

# Week-4:

## **Digital Nurture 3.0 – Deep Skilling**

### **Hands-On:**

- Scripting on the ServiceNow platform in this course.
- Understanding of how ServiceNow functions
- how to properly configure and personalize the platform
- Incident Module
- Problem Module
- Change Module
- List, Forms

## Scripting on the ServiceNow platform in this course:

1. Scripting on the ServiceNow platform is essential for customizing and automating processes within the platform. ServiceNow is a cloud-based service management platform that allows organizations to streamline their IT services, operations, and business workflows. Scripting helps developers extend the platform's functionality to meet specific business requirements.

ServiceNow primarily uses two scripting languages:

2. **JavaScript:** The core scripting language used across ServiceNow. Both client-side (for user interface enhancements) and server-side (for backend logic) scripting are done using JavaScript.
3. **Glide API:** ServiceNow provides several built-in JavaScript APIs, called Glide APIs, to interact with the platform's database and services. These APIs simplify interactions with forms, tables, and data.

Client-side scripts run in the user's browser and are used to control the user experience. They include:

4. **Client Scripts:** These are used to manipulate fields, validate data, and control form behaviour based on user inputs. For example, a client script can make a field mandatory when a specific condition is met.
5. **UI Policies:** Though not traditional scripting, UI policies control the visibility, read-only state, or mandatory nature of fields dynamically. Advanced configurations use scripting to extend the logic.

Server-side scripting runs on the server and deals with business logic, data processing, and database operations. Key server-side script types include:

6. **Business Rules:** Executed when records are inserted, updated, or deleted, business rules automate business processes. They can interact with the platform's database to enforce data consistency and perform background tasks.
7. **Script Includes:** Reusable server-side scripts containing functions that can be called from other scripts, making the development process modular and efficient.

8. **Scheduled Jobs:** These scripts run at scheduled intervals to perform background tasks like report generation or data cleanup.

## 9. Customization and Automation:

10. ServiceNow's scripting capabilities enable deep customization and automation of processes. For instance, you can build complex workflows that integrate with external systems or automate ticketing processes by scripting workflow activities.

## 11. Best Practices:

12. **Avoid Hardcoding:** Use system properties and scripts that can adapt to changes.

13. **Modular Code:** Break scripts into reusable components like script includes.

14. **Efficient Queries:** Optimize GlideRecord queries to avoid performance issues.

15. In summary, scripting on the ServiceNow platform enhances its functionality by enabling customization, automation, and process optimization, leveraging JavaScript and Glide APIs to achieve tailored solutions.

## SNAP SHOT:

The screenshot shows a ServiceNow incident form in a web browser. The browser's address bar displays a URL with various parameters. The form is titled 'Incident' and 'New record'. It contains several input fields and dropdown menus for incident details. The 'Number' field is populated with 'INC0011384'. The 'Category' is 'Inquiry / Help'. The 'State' is 'New'. The 'Impact' is '3 - Low'. The 'Urgency' is '3 - Low'. The 'Priority' is '5 - Planning'. The 'Assigned to' field is empty. The 'Short description' and 'Description' fields are also empty. The form is displayed on a light gray background with a white border. The browser's taskbar is visible at the bottom, showing the Windows logo, a search bar, and several application icons. The system clock shows 6:44 / 28:11.

Number	INC0011384	Contact type	-- None --
Caller		State	New
Category	Inquiry / Help	Impact	3 - Low
Subcategory	-- None --	Urgency	3 - Low
Service		Priority	5 - Planning
Service offering		Assignment group	
Configuration item		Assigned to	
Short description			
Description			

