NetSuite Certified SuiteCloud Developer II Exam

Study Guide: March 2022

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About the NetSuite SuiteCloud Developer II Exam

This is the second exam required for NetSuite Certified SuiteCloud Developer II, to be taken after the SuiteFoundation exam has been passed.

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

Fee:

- $250
- $150 (retake)

Taking the exam:

- This will be a live proctored examination. Online proctored testing is also available.
- No written or online reference materials may be used during the exam.
- 120 minutes are allotted to complete 75 multiple-choice and matching questions

Description of a Qualified Candidate

The candidate:

- Ideally has 1-2 years of experience working with a range of SuiteCloud technologies. Has 2-3 years of relevant software development experience.
- Has the knowledge and skills necessary to design, develop, test and deploy secure, scalable, reliable performance 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, SOAP, XML, JSON, and REST technologies will also be helpful.

Maintaining Your Certification

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

Annual Release Maintenance

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

- Posted to the Announcements on the Certification webpage: www.netsuite.com/certification
- Posted to the closed LinkedIn Certified Developer Group
- Emailed out to the email of record in the Certification Status Search Tool available on the above webpage

Refresh Developer II Exam

NetSuite will rewrite the Developer II Exam as needed. Oracle NetSuite Certified SuiteCloud Developer II 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:

Recommended Training Courses:

- SuiteAnalytics: Reports and Searches (2 days)
- SuiteAnalytics: Advanced Searches (2 days)
- SuiteCloud: Exploring the NetSuite Platform (2 days)
- SuiteFlow: Advanced Workflows (3 days)
- SuiteScript 2.0: Extend NetSuite with JavaScript (5 days)
- SuiteScript 2.0: Custom User Interface Development (2days)
- SuiteScript 2.0 for Experienced SuiteScript Developers (2 days)
- SuiteTalk: Integrate Your Applications (5 days)
- SuiteCloud Developer II Exam Preparation (SuiteScript 2.0) (2 days)

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, SOAP, XML, JSON, and REST technologies helpful

Subject Areas Covered by the Test

These are the broad subject areas covered on the exam:

- SuiteScript (2.0)
- SuiteAnalytics
- SuiteFlow
- SuiteTalk
- SuiteBundler
- SuiteBuilder
- Design Fundamentals

Review the following table, each subject area is broken out into more detail:

Topic	Objective
SuiteScript 2.0	Select the SuiteScript (2.0) code snippet that implements a described business process.
	Recognize the purpose of Plug-Ins in SuiteScript (2.0).
	Identify the functionality and capabilities of SuiteScript debugger
	Given a scenario, identify the proper pattern to invoke a scheduled script to support a long-running process.
	Calculate the governance of a script.
	Identify implications of deploying multiple User Event scripts against a single record, order of execution, and how user events interact with other records in SuiteCloud technologies.
	Identify the risks of implementing only client-side validations and strategies to address them.
	Recognize script deployment configuration across script types.
	Determine which variables would be good candidates to use as a company preference, user preference, or Script Deployment Parameter.
	Identify the impact of execution context on user event scripts.
	(new objective) Identify methods for outbound communication and data synchronization from NetSuite.
	Determine how to interact with custom child record sublists in SuiteScript (2.0).
	Determine how to dynamically customize UI field attributes in SuiteScripts (2.0).
	Identify the time zone implications of various ways of setting date / time values and the ways in which these values are interpreted in SuiteScript (2.0)
	(new objective) Determine the use of SuiteCloud Processors.
	(new objective) Identify the functionality and best practices when using the Map/Reduce script type.
	Identify the capabilities of UI Objects.
SuiteFlow	Identify how to configure standard actions and define custom actions.
	Identify how to control the User Interface throughout the workflow lifecycle.
	Describe the ways in which conditions and triggers can be configured to execute actions and transitions.
	Identify capabilities and controls available with states and branching.
	Identify the functionality of record and workflow fields.

SuiteFlow	Compare capabilities of SuiteFlow and SuiteScript (2.0) and determine when to use which technology.
	Identify the usage of scheduling in workflow.
	Determine how to use formulas in SuiteFlow.
SuiteTalk	Identify the SuiteTalk (Web Services) support, versioning, deprecation and General Availability policy of endpoints.
	Identify the process for upgrading SuiteTalk (Web Services) endpoints.
	Identify SuiteTalk (Web Services) authentication methods and benefits.
	Determine session policy for Web Services versus UI; and how sessions are managed for the same user across multiple integrated applications.
	Determine session and thread management techniques with a SuiteCloud Plus license.
	Identify how to develop Data Center-agnostic integrations.
	Determine the appropriate search technique to use in SuiteTalk (Web Services).
	Identify how asynchronous and synchronous Web Services APIs impact integration design and implementation.
	Identify how to build efficient data synchronization.
SuiteBuilder	Determine the impact of form customization on records.
	Identify the performance implications of adding custom fields and the strategies to mitigate performance impact.
	Given a scenario, select the sourcing and filtering criteria, or the defaulting and validation options for custom fields.
	Identify record-locking behavior and options.
	Identify the various options available under the permissions model for custom records.
	Identify how configurations, settings, and preferences impact the behavior of a NetSuite instance.
	Identify implications of deleting or inactivating custom record types.
SuiteAnalytics	Identify implications of using saved searches and coded searches.
	Identify implications of managing a large volume of search results.
	Identify implications of search techniques in SuiteTalk and SuiteScript (2.0).
Design Fundamentals	Identify the role of installation scripts in SuiteBundler.
	Determine how SuiteBundler handles collisions or conflicts during installation or update.
	Identify the impact of an account refresh on bundles.
	Determine how to set roles and permissions for a given situation in various environments.

