ORACLE NETSUITE

NetSuite Certified Application Developer Exam

Study Guide (April 2023)

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About the Application Developer Exam

Passing this Application Developer exam certifies that you have the knowledge and skills necessary to be a **NetSuite Certified Application Developer**. See Description of a Qualified Candidate.

To achieve the complete NetSuite Certified SuiteCloud Developer certification, you must also complete the following certification exams:

- Web Services Developer
- SuiteFoundation

Exam Fee

- $250
- $150 (retake)

Taking the Exam

- This will be a live proctored examination.
- No written or online reference materials may be used during the exam.
- 90 minutes are allotted to complete 60 multiple-choice questions.

Description of a Qualified Candidate

The candidate:

- Ideally has 1-2 years of experience working with a range of SuiteCloud Platform technologies that focus on custom coding and point-and-click customization. Has 2-3 years of relevant software development experience.
- Has the knowledge and skills necessary to design, develop, test and deploy secure, scalable, reliable, performant solutions to customize, extend and/or interact with NetSuite.
- Can explain the implications and benefits of NetSuite development and platform options.
- Knowledge of JavaScript, SQL, JSON, HTML, and XML technologies will also be helpful.

Maintaining Your Certification

There will be 2 ongoing requirements for maintaining your NetSuite Certified Application Developer title:

Annual Release Maintenance

NetSuite publishes a once-per-year unproctored New Release Quiz to validate awareness of new NetSuite features released in the previous year. Information on availability of the New Release Quiz will be communicated in the following ways:

- Posted to the Announcements on the Certification webpage.
- Posted to the closed LinkedIn NetSuite Certified group.

- Emailed to the email of record in the Certification Status Search Tool available on the Certification web page.

Refresh Application Developer Exam

NetSuite will rewrite the Application Developer exam as needed. Oracle NetSuite Certified Application Developer certificate holders will be required to retake and pass this exam to maintain their certification.

Recommended Training and Background

These courses and skills are recommended for candidates planning to take this exam. The courses are available via the Certification Preparation–Application Developer Exam learning path in NetSuite MyLearn.

Recommended Training Courses

- SuiteAnalytics: Reports and Searches
- SuiteAnalytics: Advanced Searches
- SuiteAnalytics Workbook: Datasets and Visualizations
- SuiteScript 2.0: Extend NetSuite with JavaScript
- SuiteCloud Development Framework: Building and Deploying Customizations CD.2
- Performance Strategies in SuiteScrip
- SuiteScript 2.1: Working with the Query API and SuiteQL
- SuiteScript 2.0: Custom User Interface Development
- SuiteFlow: Workflow Fundamentals
- SuiteFlow: Advanced Workflows
- Advanced PDF/HTML Templates: Customizing Printouts and Emails

Recommended Skill Level

- 1-2 years of experience working with a range of SuiteCloud technologies
- 2-3 years of relevant software development experience
- Knowledge of JavaScript, SQL, JSON, HTML, and XML technologies will also be helpful.

Subject Areas Covered by the Exam

These are the broad subject areas covered on the exam:

- SuiteScript 2.1

- SuiteFlow
- SuiteBuilder
- SuiteCloud Development Framework
- Performance and Security

Review the following table. Each subject area is broken out into more detail further down in this document.

