

Course Structure

Chapter 1: The Interface

Frames

- Banner frame
 - System Settings
 - Help
 - Connect chat conversations
 - Global Text Search
 - Profile
- The Application Navigator

Filter text box

Favorites

- History

Important application menus and modules

Content frame

UI settings and personalization

Summary

Chapter 2: Lists and Forms

List v2 versus List v3

Lists and Tables

- Creating a custom table
 - Creating an update set
 - Creating the table
 - Adding a field
- List view
- Condition builder
 - Building a filter
 - Dot-walking

Forms

- Form designer
- Form layout
- Related lists

Summary

Chapter 3: UI Customization

UI15 versus UI16

- Switching between UI15 and UI16

Branding your instance
Custom themes
UI-Impacting system properties
Configuring service portal UI
Creating a custom homepage
Styling pages and widgets
Styling the CMS
Summary

Chapter 4: Understanding Data and Relationships

One-to-many relationships in ServiceNow
Many-to-many relationships in ServiceNow
 Creating a M2M table
 Other M2M relationships
Enforcing one-to-one relationships
Defining custom relationships
Database table inheritance
Summary

Chapter 5: Tasks and Workflows

Important task fields
 Active
 Additional comments and work notes
 Assigned to and Assignment group
 Created, Created by, Updated, and Updated by
 Description and Short description
 Number
 State
Journals and the Activity formatter
Extending the task table
Workflows
 Important workflow activities
 User and Group Approval
 Approval Coordinator
 If
 Switch
 Wait for Condition
 Create Task and Catalog Task
 Branch and Join
 Return value
 Run Script
 Set Values
 Workflow Stages

Demo

Approvals
Assignment
Creating Task fields
Summary

Chapter 6: UI and Data Policies

UI Policies
Catalog UI Policies
Reverse if False
Scripting in UI Policies
UI Policy Order
Demo
Data Policies
Demo
Converting between Data and UI Policies
Demo
Data Policies versus ACLs
Summary

Chapter 7: User Administration and Security

Groups and Roles
Impersonating users for testing
Emails and notifications
Demo
Notification Devices
User preferences
Default preferences
Preferences in update sets
Scripting user preferences
ACLs - security rules
ACL process order
High security plugin
Summary

Chapter 8: Introduction to Scripting

To script, or not to script?
Client side versus server side APIs
Client side APIs
Server side APIs
Where scripting is supported

Access controls-executes on: server
Business rules-executes on: server
Client scripts and catalog client scripts-executes on: client
Condition builder (and the URL)-executes on: server
Default value-executes on: server
Script Includes-executes on: server
UI actions-executes on: client and/or server
UI policies and catalog UI policies-executes on: client
UI scripts-runs on: client
Workflow activities-executes on: server

Integrated development environment

Script tree
Script auto-completion
Script editor macros
 Documentation macro
 For-loop macro
 GlideRecord macros
 Demo

Summary

Chapter 9: The Server-side Glide API

The structure of an API class

Server-side APIs

GlideRecord

Initialize
 Example usage
addQuery()
 Available query operators
 Example usage
addNullQuery() and addNotNullQuery()
 Example Usage
canRead(), canWrite(), canCreate(), and canDelete()
 Example usage
deleteRecord() and deleteMultiple()
 Example usage
get()
 Example usage
getDisplayValue()
 Example usage
getValue() and getUniqueValue()
 Example usage
hasNext()

Example usage
initialize() and insert()
Example usage
next()
Example usage
orderBy() and orderByDesc()
Example usage
query()
Example usage
setAbortAction()
Example usage
setLimit()
Example usage
setValue()
Example usage
setWorkflow()
Example usage
update() and updateMultiple()
Example usage

GlideElement

changes(), changesFrom() and changesTo()
Example usage
getDisplayValue()
Example usage
getED()
Example usage
getReferenceTable() and getRefRecord()
Example usage
nil()
Example usage
toString()
Example usage

GlideDateTime

Adding or removing time
Example usage
getDayOfMonth() and getDayOfWeek()
Example usage

GlideSession

getClientData() and putClientData()
Example usage
getTimeZoneName()
Example Usage

GlideSystem

`addErrorMessage()` and `addInfoMessage()`

Example usage

`debug()`

Example usage

`eventQueue()`

Example usage

`getProperty()`

Example usage

`getUser()`

Example usage

`getUserID()`

Example usage

`hasRole()`

Example usage

GlideUser

`getPreference()` and `savePreference()`

Example usage

`hasRole()`

Example usage

`isMemberOf()`

Example usage

Client-side APIs

GlideAjax

GlideForm (g_form)

Setting/Clearing messages on the form and fields

Summary

Chapter 10: The Client-side Glide API

Client-side APIs

GlideAjax

GlideForm (g_form)

Setting/clearing messages on the form and fields

Dealing with drop-down list fields

Getting and setting values on the form

Controlling field visibility

Setting fields mandatory and read-only

Submitting a client-side form

GlideUser (g_user)

Getting user details

Checking user permissions

Getting client data

GlideRecord

Querying for one or more records
Deleting a record asynchronously

Summary

Chapter 11: Server-side Scripting

Dot-walking and GlideElement

Script Includes

Server-side GlideAjax

Business rules

After business rules

Asynchronous business rules

Display business rules and g_scratchpad

Summary

Chapter 12: Client-side Scripting

Client Scripts

Client Script types

onLoad

onChange

onSubmit

onCellEdit

Security

Compatibility

Build for performance

Reference fields

GlideAjax and asynchronous GlideRecord

g_scratchpad

UI scripts

Running only necessary scripts

Scripts files from the server

Summary

Chapter 13: Debugging

Logging

Client-side debugging

Debugging field visibility

Server-side debugging

Reference versus Value

Debugging security

JavaScript debugger (Istanbul)

Debugger interface

Breakpoints

General Debugging

Summary

Chapter 14: Pro Tips

Admin Pro Tips

List personalization

Update Set selector

Reference Field background color

List v3 Rendering

List, Form, and New Window shortcuts

Adding the ServiceNow Frame by URL

Impersonation simplification

Derived Field Risks

Finding derived fields and other field data

Dictionary overrides

Scripting Pro Tips

Avoiding Nested Loops

Limit Logging

Always Use Getters and Setters

What the pros wish they knew

Field case

Generating Encoded Query Strings

How to modify OOB scripts

Other technical best practices

Summary