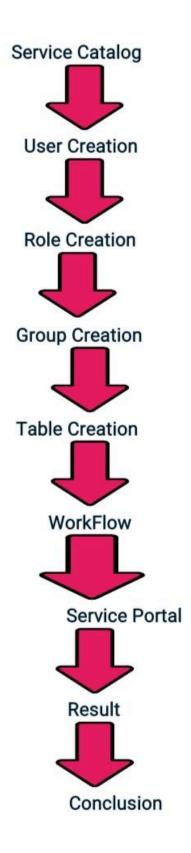
## **Data Flow Diagram:**

A Data Flow Diagram (DFD) for an Automated Car Catalog System within ServiceNow would visually

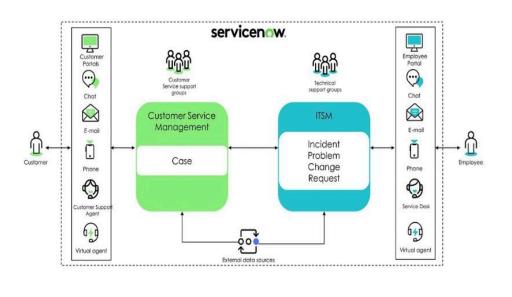
represent the flow of information as customers browse, select, and request cars, and how that data interacts with the showroom management system. This diagram would depict external entities like customers and the system itself, along with processes like browsing the catalog, selecting vehicles, managing inventory, and handling requests. Data stores, such as the car catalog and customer information, would also be included.

#### Uses:

- Requesting services or products.
- automate and manage service requests, streamlining the delivery process and improving efficiency.
- to make sure that services that need a high level of care get it every time.



# **Technology Stack:**



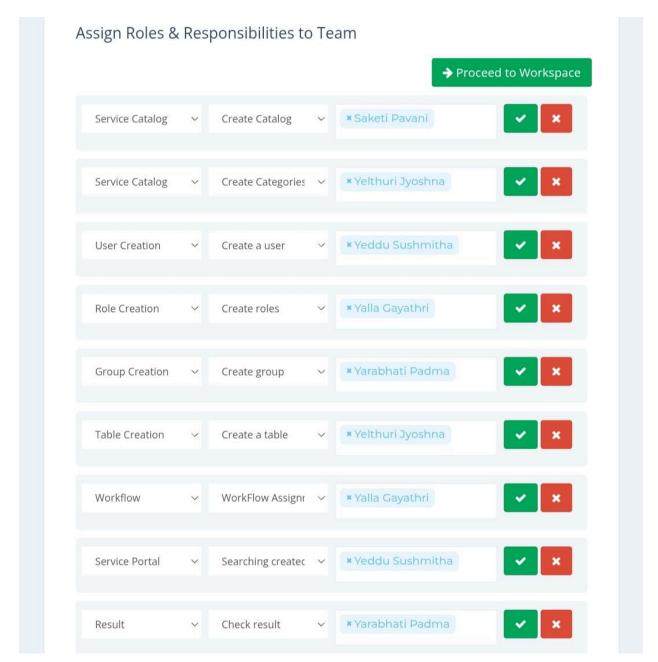
# **Project Design:**

## **Proposed solution:**

Project team Shall fill the following information in the proposed solution template

S NO	Parameter	Description
1	Problem Statement	Traditional car showrooms often rely on manual processes or outdated systems for cataloging vehicles, managing inventory, and engaging with potential customers. These systems are time-consuming, error-prone, and inefficient in handling dynamic data such as vehicle specifications, availability, pricing updates, and customer preferences.
2	Idea	An Automated Car Catalog System for Enhanced Showroom Management is a smart solution aimed at transforming how car dealerships manage, present, and sell vehicles. Here's an overview of the idea, covering its purpose, features, benefits, and potential tech stack.
3	Novelty	Here's a detailed explanation of the novelty in an Automated Car Catalog System for Enhanced Showroom Management — focusing on what makes it innovative and distinct from traditional systems:
4	Social impact	An Automated Car Catalog System for enhanced

		showroom management has a positive social impact by improving the customer experience, increasing transparency, and potentially leading to more informed purchasing decisions. It can also streamline the sales process, making it more efficient for both dealerships and customers.
5	Business Model	A business model for an automated car catalog system in a showroom focuses on using technology to streamline the car buying process, improve inventory management, and enhance customer experience. This model leverages a digital catalog to provide detailed vehicle information, facilitate online browsing, and enable features like test drive scheduling and online payments.
6	Scalability of the solution	A Scalable automated car catalog system for enhanced showroom management allows for handling increased data volume and user load without performance degradation. This is achieved through techniques like load balancing, caching, and modular design, enabling the system to grow alongside the business and adapt to changing demands.



