Cognizant

Digital Nurture 3.0

UNDERSTANDING DOCUMENT WEEK-2

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Preparation of Scripting in ServiceNow

• ServiceNow scripting enables instance customization using JavaScript, leveraging ServiceNow's classes and methods to enhance platform functionality.

• Scripting is necessary when out-of-the-box functionality is insufficient, integration with external applications is required, or automation is desired.

• ServiceNow offers a script editor with features like syntax highlighting, keyword search, automatic brace closure, and code assistance for writing and managing scripts.

Client Side Scripting in ServiceNow

- Client-side scripting in ServiceNow is used to manage forms, form fields, and manipulate elements within a user's browser.

- Client-side scripting can be used to show or hide form sections, validate form data, set field values, and display alerts or confirmations to the user.

- ServiceNow provides various client-side APIs, including GlideForm, GlideUser, GlideAjax, and GlideDialogWindow, to interact with the platform's functionalities.

Scripting in ServiceNow

Server Side Scripting in ServiceNow

•Server-side scripts execute on a server and database to perform operations such as fetching data from a database.

•Server-side scripting can be used for tasks such as updating fields when a record is inserted, setting a value on a field when a parent record is updated, validating the role of a logged-in user, generating events, and sending emails.

•Server-side scripting can be written in access controls, business rules, script includes, transform maps, workflows, and UI actions.

Client Scripts in ServiceNow

•Client scripts are used to manage forms and form fields in real time and are executed on the browser.

•There are four types of client scripts: On Load, On Change, On Submit, and On Cell Edit.

•Client scripts can be used to set field values, show alerts, and hide/show choices or sections on forms.

Glide Form in ServiceNow

- Glide Form API provides methods to customize forms and uses the global object g_form to access those methods.

- The addDecoration method adds an icon to a field's label.

- The clearValue method removes the value of a field on the client-side, but it does not update the database record until the form is saved.

- The getRefrence method, which is commonly used by ServiceNow developers, retrieves data from a referenced table and uses a callback function for asynchronous calls to improve system performance.

Glide User in ServiceNow in ServiceNow

- GlideUser API can be used to get information about the current user in ServiceNow client scripts.

- GlideUser API methods can be accessed using g_user object. Some of the methods include getFirstName(), getFullName(), hasRole(), hasRoleExactly(), hasRoleFromList(), hasRoles(), getLastName(), getUserID(), and getUserName().

- These methods can be used to retrieve user data like first name, full name, roles, sys_id, and username. This data can be used to implement various logic and conditions within client scripts based on user attributes.

Debug Client Scripts in ServiceNow

- Client-side debugging in ServiceNow can be done using JavaScript logs, field watchers, response time indicators, and try-catch blocks.

- The JavaScript log tool in ServiceNow allows developers to insert jslog() statements within client scripts to track script execution and variable values.

- Field watcher enables developers to monitor specific fields on a form and displays information about any actions or scripts that affect those fields.

UI Policy in ServiceNow

- UI policy in ServiceNow is used to dynamically change the behavior of information on forms, such as making fields read-only, visible, or mandatory, and can also control the visibility of related lists.

- While many UI policy actions can be achieved without scripting, scripting allows for more complex conditions and behaviors to be implemented, such as displaying specific alerts or messages based on field values.

- UI policies are executed on the client side and can utilize client-side APIs like g_form and g_user to interact with form elements and user data.

Business Rules in ServiceNow

- Business rules are server-side scripts that run when a record is displayed, inserted, updated, deleted, or when a table is queried.

- Business rules can be used to change field values when specific conditions are met, such as when a user inserts or updates data.

- Business rules can be triggered based on various factors, including the operation being performed (insert, update, delete), conditions based on field values, and the role of the user performing the operation.

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Glide System in ServiceNow

- Glide System is an object that provides access to system-level information and methods for performing date calculations.

- Glide System methods can be accessed in server-side scripts by typing gs. followed by the desired method name.

- Some examples of Glide System methods include gs.getUser(), gs.getUserName(), gs.getUserDisplayName(), gs.getUserID(), and gs.hasRole().

Glide Record in ServiceNow

- GlideRecord is an important object in ServiceNow used for database operations and is executed on the server side.

- GlideRecord can be used to query for records that meet specific conditions, similar to SQL commands.

- GlideRecord can be used to retrieve a single record using the get method and providing a sys_id.

- GlideRecord can count records using the getRowCount method.

- GlideAggregate is an object that should be used for counting or aggregating records as it provides better performance than GlideRecord.

Events in ServiceNow

- Events in ServiceNow are triggering points for actions or operations, indicating something noticeable has occurred.

- Events can be generated in several ways, including scripts, business rules, and workflows.

- Once an event is generated, it is added to an event queue to be processed by the event manager.

Script Include and Glide Ajax in ServiceNow

- Script Includes are server-side JavaScript objects that store and execute functions, promoting code reusability within ServiceNow.

- There are three types of Script Includes: classless (containing a single callable function), class-based (with a class containing one or more functions), and utils (class-based for client-side and server-side calls).

- GlideAjax facilitates client-side calls to server-side Script Includes, enabling data retrieval and manipulation from the client-side.

Workflows in ServiceNow

- Workflows are automated sequences of activities that can run repetitively and are frequently used for service catalog items.

- ServiceNow provides out-of-the-box workflows for various functionalities, but developers can create custom workflows as needed.

- Developers can use scripting in workflows to implement custom logic and business requirements within activities such as approvals, conditions, notifications, and running scripts.

The End