## **ServiceNow Script**

ServiceNow has many different types of Scripts. These Scripts can be categorized into two types :

- Client Side Script: These scripts execute within a user's Browser and are used to manage Forms & Forms Fields.
- Server Side Script: executes on Database

## **Available Script in ServiceNow**

| No. | Script                            | Description  | Runs on   |  |
|-----|-----------------------------------|--|---|--|
| 1   | Access<br>Control                 | Determines whether access will be granted for a specified operation to a specific entity   | Server - script and any condition run on the server   |  |
| 2   | Ajax Script                       | Enables the client to get data from the server to dynamically incorporate into a page without reloading the whole page  Client - Ajax Client Script runs of Server Ajax Server Server Script runs of Server Ajax Server Script runs of Server Ajax Server Server Ajax Server Server Ajax Server Server Ajax Server Server Server Server Ajax Server Ser |   |  |
| 3   | Business Rule                     | Runs when database action occurs (query, insert or delete)   | Server - Script and any condition runs on Server  |  |
| 4   | Service<br>Catalog UI<br>Policies | Defines the display of a variable set or a Catalog Item (from service catalog)   | <ul><li>Client - Script [on execute if False or True]</li><li>Server - Script</li></ul>   |  |
| 5   | Client Script                     | Used for the making changes on the appearance of Forms  ***Note: Client Script can be called by other scripts or module, including UI Policies   |   |  |
| 6   | Script Action                     | Contains script which runs when an event occurs  | Server - script and any condition run on server   |  |
| 7   | Script Include                    | Contains scripts which can be Classes & Functions. These script run only when called by other scripts.   | Server  |  |
| 8   | Transform<br>Map                  | Used for Importing Data  | Server  |  |
| 9   | UI Action                         | Buttons or Links   | Client Script<br>Server Script  |  |
| 10  | UI Context<br>Menu                | Defines which "right-click menu" will pop-up in which area, and the menu choices that will be available  | <ul> <li>Client - onShow scripts run on the client.</li> <li>Client - action scripts run on the client</li> <li>Server - dynamic action scripts run on server</li> <li>Server - all conditions run on the server</li> </ul> |  |
| 11  | UI Macros                         | Contains modular, reusable, components that can contain Jelly and are called by UI Pages.  Also contain different types of Scripts and call multiple times.  | <ul> <li>Server - the UI Macros itself executes on the server</li> <li>Server - (Jelly expressions or JavaScript inside Jelly constructs)</li> <li>Client - may generate output that runs on the client</li> </ul>          |  |
| 12  | UI Pages                          | Used to create and display pages, forms, dialog, lists and other UI components.  | <ul> <li>Server - Jelly XML runs to produce HTML</li> <li>Client - HTML may contain embedded JavaScript</li> <li>Client</li> <li>Server - processing scripts runs on the client</li> </ul>                                  |  |
| 13  | UI Policies                       | Define the behavior & visibility of the fields on a form.  | Client - script Server - all conditions run on the server   |  |
| 14  | UI Properties                     | Designates what the instance will look like.   | <ul> <li>Server - properties set on server</li> <li>Client - the results get rendered on client</li> </ul>  |  |
| 15  | UI Script                         | Contains Client Script stores for re-use. Only used when called from other scripts.  | Client  |  |

| 16 | Validation<br>Script | Validate that values are in a specified format. For example: only value allowed in a specific field is an integer. | Client   |
|----|----------------------|--|--|
| 17 | Work flow editor     | Scripts can be run at any point in a work flow   | Server - script and any conditions run on server |

| Server Side                       | Client Side                          |
|-----------------------------------|--------------------------------------|
| Business Rule                     | Client Script/ Catalog Client Script |
| Script Include                    | UI Policy/ Catalog UI Policy         |
| UI Action                         | UI Action                            |
| ACL                               | UI Page                              |
| Scheduled Job                     | UI Script                            |
| Script Action                     | Style Sheet                          |
| Data Policy                       |                                      |
| Fix Script                        |                                      |
| Background Script                 |                                      |
| Work flow                         |                                      |
| Flow Designer                     |                                      |
| UI Macro                          |                                      |
| Processor                         |                                      |
| REST Message                      |                                      |
| Scripted REST                     |                                      |
| Transform Map                     |                                      |
| Widget                            |                                      |
| Report                            |                                      |
| Email Notification - Email Script |                                      |
| SAML                              |                                      |

| Server Side API   | Client Side API     |
|-------------------|---------------------|
| Glide Record      | Glide Form (g_form) |
| Glide Aggregate   | Glide User (g_user) |
| GlideRecordSecure | Glide Ajax          |
| Glide Date Time   | GlideDialogWindow   |
| Glide Element     | Glide List          |
| Glide System (gs) | Glide Window        |
| Glide Query       |                     |

| SCRIPT INCLUDE   | SCRIPT<br>NAME                    | SCRIPT   |
|--|-----------------------------------|--|
| <pre>var ScriptIncludeName = Class.create(); ScriptIncludeName.prototype = Object.extendsObject(AbstractAjaxProcessor, {     ScriptIncludeFunctionName: function() {         var id = this.getParameter('sysId');       },       type: 'ScriptIncludeName' });</pre> | Client Side<br>(Use<br>GlideAjax) | <pre>var ga = new GlideAjax('ScriptIncludeName'); ga.addParam('sysparm_name', 'ScriptIncludeFunctionName'); ga.addParam('sysId', g_form.getUniqueValue()); ga.getXMLAnswer(CallBackFunction);  function CallBackFunction(CallBack) {    alert(output); }</pre> |
|  | Business Rule                     | new ScriptIncludeName().ScriptIncludeFunctionName() or   |

|  | Script Include UI Action (Server Side) UI Action (Client Side) | <pre>var obj = new ScriptIncludeName(); obj.ScriptIncludeFunctionName(); this.ScriptInlcudeFunctionName(); new ScriptIncludeName().ScriptIncludeFunctionName()  Use GlideAjax</pre>   |
|--|--|---|
|  | Flow Designer  | new ScriptIncludeName().ScriptIncludeFunctionName()   |
| BUSINESS RULE  | SCRIPT<br>NAME   | SCRIPT  |
| (function executeRule(current, previous /*null when async*/) {   |  | You cannot call business rule through client script. You can only get the scratchpad value through display business rule.   |
| // Add your code here  |  | If you want to call server side script through client side you need to write script include and then call it through GlideAjax.   |
| })(current, previous);   |  |   |
| <pre>(function executeRule(current, previous /*null when async*/) {   var gr = new GlideRecord("problem");   if (gr.get(current.parent)) {     g_scratchpad.parent = current.parent;     g_scratchpad.short_description =   gr.short_description;     g_scratchpad.assigned_to = gr.assigned_to;     g_scratchpad.assignment_group =   gr.assignment_group;   } })(current, previous);</pre> | Client Script  | <pre>function onLoad() {     //Type appropriate comment here, and begin script below     if (g_scratchpad.parent) {         g_form.setValue("short_description",         g_scratchpad.short_description);         g_form.setValue("assignment_group",         g_scratchpad.assignment_group);         g_form.setValue("assigned_to", g_scratchpad.assigned_to);     } }</pre> |