**Automated Car Catalog System For Enhanced Showroom Management** 

**MILESTONE 1:** Service Catalog

**Activity 1: Create Catalog** 

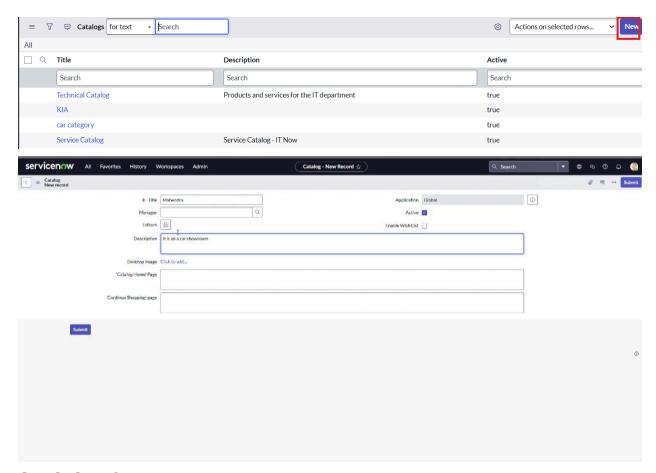
#### **Purpose:**

A product catalog or a library catalog, is to organize and present information in a structured way to facilitate easy access and understanding. In essence, it serves as a guide or directory that enables users to quickly find what they are looking for.

#### **USE:**

the context of creating a catalog, "about" can refer to the catalog's content, purpose, or the specific information it contains. For example, a catalog might be "about" a company's product line, a library's collection, or a data governance framework. It can also refer to the process of describing or outlining the details within the catalog.

- 1)Open service now.
- 2)Click on All >> search for Maintain Catalog.
- 3) Click on Maintain Catalog under Catalog Definition.
- 4)After opening Maintain Catalog Click on new.
- 5) Give Catalog Name as "Mahendra".
- 6)Application should be Global.
- 7) Give description as it is a car showroom.
- 8)Click on Submit.



**Activity 2:** Create Catagories

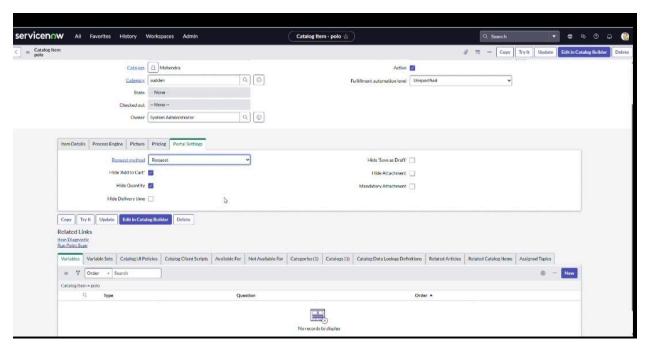
### Purpose:

organize and group related items, concepts, or data based on shared characteristics, making it easier to understand, manage, and analyze information. Categories enable efficient information retrieval, improved user experience, and streamlined navigation.

#### USE:

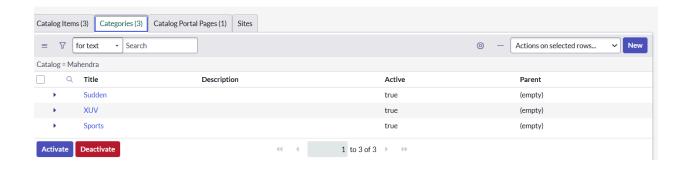
group and organize emails, calendar events, tasks, and contacts, allowing for easier filtering and management. To create a new category in Outlook, you can right-click on an item, select "Categorize," then "New Category," and give it a name and color. You can also access the category list and create a new category there.