## Understanding of how ServiceNow functions:

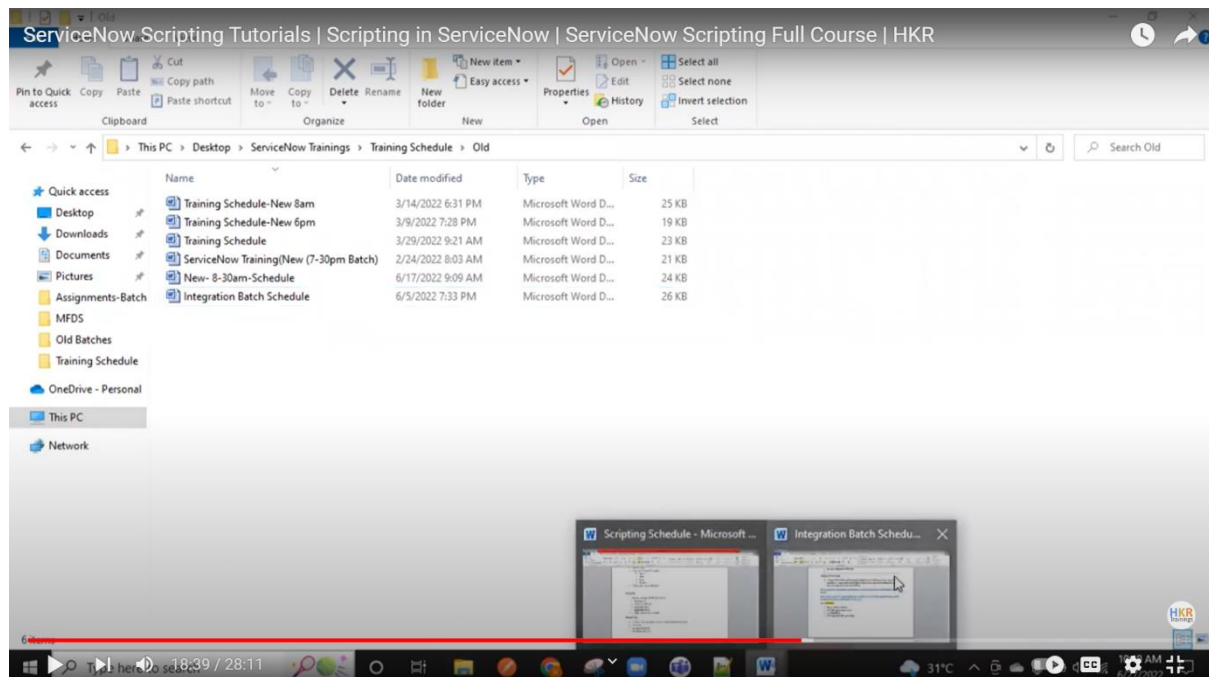
1. ServiceNow is a cloud-based platform designed to streamline and automate various business processes, primarily in IT service management (ITSM), but also across other areas such as HR, customer service, and security operations. It operates on a centralized data model, enabling seamless integration and data sharing across different modules and departments within an organization.

**1.** At its core, ServiceNow is built on workflows, forms, and tables. Workflows automate business processes by defining actions, tasks, and approvals, while forms provide the interface for users to interact with the system. Tables are used to store data, and users can access and manipulate this data through the platform's applications

2. Users interact with ServiceNow through its user-friendly web interface or mobile app, and the platform is highly customizable. With its low-code/no-code development environment, users can create new applications, workflows, and reports without needing deep technical expertise.

3. ServiceNow also uses automation and artificial intelligence (AI) features, such as predictive analytics and virtual agents, to improve efficiency. Through integration with external systems via APIs, ServiceNow can function as a hub for managing various enterprise services, ensuring smooth operations, consistent data management, and improved service delivery across the organization.

## SNAPSHOT:



## How to properly configure and personalize the platform:

1. Configuring and personalizing the ServiceNow platform involves a combination of settings adjustments, customizations, and user-specific tailoring to fit an organization's needs.

