**MODULE - 4**

**ServiceNow Scripting Tutorials | Scripting in ServiceNow | ServiceNow Scripting Full Course | HKR**

**Client-Side vs. Server-Side Scripting**

**Client-Side Scripting**  
Client-side scripting is primarily used to modify the user interface. It helps with tasks such as form modifications, field validations, and other interactions that improve the user experience within the browser.

**Server-Side Scripting**  
On the other hand, server-side scripting handles data management tasks like querying databases and manipulating data on the backend. This ensures smooth data flow between the server and client.

**Script Types**

**Client Script**  
Client scripts are executed on the client-side, specifically in the browser, to make real-time UI changes or validations without having to communicate with the server.

**Server Script**  
Server scripts are executed on the server, where data is processed and operations like querying, updating, or creating records occur.

**UI Policies and Data Policies**  
These scripting tools help control the behavior of forms and ensure proper validation of data before it is saved into the system.

**ACL Scripting**  
ACL (Access Control List) scripting is used to define and enforce security rules, determining who has access to view or modify certain data.

**Business Rules and Script Includes**  
Business rules allow the implementation of server-side logic, ensuring that certain actions are taken when records are created, updated, or deleted. Script Includes allow developers to create reusable server-side scripts that can be called from other scripts.

**Fixed Script**  
Fixed scripts are server-side scripts that are executed once and then captured in an update set, typically for one-time data migrations or modifications.

**Background Script**  
Background scripts allow developers to run ad-hoc server-side scripts directly from the ServiceNow instance, which is helpful for debugging or performing quick fixes.

**Integration Topics**

**Types of Integration**  
ServiceNow supports various integration types, including REST, SOAP, email, and inbound or outbound integrations. These allow ServiceNow to communicate with other systems and platforms effectively.

**Authentication**  
Different authentication methods are used for integration, including JWT (JSON Web Token), basic authentication, and token-based authentication. These methods ensure secure communication between ServiceNow and external systems.

**Attachments**  
Handling attachments, such as base64-encoded or multipart attachments, is a critical part of integration when transmitting files or large data sets between systems.

**Additional Considerations**

**Widgets and Service Portal**  
Customizing widgets in ServiceNow's Service Portal involves both client-side and server-side scripting, in addition to HTML/CSS for styling. This allows for the creation of highly interactive and user-friendly portals.

**Flow Designer**  
Flow Designer enables automation of workflows with minimal scripting, although it may involve some scripting for more advanced customizations.

**Mid Server**

**Installation and Configuration**  
Installing and configuring a Mid Server is typically done by an organization's support team and may not be easily covered in personal instances due to the complexity involved.

**Next Steps**

**Customized Course Plan**  
The course should cover topics like Script Includes, Fixed Scripts, and Integrations, including both basic and advanced scripting concepts. Additionally, any topics discussed during the training, such as GlideDateTime or email scripts, should be included.

**Clarifications**  
Ensure that integration topics like JWT, basic authentication, and token-based authentication are thoroughly explained. Widget customization should focus on the flow of data between server-side and client-side scripts. It's also important to clearly explain the differences between Fixed Scripts and Background Scripts.

**Course Schedule**  
The duration of the course will depend on the customized plan, which will determine the time needed for each module. Providing access to relevant documentation and additional resources would be beneficial for learners.

**Follow-Up**  
Once the customized course plan is ready, follow up with Raj or Nalima to confirm the details and schedule the training sessions.

**What is ServiceNow | ServiceNow Tutorial for Beginners | ServiceNow Full Course | HKR Trainings**

**Overview of ServiceNow**

ServiceNow is a versatile cloud-based platform primarily designed for IT Service Management (ITSM), human resources, and various business processes. Like Gmail, it operates entirely on the cloud and can be accessed from any location, providing a seamless user experience for organizations.

**ServiceNow’s Cloud-Based Nature**

Operating as a Platform as a Service (PaaS), ServiceNow allows users to create and host custom applications in the cloud with minimal coding. This capability enables businesses to streamline workflows and automate processes without extensive development efforts.

**Core Modules and Services**

ServiceNow offers several key modules:

**ITSM (IT Service Management):** This foundational module includes essential services like Incident Management, Problem Management, and Change Management, helping organizations manage IT-related issues.

**HR Management:** This module facilitates human resources processes such as onboarding and offboarding.

**GRC (Governance, Risk, and Compliance):** GRC ensures that businesses, especially financial institutions, comply with regulations and manage risks effectively.

**Financial Operations Management:** Primarily used by the banking sector, this module manages critical financial processes.