Topic	Objective
SuiteScript 2.1	Differentiate SuiteScript testing and debugging choices and how to implement proper error handling in scripts.
	Examine ways to design robust solutions, including choosing the correct script type and entry points for a given scenario and promoting script reuse and modularity.
	Apply SuiteScript best practices across script types.
	Demonstrate how to build and modify user interfaces in SuiteScript.
	Use different approaches to interact with records in SuiteScript.
	Use different approaches to automate communications in SuiteScript.
	Identify ways to ensure that scripts function properly across different environments.
	Demonstrate how to build SuiteApps to support internationalization and localization.
	Demonstrate the use of Map/Reduce technology to efficiently process data.
SuiteFlow	Demonstrate how to configure workflow states, actions, and transitions to correctly react to triggers.
	Explain how to structure workflows to process on the client and server.
	Examine how to optimize workflows for best performance and use debugging and troubleshooting strategies to identify performance issues.
SuiteBuilder	Show how to customize Advanced PDF/HTML Templates, including scripting-focused scenarios.
	Demonstrate when and how to use custom forms, fields, records, segments, transactions, and the related security and performance implications.
SuiteCloud Development Framework	Identify when to use Account Customization versus SuiteApp projects and show how to manage Account Customization projects.
	Explain the SuiteCloud Development Framework processes to efficiently build and deploy SuiteCloud projects, including approaches to validation and testing.
Performance and Security	Demonstrate how to manage User Event scripts for maximum performance.
	Explain strategies for using SuiteScript APIs and script types to enhance performance.
	Demonstrate proper security measures across SuiteScript and SuiteFlow technologies.

Study Suggestions

SuiteScript 2.1

Differentiate SuiteScript testing and debugging choices and how to implement proper error handling in scripts.

How to Study: Research these topics: Server-side debugging using SS 2.1 debugger; client-side debugging; using N/log, using "require" for ad-hoc debugging; error handling & creating custom errors with N/error; error handling across script types; debugging RESTlets; APM SuiteApp.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript

Examine ways to design robust solutions, including choosing the correct script type and entry points for a given scenario and promoting script reuse and modularity.

How to Study: Research these topics: Incorporating external JS libraries; creating and incorporating custom modules; benefits of including custom modules and external JS libraries; Client vs. User Event scripts; Scheduled vs. Map/Reduce scripts, Suitelet vs. Portlet scripts; when to use RESTlets; interrelationship between SuiteTalk SOAP/REST Web Services integration and script types.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript

Apply SuiteScript best practices across script types.

How to Study: Research these topics: SuiteScript Best Practices content in Help Center; impact of form customization on scripting; setText vs. setValue; script parameter usage; custom record type vs. scripted solution; JSDoc annotations.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript

Demonstrate how to build and modify user interfaces in SuiteScript.

How to Study: Research these topics: Frontend Suitelets; N/ui and its submodules; beforeLoad of User Event scripts; N/currentRecord in Client scripts; form-level vs. record-level Client scripts; online forms; N/url; N/redirect; context.UserEventType in User Event scripts; Client script entry points.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript, SuiteScript 2.0: Custom User Interface Development

Use different approaches to interact with records in SuiteScript.

How to Study: Research these topics: SuiteScript Records Browser; N/record including Sublists, Custom Child Record Sublists; Subrecords; N/file; N/search, N/query, N/datasets, N/datasetLink; duplicate records using N/task.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript, SuiteScript 2.1: Working with the Query API and SuiteQL

Use different approaches to automate communications in SuiteScript.

How to Study: Research these topics: N/email, N/http, N/https, N/sftp.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript

Identify ways to ensure that scripts function properly across different environments.

How to Study: Research these topics: N/runtime, including working with script parameters and to check if features are enabled; N/config.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript

Demonstrate how to build SuiteApps to support internationalization and localization.

How to Study: Research these topics: N/currency; N/format including submodule N/format/i18n; N/recordContext; N/translation.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript

Demonstrate the use of Map/Reduce technology to efficiently process data.

How to Study: Research these topics: Interaction across Map/Reduce entry points, configuring getInputData, design patterns using map and/or reduce; how to use summarize.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript

SuiteFlow

Demonstrate how to configure workflow states, actions, and transitions to correctly react to triggers.

How to Study: Research these topics: Configuring states, standard actions, custom actions (workflow action scripts), workflow fields, state fields, conditions, and transitions; configuring transitions to react to triggers; Exit/Entry on transitions and triggers; formulas as used in conditions and actions; saved searches in conditions; scheduled actions.

Courses addressing this objective: SuiteFlow: Workflow Fundamentals, SuiteFlow: Advanced Workflows

Explain how to structure workflows to process on the client and server.