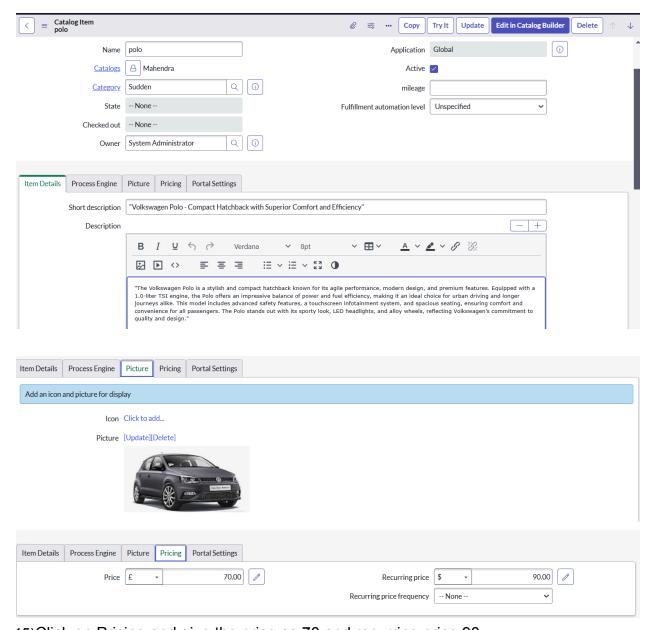
- 1)After submitting you can see the catalog mahendra in the list.
- 2)Open Mahendra Catalog Scroll down.
- 3)Click Categories And Click on New.



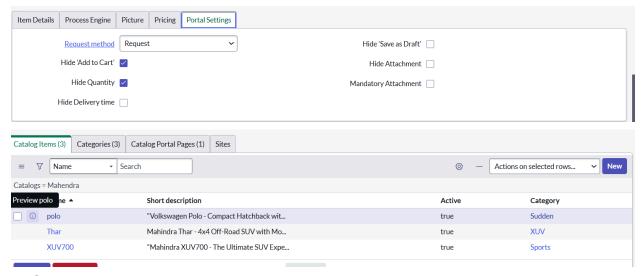
- 4)Give Title as Sudden.
- 5)Search and add catalog as Mahendra.
- 6)Click on submit.
- 7)Create two more categories as XUV and Sports.
- 8) Click on Catalog Items and Click on new.
- 9) Give it a name as polo.
- 10)Select catalog as Mahendra.

- 11)Select category as Sudden.
- 12)Short description as Volkswagen Polo Compact Hatchback with Superior Comfort and Efficiency.
- 13) Give 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.
- 14)Click on Picture and add image.



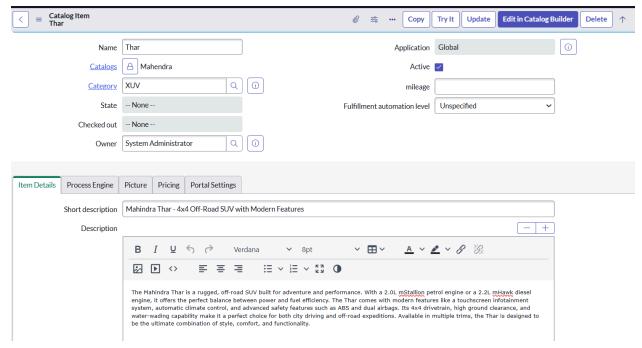


- 15)Click on Pricing and give the price as 70 and recurring price 90.
- 16)Click on Portal setting and Select request method as Request.
- 17)Click on Submit.
- 18)Click on new and create one more catalog.

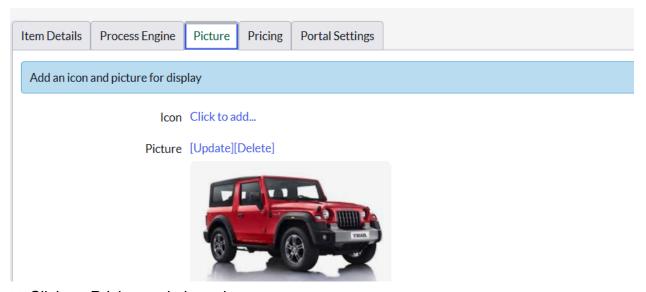


19) Give it a name as Thar.