**Asset Management:** ServiceNow tracks and manages physical assets such as laptops, phones, and equipment.

**Business Management:** Focused on managing business operations and processes, this module helps optimize performance.

**Accessing Free ServiceNow Instances**

To gain hands-on experience, users can access a free ServiceNow instance by visiting developer.servicenow.com. After registering, users must log in regularly to avoid their instance becoming dormant, as inactive instances may hibernate after a period of time.

**Becoming a ServiceNow Developer**

**Educational Background:** While a degree in IT is recommended, individuals from non-technical backgrounds can also become successful developers. A basic understanding of JavaScript is beneficial but not mandatory.

**Certification:** Aspiring developers should aim to achieve the ServiceNow Certified System Administrator (CSA) certification. This often comes with a free voucher upon completing the associated course.

**Career Growth**

ServiceNow has experienced rapid growth since its inception, making it a promising platform for career development. Its market value has surged, and its wide adoption across industries such as government, IT, insurance, and healthcare indicates sustained demand for skilled professionals.

**Training and Certification**

ServiceNow offers a variety of training programs, from fundamentals to advanced development courses. After completing the training, candidates can take certification exams, with free vouchers sometimes provided to offset exam fees.

**ServiceNow Certification and Voucher Application Process**

1. **Complete Training:** Enroll in the ServiceNow Fundamental course on the Now Learning platform.
2. **Obtain Voucher:** After the course, a voucher code will be provided for the certification exam.
3. **Register for Exam:** Use the voucher code to register for the exam.
4. **Exam Options:** Choose between a free self-paced course with a voucher or a paid instructor-led course that also provides a voucher.

**ServiceNow User Interface Overview**

ServiceNow's user interface (UI) is updated regularly, with UI16 being the latest version. Updates are released biannually and are named after cities (e.g., Istanbul, Tokyo). Key UI components include:

* **Banner Frame:** Displays the instance’s name and logo.
* **Content Frame:** Shows data and content within the application.
* **Navigation Frame:** Located on the left, it allows users to navigate through applications and modules.
* **Application Picker:** Allows for easy switching between applications.
* **Update Set Picker:** Tracks changes made within the instance.

**Customization and Settings**

ServiceNow offers extensive customization options, including themes (e.g., dark mode) and user preferences, allowing users to adjust notification settings and list or form views. Developers also have settings for managing application pickers and update sets.

**Key ServiceNow Modules**

* **Incident Management:** Handles service interruptions by allowing users to log, assign, and resolve incidents.
* **Problem Management:** Focuses on identifying and fixing the root causes of incidents that occur frequently.
* **Change Management:** Manages system changes through various stages, including planning, approval, and implementation.
* **Request Management:** Allows users to request and manage services.

**Example: Creating an Incident**

1. **Navigate to the Incident Module:** Type "Incident" in the application navigator.
2. **Create New Incident:** Click on "Create New" to open the incident form.
3. **Enter Details:** Fill in information such as issue description, category, subcategory, and contact type.
4. **Assign:** Assign the incident to the appropriate group for resolution.
5. **Track Progress:** Use the incident number to track and follow up on the issue’s resolution.

**Incident Management Lifecycle**

* **Creating an Incident:** When a service interruption occurs, an incident is logged with details like urgency and priority.
* **Resolution:** Once resolved, the incident is updated with resolution details, and the status changes to "Resolved."
* **Closure:** Incidents automatically close after seven days, unless manually closed earlier.

**Problem Management Lifecycle**

* **Assessment:** Identifying and assigning the problem to the appropriate team.
* **Root Cause Analysis:** Determining the underlying cause of the issue.
* **Fix and Resolution:** Implementing a solution and closing the problem ticket.

**Change Management Lifecycle**

* **Planning:** Identifying the changes required and defining their scope.
* **Approval:** Securing necessary approvals before implementing changes.
* **Implementation:** Executing the change.
* **Review and Closure:** Reviewing the impact and closing the change request after successful implementation.

**Navigating ServiceNow**

**List View vs. Form View:**

* **List View:** Displays multiple records in a table, allowing for filtering, sorting, and grouping.
* **Form View:** Shows details of a single record with all relevant fields and sections.

**Filtering and Searching:**

* Users can filter records using specific criteria and search for them using keywords or fields.

**Personalization and Configuration:**

* List views and form layouts can be customized, and users can save favorite views for quick access.

**Activity Stream:**

* Displays a history of actions taken on a specific record, providing a quick overview of its lifecycle.

**Summary of Actions**

* **Filter Records:** Use filters to narrow down to specific records.
* **Group and Sort:** Group by categories and sort data for better organization.
* **Create Favorites:** Save commonly used views for faster access.
* **Customize Views:** Adjust list and form layouts to display relevant information effectively.

THIS IS THE CONCLUSION OF THE 4TH WEEK OR MODULE 4 UNDERSTANDING DOCUMENT BY **SANATHANA CHERISHMA SREE**  
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