Design Fundamentals	Identify strategies for and implications of role management and authentication when integrating with external systems.
	Identify NetSuite functionality and recommended practices related to restricted data fields (PII, PCI, e.g.).
	Determine how to optimize performance, scalability, and reliability in SuiteScript (2.0), SuiteFlow and SuiteTalk.
	Determine how to troubleshoot and debug in SuiteScript (2.0), SuiteFlow and SuiteTalk.
	Identify considerations when working with production and non-production environments (e.g. differences in behavior, testing, customizations, etc.)
	Given a scenario, identify applicable integration technologies and their implications.
	Identify how to detect and prevent duplicate records.

Study Suggestions

SuiteScript

Select the SuiteScript code snippet that implements a described business process.

How to Study: Identify availability and functionality of search SuiteScript APIs (Examples: getOldRecord, more, others, sample list, etc.). Identify availability and functionality of SuiteScript Objects.

Recognize the purpose of Plug-Ins in SuiteScript.

How to Study: Identify when to use Plug-Ins. SuiteAnswers topic: Custom Plug-in Overview.

Identify the functionality and capabilities of SuiteScript debugger.

How to Study: Compare ad-hoc and deployed debugging.

Calculate the governance of a script.

How to Study: SuiteAnswers topics: SuiteScript Governance; Script Usage Unit Limits

Identify the implications of deploying multiple User Event scripts against a single record, order of execution, and how user events interact with other records in SuiteCloud technologies.

How to Study: SuiteAnswers topic: How Many User Events Can I Have on One Record?

Identify the risks of implementing only client-side validations and strategies to address them.

How to Study: Identify reasons to perform validations--avoid bad data. Validations should be performed on the client in addition to the server. This will ensure that records being created via an Integration or Data Migration are also validated.

Recognize script deployment configuration across script types.

How to Study: Impact of different ways of deploying scripts. Clients Scripts versus Global Client Scripts (Form versus Record). Code re-use: Opportunity, Estimate, Sales Order, Cash Sale, Invoice but not Item Receipt.

Determine which variables would be good candidates to use as a company preference, user preference, or Script Deployment Parameter.

How to Study: How to utilize script parameters to customize a specific solution: NLAPI scheduled script, Saved Search ID, Notification Email Address. Determine the impact of leaving some script parameters null (blank settings can throw off performance).

Identify the impact of execution context on user event scripts.

How to Study: Understand the impact of session and execution context, i.e. UI versus Web services versus Web store.

Identify methods for outbound communication and data synchronization from NetSuite.

How to Study: Understand outbound integrations. Identify pattern to synch with an external system. It is important to consider external ID nuances. Include considerations for multiple data centers. Identify which domain to use and to connect it for RESTlets. Find this information covered under SuiteTalk as well.

Determine how to interact with custom child record sublists in SuiteScript (2.0)

How to Study: Understand the connection between a parent record and its child record/s. Identify the steps needed to extract and process these child records using the parent record as a reference on the code level. This technique is important as it replicates the primary key-foreign key relationship in a relational database setup.

Determine how to dynamically customize UI field attributes in SuiteScripts.

How to Study: Understand managing field attributes and interaction through scripting.

Identify the time zone implications of various ways of setting date / time values and the ways in which these values are interpreted in SuiteScript.

How to Study: Understand the differences between the way time zone is set for the different API calls (explicit and/or inferred), understand how scripts will interpret these values, and understand which time zone is used to interpret the time when scheduled scripts will run.

Determine the use of SuiteCloud Processors.

How to Study: Understand Processor architecture and what types of processing are supported. Know how to monitor Processor performance, utilization, concurrency, and job priority.

Identify the functionality and best practices when using the Map/Reduce script type.

How to Study: Understand Map/Reduce key concepts, for example the difference between Map/Reduce and Scheduled script types, and review Map/Reduce use cases.

Identify the capabilities of UI Objects.

How to Study: Identify controls that are needed to build a UI. Examples may include and are not limited to: Form versus list versus Assistant Suitelet, in before load, recognize available UI objects (e.g., add sub-tabs dynamically). Understand how fields are rendered the UI (i.e. order, accessibility)

SuiteFlow

Identify how to configure standard actions and define custom actions.

