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Scripting 201: Client Scripting for ServiceNow

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Introductions

Your presenters

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Your presenters

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General Guidelines

A brief look at Best Practices

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General guidelines

- Client Side scripting = JavaScript that runs on browser
- Try using Server Side whenever possible
  - Standardized scalable environment
  - Not exposed to user
- Client Scripting should support completing a form
  - Guide a user through the form, highlight next steps
  - Auto fill fields based on available data
- Client Scripting is NOT suited for Security
  - Way to easy to get around it
  - Client Scripts and UI Policies only run on forms

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General guidelines

- Reduce server lookups
  - Preload information whenever possible using Display Business Rules
  - https://wiki.servicenow.com/index.php?title=Business_Rules#Display_Business_Rules
  - Get all information with one server call
- Avoid synchronous server calls
  - Complex queries may block the browser for several second → Bad user experience
- Avoid DOM manipulation
  - No usage of gel() or getElementById()
  - Use g_form methods instead

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Lab Overviews

Client scripting done the right way

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Lab Environment

- Instance URL will be: https://scripting201-<###>.lab.service-now.com
- Please raise your hand if you have difficulties logging into your instance
- Submit feedback via the application in your instance

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Lab Overviews

- Multiple Client Side APIs used in labs
  - GlideAjax
  - GlideList2
  - GlideDialogForm
  - Additional APIs documented in the wiki: http://wiki.servicenow.com/index.php?title=Client_API_Reference

- Build your own solution based on pseudo code for a more challenging exercise

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Lab 1 Auto Watch List for Priority 1 Incidents

- How to structure a client script
  - Check for isLoading and newValue
  - Prevent unnecessary execution
  - https://wiki.servicenow.com/index.php?title=Client_Script_Best_Practices#Run_Only_Necessary_Scripts
- How to execute server side code and retrieve additional information
  - Don't use GlideRecord or getReference
  - Use asynch GlideAjax calls instead
  - https://wiki.servicenow.com/index.php?title=GlideAjax

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Lab 2 'Open in new tab' context menu

- Context menus are less known field for Client scripting
- Great way of enhancing user's interface

- GlideList2 enables Client scripts (UI Actions & UI Context Menus) to interact with Lists and Related Lists - e.g.:
  - Setting filters
  - Trigger refresh
  - Get name of table list belongs to
  - Complete reference in wiki: https://wiki.servicenow.com/index.php?title=GlideList2_(g_list)

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Lab 3 Creating missing CI from Incident

- UI Actions area able to execute client side code as well
- Some scenarios may require action on different table / record
- Possible solution: GlideDialogForm
  - Shows a specific form (view) for a specific table
  - Incorporates callback function to handle result of form processing
  - Closes after submission

- Always make sure to define proper conditions for UI Actions

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Lab 4 Focus on most important changes

- UI Policies have some advantages over Client scripts
  - Defined order
  - Easy to use condition builder
  - Easy to use Policy Actions
  - → use UI Policies whenever you may benefit from one of those

- Execute if true / Execute if false scripts enable execution of client side code

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Lab 5 Debugging Client scripting

- Know your Debugging tools
- ServiceNow JavaScript Debugger
  - Detailed analysis of client and server side code being executed
- Instance Debug settings
  - Application ‘System Diagnostics’ → Section ‘Session Debug’
  - E.g.: ‘Debug Log’, ‘Debug UI Policies’
- Log statements and related System Logs
  - Application ‘System Logs’
- Browser integrated tools (Developer Tools, Console) or Extensions (Firebug)

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Top Takeaways

1 Respect Best Practices listed in wiki – They'll make your life easier

2 Know all your options – Consider alternatives to Client Scripts

3 Your scripting should support the user – Security has to be server side

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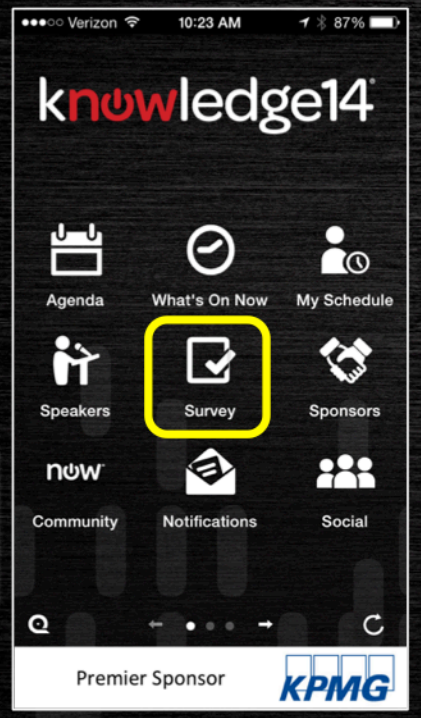
For more information, please visit the wiki:

http://wiki.servicenow.com/index.php?title=Client_Scripts

https://wiki.servicenow.com/index.php?title=Client_Script_Best_Practices

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Thank You

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