How to Study: Research these topics: Approval workflows with buttons and record locking; Before Record Load vs. Before Record Submit vs. After Record Submit; behavior of actions on client vs. server; Do Not Exit Workflow flag; configuration of Contexts and Event Types; sublists on client vs. server; workflows initiated by other workflows.

Courses addressing this objective: SuiteFlow: Workflow Fundamentals, SuiteFlow: Advanced Workflows

Examine how to optimize workflows for best performance and use debugging and troubleshooting strategies to identify performance issues.

How to Study: Research these topics: Modular design, including separation of logic between client & server; leveraging workflows initiated by other workflows; configuring workflow initiation; usage of Old Record; Set Field Value and chosen trigger; logging impacts; workflow execution log.

Courses addressing this objective: SuiteFlow: Workflow Fundamentals, SuiteFlow: Advanced Workflows

SuiteBuilder

Show how to customize Advanced PDF/HTML Templates, including scripting-focused scenarios.

How to Study: Research these topics: Process for generating a PDF; BFO; N/render for scripting; utilizing standard and custom data sources; FreeMarker as applied to NetSuite scenarios: processing sublists, record joins, field labels, formatting; date and number formatting and locale impacts; impact of company and user preference settings.

Courses addressing this objective: Advanced PDF/HTML Templates: Customizing Printouts and Emails

Demonstrate when and how to use custom forms, fields, records, segments, transactions, and the related security and performance implications.

How to Study: Research these topics: Scripting customizations; configuration of Sourcing & Filtering; configuration of Validation & Defaulting; Show in List; Store Value, security setup of custom fields and record types; sourcing & filtering as related to permissions; record locking; implications of inactivating/deleting custom record types; custom objects that have impact on the GL.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript

SuiteCloud Development Framework

Identify when to use Account Customization versus SuiteApp projects and show how to manage Account Customization projects.

How to Study: Research these topics: Account Customization vs. SuiteApp projects, including scope and limitations; manifest.xml; custom deployments using deploy.xml; details of working with Account Customization projects, including using the SuiteCloud CLI for Node.js; Java CLI.

Courses addressing this objective: SuiteCloud Development Framework: Building and Deploying Customizations CD.2

Explain the SuiteCloud Development Framework processes to efficiently build and deploy SuiteCloud projects, including approaches to validation and testing.

How to Study: Research these topics: Working with customizations; record support in SDF; using SDF tools; sequencing of CLI commands for a given scenario; concepts of continuous integration and applicability to SDF; error handling and debugging in SDF, including where to look for errors.

Courses addressing this objective: SuiteCloud Development Framework: Building and Deploying Customizations CD.2

Performance and Security

Demonstrate how to manage User Event scripts for maximum performance.

How to Study: Research these topics: Context filtering; event type filtering; order of script execution; User Event script interactions with other script types and technologies; User Event script entry points and performance considerations.

Courses addressing this objective: Performance Strategies in SuiteScript

Explain strategies for using SuiteScript APIs and script types to enhance performance.

How to Study: Research these topics: See Optimizing SuiteScript Performance in the Help Center; decisions around using certain APIs (focus on N/record and N/record vs. N/search); N/cache; Client and server-side promises; client scripts and fieldChanged; limits across N/search, N/query and N/datasets; utilizing SuiteQL; usage units; incorporating N/task in designs; Script Deployment configuration; integration concurrency for RESTlets; SuiteCloud Processors; impact of SuiteCloud Plus licenses; module loading; APM SuiteApp.

Courses addressing this objective: Performance Strategies in SuiteScript

Demonstrate proper security measures across SuiteScript and SuiteFlow technologies.

How to Study: Research these topics: Using minimally required role; Script Deployment configuration and Audience subtab, Execute as Role, Available without Login; credentials management; logging of sensitive data; client-side logging.

Courses addressing this objective: SuiteScript 2.0: Extend NetSuite with JavaScript