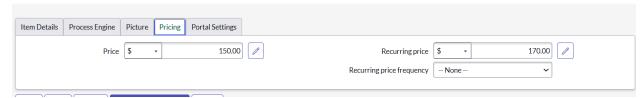
- 20) Select catalog as Mahendra.
- 21)Select category as XUV.
- 22) Short description Mahindra Thar 4x4 Off-Road SUV with Modern Features
- 23)Description The Mahindra Thar is a rugged, off-road SUV built for adventure and performance. With a 2.0L mStallion petrol engine or a 2.2L mHawk diesel engine, 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 drivetrain, 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 is designed to be the ultimate combination of style, comfort, and functionality.



32)Click on Picture and add image.



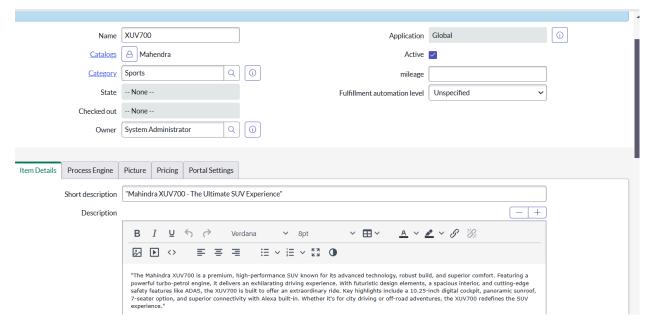
- 33)Click on Pricing and give prices.
- 34) price 150 to recurring price 170.



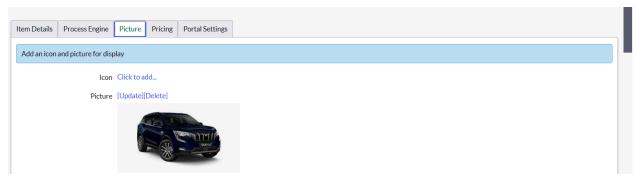
35)Click on Portal settings and request method as Request.



- 36) Give it a name as XUV700.
- 37)Select catalog as Mahendra
- 38) Select category as Sports
- 39) Short description Mahindra XUV700 The Ultimate SUV Experience.
- 40)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 is built to offer 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's for city driving or off-road adventures, the XUV700 redefines the SUV experience.



41)Click on Picture and add image of car.



42) Click on Pricing give price 200 to recurring price 211



43) Click on Portal Setting and give the Request method as Request.



## **MILESTONE 2:** User Creation

## **Activity 1: Create User**

#### **PURPOSE:**

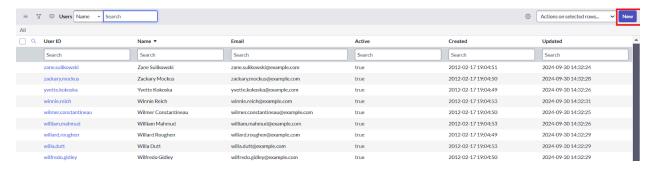
Create User Statement is to establish a new user account within a database system, enabling access and defining privileges. This allows users to connect to the database, authenticate, and interact with database objects based on the granted permissions.

#### **USE:**

statement in various ways, depending on the specific database system and the context of the user creation. It's often used to provide additional information or context about the user being created.

#### STEPS:

- 44)Open service now.
- 45) Click on All >> search for Users.
- 46)Click on Users>> under System Security.
- 47) Click on new, give userId as 01 and name as sales person and add the role emp1.
- 48)Save and Submit.



## **MILESTONE 3:**Role Creation

## **Activity 1: Create Role**

#### **PURPOSE:**

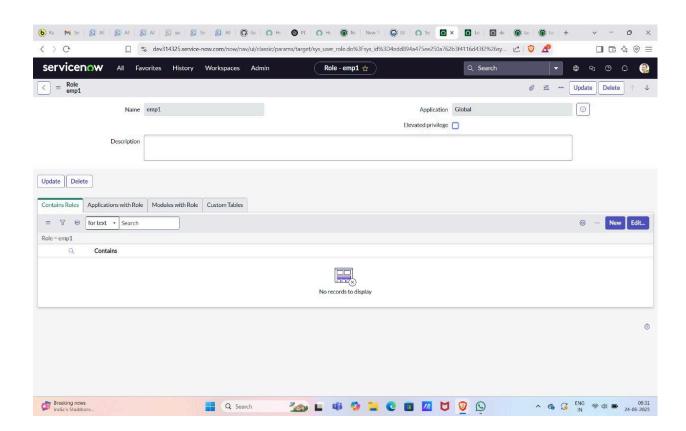
Create Role Statement is to create a new role in a database system. Roles are named collections of privileges that can be granted to users or other roles, simplifying the management of database access permissions. Oracle Help Center

#### **USE:**

learning about the statement itself, its syntax, purpose, or how it's used in specific database systems.

