COGNIZANT WEEK-4

Scripting in Servicenow:

ServiceNow scripting involves using JavaScript to customize and extend the functionality of the ServiceNow platform. It allows developers to automate workflows, integrate with external systems, and create custom business logic for various applications, like incident management, change management.

Client-Side Scripting

- Runs in the user's browser.
- Used to manage user interactions and modify forms dynamically.
- Common scripting elements include:
    - **Client Scripts:** Used to make changes to forms based on certain conditions (like field visibility or mandatory fields).
    - **UI Policies:** Modify form behavior based on conditions.
    - **UI Actions:** Add buttons, links, or context menu options to forms or lists.

Server-Side Scripting

- Runs on the server side.
- Used for database operations, business rules, and backend logic.
- Key scripting types:
    - **Business Rules:** Automatically execute actions (like update or validate) when records are inserted, updated, deleted, or queried.
    - **Script Includes:** Reusable server-side code that can be invoked from other scripts.

- **Scheduled Jobs:** Run scripts at a specific time or on a recurring schedule.

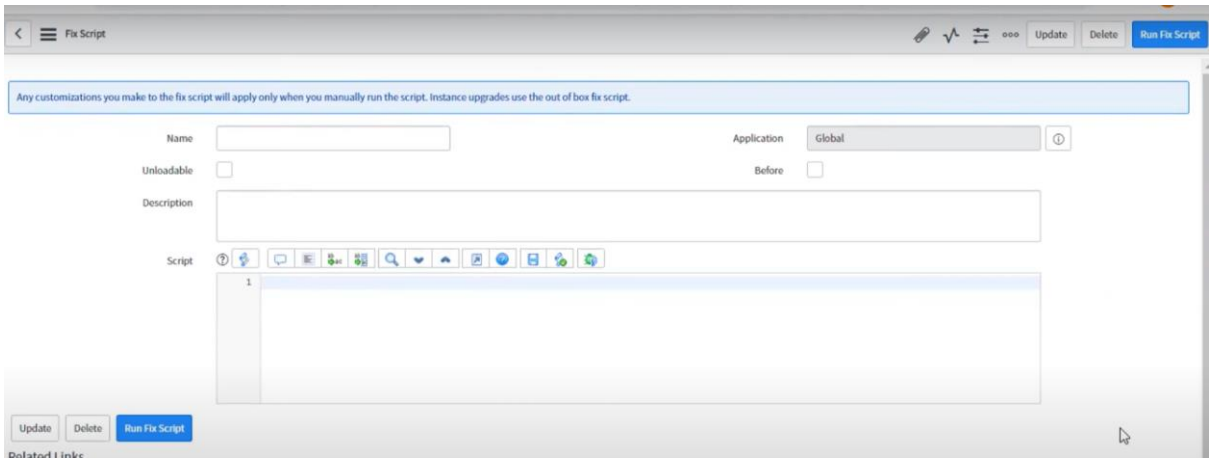
Glide API

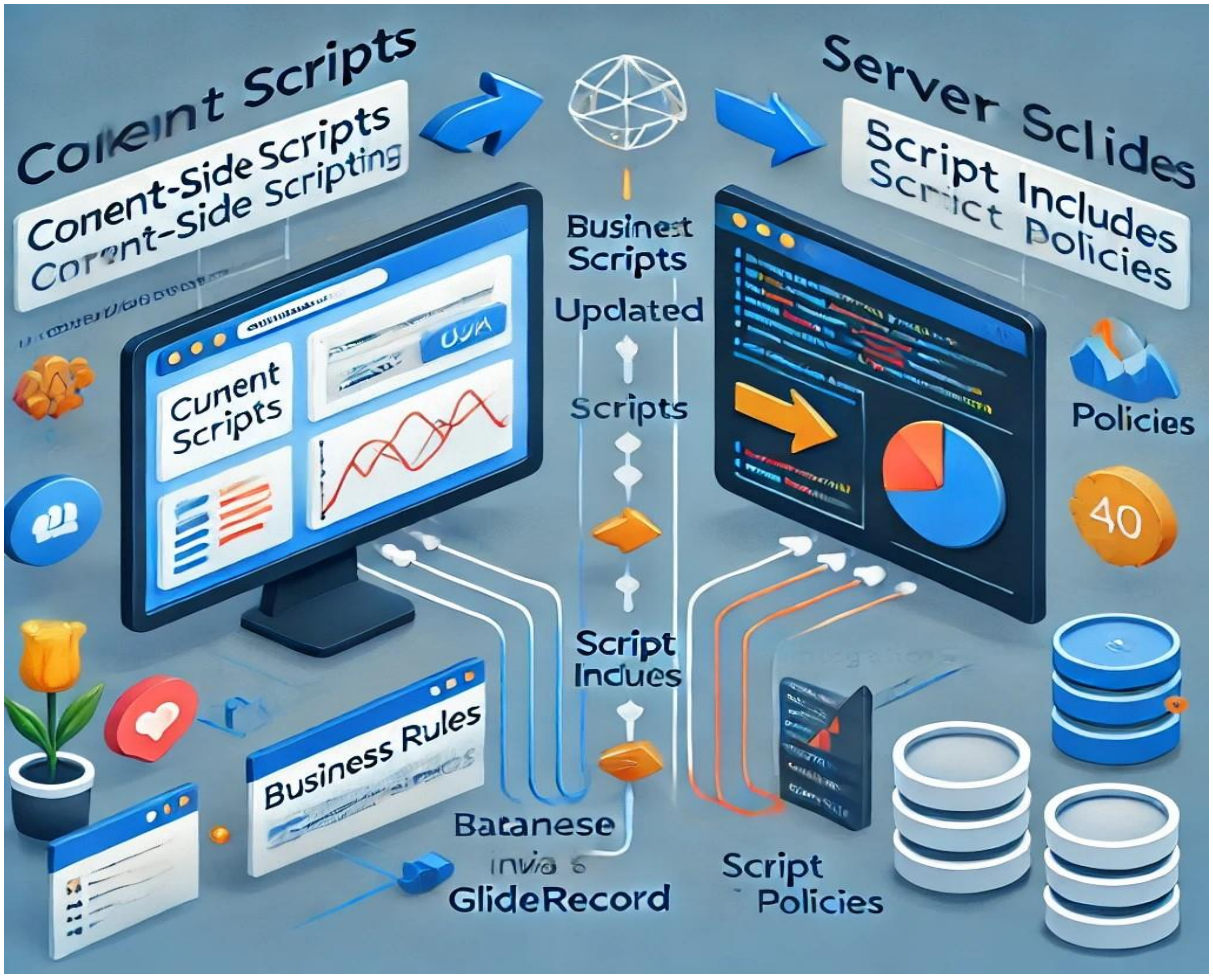
- ServiceNow provides the **Glide API**, which gives access to platform data and functionality.
- Examples:
  - **GlideRecord:** Used to interact with the database.
  - **GlideSystem (gs):** Provides utility functions, like logging or sending notifications.
  - **GlideForm (g_form):** Handles form manipulation on the client side.