### Steps for Proper Configuration:

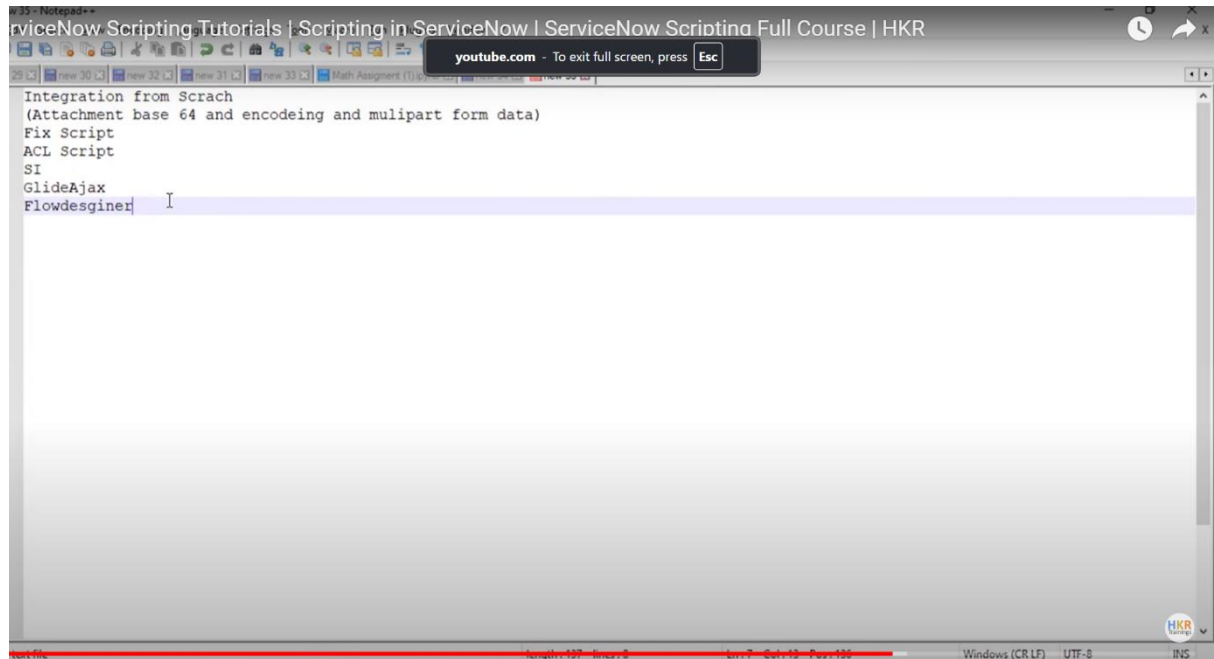
1. **System Properties:** Start by setting global system properties that control overall platform behavior, such as security settings, notifications, and default behaviors. These can be found in the system properties module.
2. **Form Layouts:** Customize form layouts to display relevant fields for users. You can add, remove, or rearrange fields in forms and lists to ensure that users see only the information necessary for their tasks.
3. **Business Rules and UI Policies:** Implement business rules and UI policies to enforce data consistency and control field behavior dynamically. These automate certain processes, such as making fields mandatory based on conditions.
4. **User Roles and Permissions:** Assign appropriate user roles and permissions to ensure that individuals have the correct access level, safeguarding sensitive data while allowing workflow completion.
5. **Branding:** Personalize the platform's appearance by adding company logos, colors, and themes in the branding settings, offering a custom user interface that reflects your organization's identity.

### Best Practices:

- Test customizations in a **sandbox environment** first.

- Use **Script Includes** for reusable logic.
- Regularly update and review configurations to align with changing business needs.

## SNAP SHOT:



## Incident Module, Problem Module, Change Module, List, Forms:

The **Incident**, **Problem**, and **Change** modules in ServiceNow are key components of IT Service Management (ITSM) designed to streamline service delivery, improve issue resolution, and manage changes within an organization. Together with **Lists** and **Forms**, they create a cohesive system for managing workflows and service requests.

## 1. Incident Module:

The **Incident Management** process focuses on restoring normal service operations as quickly as possible after an interruption. Incidents represent unplanned service disruptions or reduction in service quality, such as system failures, network issues, or software bugs. The Incident module enables IT teams to log, track, investigate, and resolve these issues efficiently.

Incidents are created through various channels (e.g., self-service portals, emails, or directly by IT staff), and prioritized based on the severity and impact. The goal is to minimize downtime and ensure service continuity.

Key components include:

- **Incident list:** A central location to view, filter, and manage all incidents.
- **Incident forms:** Capture critical information like incident description, affected services, urgency, priority, and assigned teams.

## 2. Problem Module:

The **Problem Management** process focuses on identifying the root cause of recurring incidents or systemic issues and preventing them from happening again. A problem ticket is usually created when multiple incidents show similar characteristics, indicating a deeper underlying issue.

The Problem module allows for:

- **Root cause analysis (RCA):** Investigating and diagnosing the underlying cause of incidents.
- **Problem records:** Created manually or automatically to investigate ongoing or recurrent issues.



- **Workarounds and permanent fixes:** Implemented based on the findings of the RCA, which can involve temporary solutions or permanent resolutions, reducing the likelihood of future incidents.

### 3. Change Module:

The **Change Management** process ensures that changes to the IT infrastructure are introduced systematically, minimizing risks and disruptions. Changes might include software updates, hardware upgrades, or modifications to services.

In the Change module:

- **Change requests (CRs)** are created to document the proposed change, including its purpose, impact analysis, and approval workflows.
- **Risk and impact assessment:** Every change goes through a review to evaluate potential risks and impact on operations.
- **Change approvals:** Change Advisory Board (CAB) or other authorized approvers must review and approve the change before implementation.