#### STEPS:

- 49)Click on the Servicenow logo and click on all and search for roles.
- 50) Click on Roles >> Under system security.
- 51) Click on new and give the name as emp1.



## **MILESTONE 4:** Group Creation

## **ACTIVITY 1: Create Group**

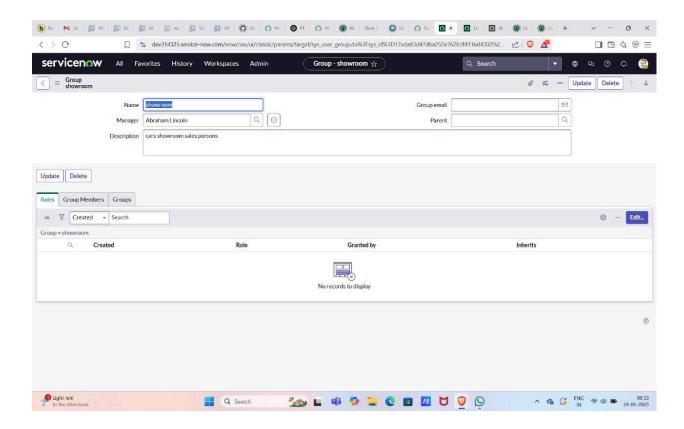
#### PURPOSE:

The primary purpose of creating a group is to bring individuals together to achieve a common goal, share ideas, provide support, or foster a sense of belonging. Groups can be formed for various reasons, such as social interaction, skill development, task completion, or simply for companionship.

#### USE:

providing a description or summary of the group's purpose, its members, or the content it will feature.

- 1)Click on All>>Search for groups.
- 2)Click on groups>>under Security System.
- 3) Click on new and give the group's name as showroom.
- 4) Give the group manager as Abraham lincoln. And Submit.
- 5)Add group members as Salesperson, Salesperson2 and 3.And update.



## **MILESTONE 5: Table Creation**

### **ACTIVITY 1: Create A Table**

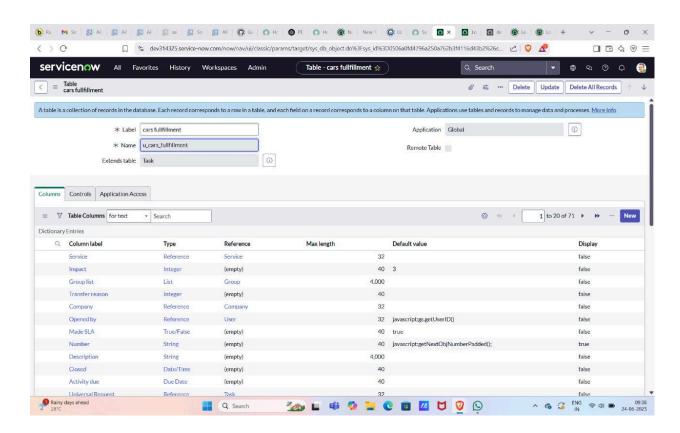
#### **PURPOSE:**

Organize data in a structured, easily readable format, allowing for efficient data management and analysis. Tables are useful for presenting numerical data, comparisons, and relationships between different pieces of information.

#### **USE:**

Create a new table in a database. It defines the table's structure, including column names, data types, and constraints. This statement essentially sets up the blueprint for storing data in a structured format.

- 1)Click on All>>Search for Tables.
- 2)Click on Tables>>under System definition.
- 3) Click on the new give name as cars fulfillment.
- 4) Give extended table as Task table.
- 5)Save and Submit.