Events and Notifications

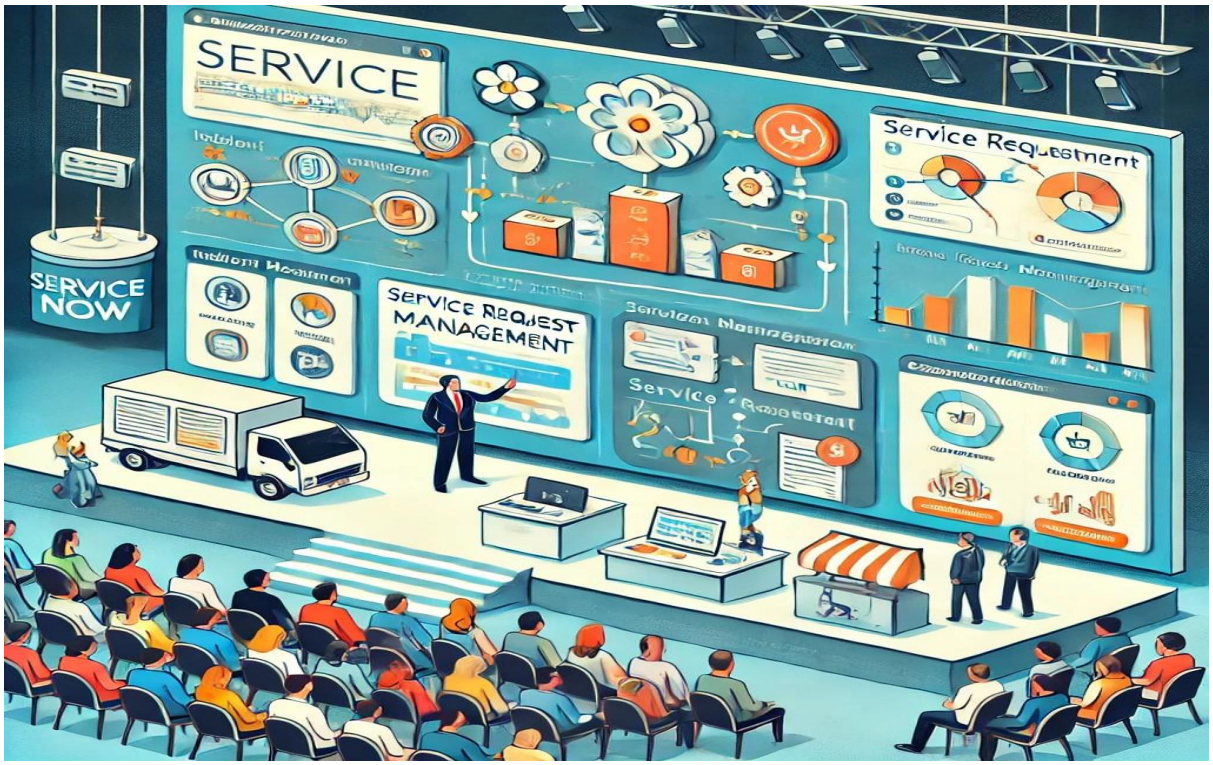
- Scripts can be triggered by events (like record changes), allowing for real-time automation.
- **Event Scripts** and **Email Scripts** can automate notifications based on conditions.

Overall, scripting in ServiceNow enhances the platform's flexibility and can be used to automate tasks, integrate systems, and customize workflows.





Servicenow demo



Scripting Fundamentals

- **JavaScript Language:** ServiceNow scripting uses standard JavaScript with some specific APIs for platform interaction.
- **Variables & Data Types:** Variables are used to store values and can be of different types (string, number, boolean, etc.).
- **Control Structures:** Includes **if-else**, **for loops**, **while loops**, and **switch** statements to control the flow of logic.
- **Functions:** Blocks of code that perform specific tasks, which can be reused throughout the script.

Client Scripts: JavaScript code that runs on forms in the browser.

- Types: **onLoad**, **onChange**, **onSubmit**, **onCellEdit**.

Example:

```
function onChange(control, oldValue, newValue, isLoading) {
  if (newValue == '') {
    g_form.addErrorMessage('Field cannot be empty');
  }
}
```

Server-Side Scripting:

Key Functions and APIs:

- GlideRecord: A powerful API to query, insert, update, and delete records from the ServiceNow database.
  - var gr = new GlideRecord('incident');
  - gr.addQuery('priority', 1);
  - gr.query();
  - if (gr.next()) { // process each record }
- Business Rules: Server-side scripts that execute when database actions occur (insert, update, delete, etc.).

Example:

```
var gr = new GlideRecord('incident');

gr.initialize();

gr.short_description = 'New Incident';

gr.insert();
```

Script Includes: Reusable server-side JavaScript classes that can be invoked from other scripts.

Example:

```
var Utility = Class.create();

Utility.prototype = {

  initialize: function() {},

  calculate: function(a, b) {

    return a + b;

  }

};
```

By mastering these scripting fundamentals and functions, developers can customize and extend ServiceNow’s capabilities to suit specific organizational needs.