### 4. Lists:

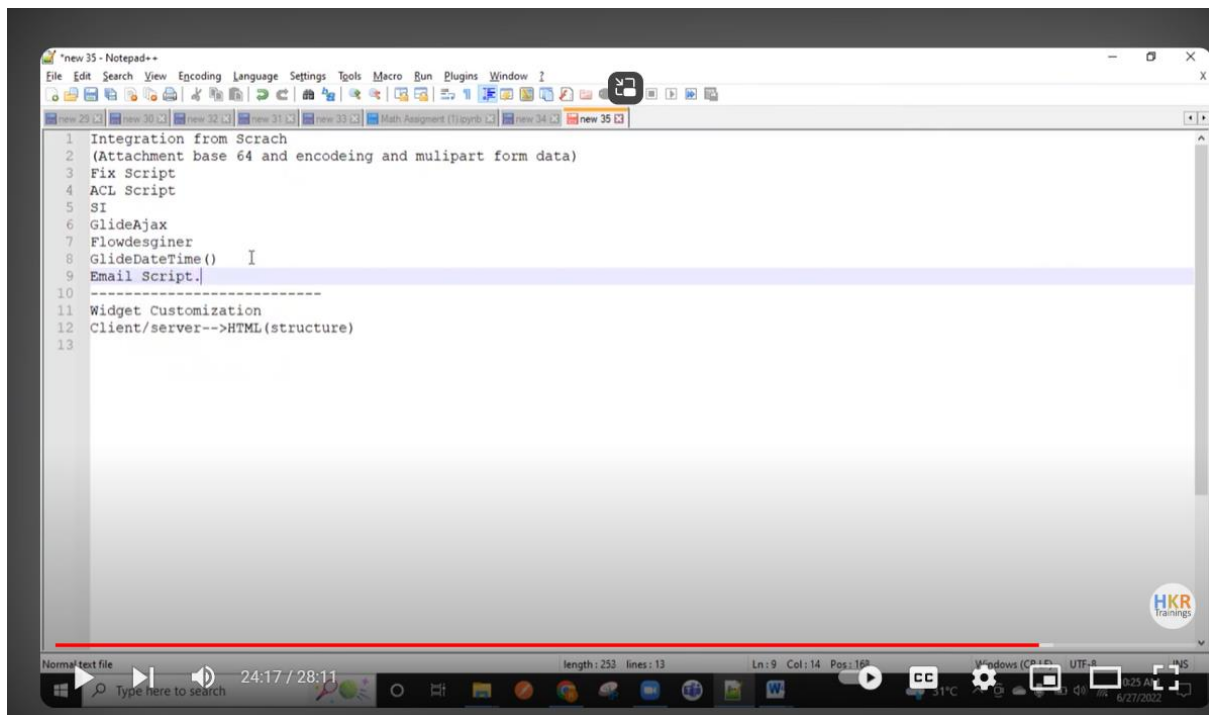
Lists in ServiceNow display records from a specific table (e.g., incidents, problems, or changes). Users can filter, group, and sort lists to view relevant records. Each record in a list is clickable, leading to detailed forms for further action.

## 5. Forms:

Forms are used to create or update records in ServiceNow. They present detailed fields that collect information about incidents, problems, or changes. Forms can be customized to include specific fields, mandatory inputs, and relevant instructions, ensuring all necessary information is captured to manage tasks efficiently.

Together, these modules and tools enable comprehensive, systematic management of IT services, ensuring that incidents are handled swiftly, problems are resolved at the root, and changes are made with minimal disruption.

## Snap Shot:



## CONCLUSION:

ServiceNow's success is rooted in its powerful cloud-based platform, which supports a wide range of business processes across IT, security, HR, and customer service. The roles of administrators and developers are crucial in managing and extending the platform, with administrators focusing on configuration and maintenance, and developers creating custom solutions and integrations.

ServiceNow's growth is driven by its ability to evolve beyond IT Service Management (ITSM) into other areas like HR Service Delivery, Customer Service Management, and Security Operations. This expansion has attracted major customers across industries such as finance, healthcare, retail, and the public sector, solidifying its market leadership.

The platform's cloud-native architecture ensures scalability, flexibility, and security, with features like a multi-instance architecture, a robust CMDB, and powerful workflow automation. ServiceNow's focus on innovation, customer success, and strategic acquisitions has further fueled its rapid growth, making it an indispensable tool for organizations aiming to enhance efficiency and service delivery.

In conclusion, ServiceNow's comprehensive capabilities, supported by a robust architecture and a clear distinction between administrative and development roles, make it a critical asset for businesses looking to streamline operations and drive digital transformation.