## **MILESTONE 6: WORK FLOW**

**ACTIVITY 1: workflow Assignment To Mahendra Service Catalog** 

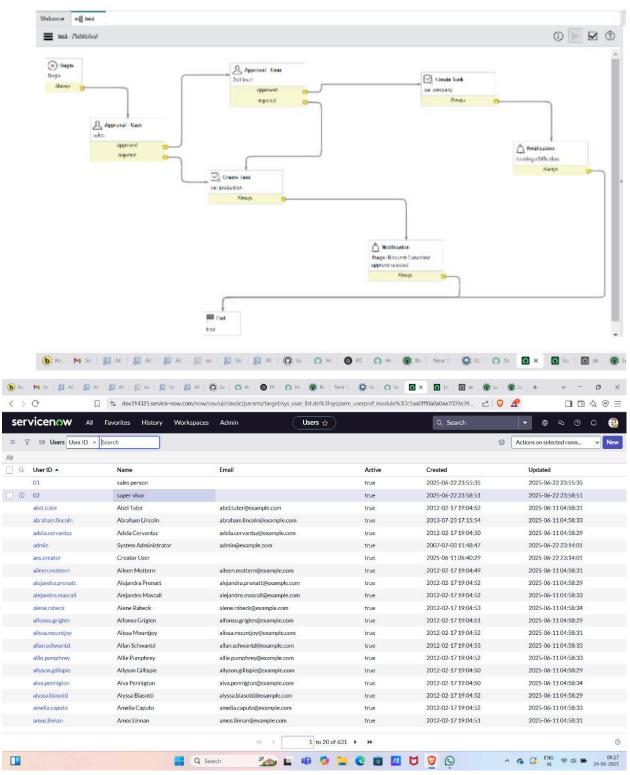
#### **PURPOSE:**

workflow assignment to a catalog item means that a predefined automated process (the workflow) is triggered when a user requests that specific item from the catalog. This automates tasks related to fulfilling the service request, ensuring consistency and efficiency.

#### **USE:**

Define the context or purpose of the workflow, often specifying which service or catalog item it's related to. For example, a workflow might be "About resetting a user's password" or "About updating a user's profile". The "about" field helps users understand the workflow's function before initiating it.

- 1)Navigate to Homepage.
- 2)Click on all search Workflow Editor.
- 3)Click on New Workflow.
- 4)Under the name field search for Test Select that record.
- 5)After creating workflow you can see begin and end.
- 6)Drag the approval user from core and give name as sales.
- 7) Give the user as a sales person.

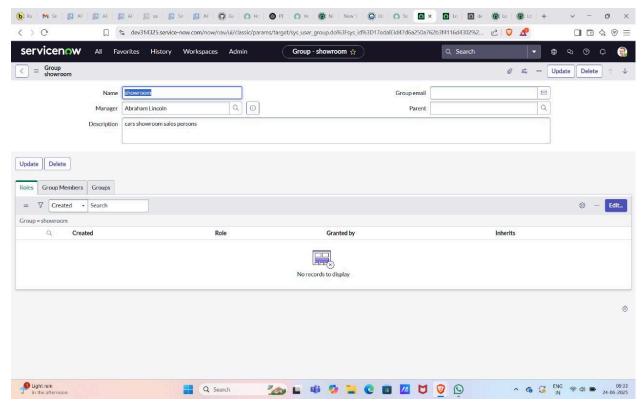


- 8)Drag the approval user from core and give name 2nd level.
- 9)Add a user as supervisor.

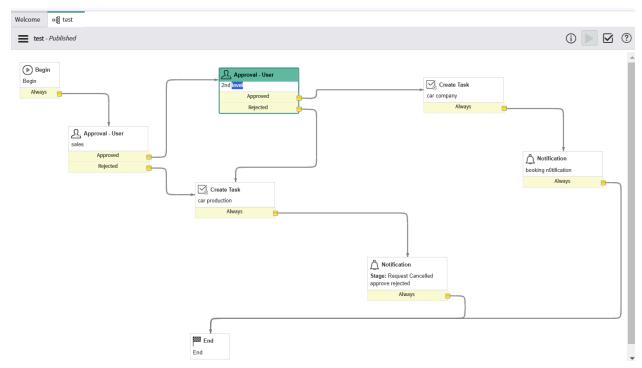
10)Drag create task from core and give name as car company.
11)Give task type car fulfilment table and priority-1.
12)Give task values from values
13)Set values as car status Ready to Pickup.
14)State Closed Complete and submit.
15)Drag the create task from core and give it name as car production.
16)Give task type car fulfilment table and priority-1.
18)Give task values from values.
19)Set values as car status deployment failed.
20)State closed Incomplete.And Submit.
21) Drag Notification from core and give name as Booking Notification.
22)Add To user as Abraham Lincoln and group as Showroom.
23)Give the subject as car showroom and message
<html></html>

```
<body style="font-family: Arial, sans-serif;">
  <!-- Background Logo Wrapper -->
  <div style="background-image:</pre>
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;">
    <!-- Overlay Content -->
    <div style="background: rgba(255, 255, 255, 0.8); padding: 20px; border-radius:</pre>
8px;">
       <h2 style="color: #333;">Car Request Notification</h2>
       Hello, your request for a car model has been submitted and approved.
       <!-- Dynamic Fields -->
       <strong>Requested Car:</strong> ${requested for}
       <strong>Status:</strong> ${approval}
```

Thank you for choosing Mahendra!
24)Submit.
25) Drag the Notification and give the name as car reject.
26)Add To user as Abraham Lincoln and add group showroom.



- 27) Give the subject as a car showroom.
- 28) Give a message as car booking approval is rejected.
- 29)Submit and end.



**MILESTONE 7: Service Portal** 

### **ACTIVITY 1: Searching Create Catalog Are Available in service portal**

#### **PURPOSE:**

Provide users with a centralized, easily navigable platform for accessing and requesting various services and resources. This improves user experience by simplifying service requests and streamlining IT service management.

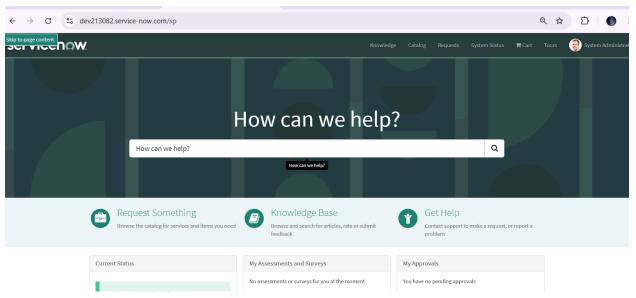
#### **USE:**

Ensure it's correctly configured within your portal's search settings and that it's associated with a visible catalog and category.

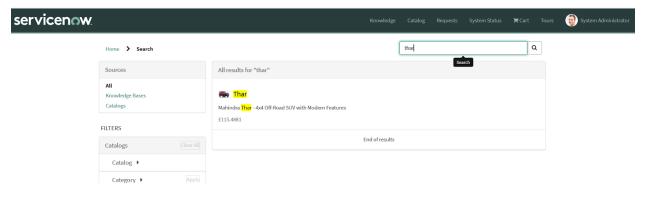
## STEPS:

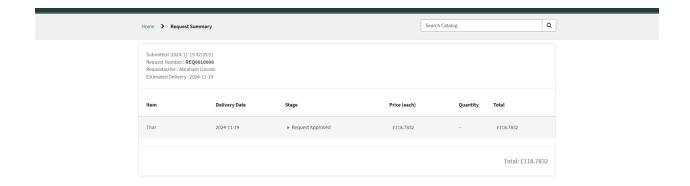
1)Check the cars are available in the service portal. And order it.

- 2) To open a service portal copy the url of your instance up to com/ and give sp press enter for example(https://dev266346.service-now.com/sp).
- 3)Search the catalog item which you are created.

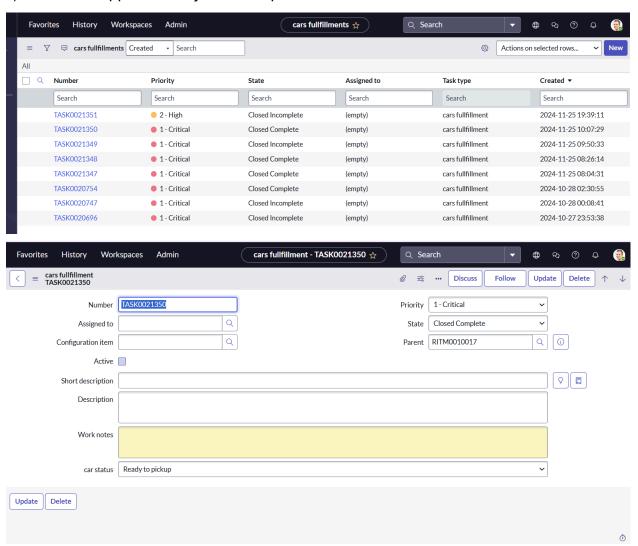


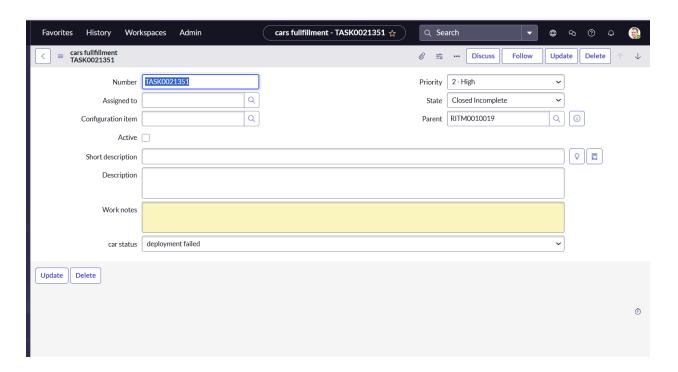
- 5)Search for thar. And order it.
- 6) After ordering the car you get a request number and Delivery date.





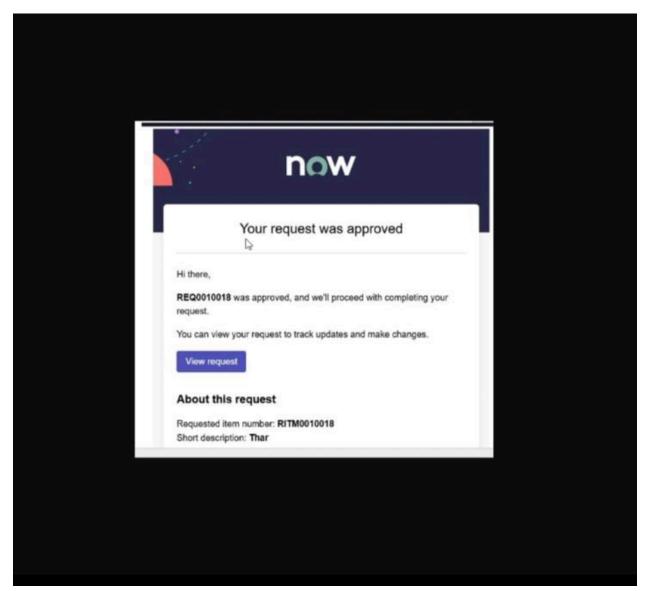
- 7)After requesting an item and the request shown in Task table.
- 8)In Task we Approve or reject the request.





**Result:** 

**Check result:** 



**Advantages And Disadvantages** 

#### **ADVANTAGES:**

An automated car catalog system offers numerous advantages for enhanced showroom management, including improved efficiency, better customer experience, cost savings, and streamlined sales processes. These systems provide real-time inventory updates, accurate pricing information, and efficient lead management, ultimately boosting sales and customer satisfaction.

- Automated systems provide instant updates on vehicle availability, reducing the risk of overselling and improving stock control.
- From lead generation to closing deals, automation simplifies and speeds up the sales cycle, making it more efficient.
- Automated processes minimize human error, leading to fewer mistakes in pricing, inventory data, and other critical information.
- By Automating catalog updates and product information management, new vehicles can be introduced to the market more quickly.

#### **DISADVANTAGES:**

- Implementing an automated system requires significant upfront investment in hardware, software, and potentially new infrastructure.
- This can be a barrier, especially for smaller dealerships with limited budgets.
- Costs may also include training staff on the new system.
- Automated systems can be prone to technical glitches and require specialized maintenance, potentially leading to downtime and delays.
- Dependence on technology means that any system failure can disrupt operations.
- Software errors, even minor ones, can have significant consequences.

#### **CONCLUSION:**

The Car Catalog System project for a car showroom in ServiceNow successfully addresses the need for a streamlined, automated approach to managing car catalog items, customer requests, and approval workflows. By organizing car models into easily navigable categories and leveraging ServiceNow's powerful automation features, the system enhances operational efficiency, reduces manual intervention, and improves customer satisfaction.

An Automated car catalog system significantly enhances showroom management by streamlining operations, improving accuracy, and boosting customer satisfaction. It allows for efficient management of inventory, customer information, and sales processes, leading to better decision-making and increased overall efficiency.