How to Study: Recognize which actions are standard versus custom (or fake), Explain how to create and configure a custom action. Identify all the pieces that go into building a custom action: build workflow action script, identify input parameters (script parameters), identify output parameter, plug into workflow at appropriate trigger point(s), create workflow field to hold return data. Understand that the context of current record is passed into the workflow action script. Identify actions that can be executed on a server.

Identify how to control the User Interface throughout the workflow lifecycle.

How to Study: Identify how to change the display of fields for an end user throughout a workflow based on the status of the record, for example how to effectively use all the actions that can alter the user interface: Set Field Display Type, Set Field Display Label, Add Button, Lock Record. Know how to use these actions at appropriate trigger points (such as Before Record Load or Before User Edit).

Describe the ways in which conditions and triggers can be configured to execute actions and transitions.

How to Study: Identify how server and client triggers can be executed. Identify how transitions are triggered, for example mass update workflow. It is important to know how configuration of trigger affects execution of actions. For example, User Error behaves differently when configured on a client trigger such as Before User Submit versus server trigger of Before Record Submit. Some actions may not execute with certain triggers. For example, it is not possible to execute Send Email at Before Record Submit. On Entry and On Exit triggers may also affect how actions are executed. Predict or identify the outcome of workflow actions based on trigger configuration. Know how to filter execution of actions and transitions through event type. Test may include, but is not limited to: Condition builder, saved search results, buttons, states in other workflows, and time intervals.

Identify capabilities and controls available with states and branching.

How to Study: Examples may include and are not limited to: How to use "Do not exit workflow", Identify how to design an approval workflow that moves through a series of sequential approvers.

Identify the functionality of record and workflow fields.

How to Study: Know when to use workflow fields versus custom fields and which workflow fields are specific to workflow only. Examples may include, but are not limited to: Workflow fields only show in workflow history; Workflow fields do not show in the main area of a record form; record fields must be used when the data should be available in 2 or more workflows running on the same record, except in the case of passing parameters to a sub-workflow. Decisions on using workflow fields versus record fields may also depend on whether searches need to include the fields.

Compare capabilities of SuiteFlow and SuiteScript and determine when to use which technology.

How to Study: What are the basic limitations and benefits of each? For example, both SuiteFlow and SuiteScript can be used to create customer records. However, SuiteScript must be used to create new sales order records due to sublist limitation in SuiteFlow.

Identify the usage of scheduling in workflow.

How to Study: Identify time-based workflow actions and transitions. Recognize when and how to use scheduled workflows, scheduled actions, and scheduled transitions.

Determine how to use formulas in SuiteFlow.

How to Study: Identify where formulas can be used. Determine the usage of SQL and SuiteScript formulas; compute their results.

SuiteTalk

Identify the SuiteTalk (Web Services) support, versioning, deprecation and General Availability policy of endpoints.

How to Study: Identify availability and functionality of SuiteTalk API for these functions.

Identify the process for upgrading SuiteTalk (Web Services) endpoints.

How to Study: Understand Endpoint versioning. Compare sequentially versus upgrading over multiple versions versus skipping some versions.

Identify SuiteTalk (Web Services) authentication methods and benefits.

How to Study: Identify different methods for authentication. What are the benefits of login versus request level credentials? Which single sign-on options are available through Web Services?

Determine session policy for Web Services versus UI, and how sessions are managed for the same user across multiple integrated applications.

How to Study: Identify methods for session management. Every user is entitled to a UI session and a WS session concurrently. Sessions initiated for the same user across browsers or integration points invalidate other existing sessions.

Determine session and thread management techniques with a SuiteCloud Plus license.

How to Study: Identify methods for managing concurrent sessions with SuiteCloud Plus. Choose from among code samples for queuing and pooling algorithm. Java or .Net? Understand multiple thread management/concurrency aspect.

Identify how to develop Data Center agnostic integrations.

How to Study: Working with multiple data center. This may include, but not limited to these APIs: getDataCenterURL; or REST service for DC URL. Consider how disaster recovery may dynamically discover the correct Data Center URL for a NetSuite account.

Determine the appropriate search technique to use in SuiteTalk (Web Services).

How to Study: Identify the most efficient method for searching. Examples may include and are not limited to: When to use basic (returns entire record) versus advanced searches (returns defined results only but allows joined record search) versus saved search. Given a scenario, identify which search method to use: Using abstract Searches with items and entities, using joined searches to return specific fields on a record or on a related record and save multiple roundtrips, using a single search instead. This is about performance and efficiency, custom joins in advanced search can save multiple round trips for data lookups.

Identify how asynchronous and synchronous Web Services APIs impact integration design and implementation.

How to Study: When to use asynch versus synch operations and differences between allotments of usage from these.

Identify how to build efficient data synchronization.

How to Study: Identify issues around data synchronization for internal and external IDs. Examples may include and are not limited to: Use of external IDs and getDeletedRecords and advanced search with lastModifiedDate. Identify the key concepts in SuiteTalk APIs that help you build an efficient data synchronization between an external application and NetSuite.

SuiteBuilder

Determine the impact of form customization on records.

How to Study: How does form customization impact field validation on records. Consider hidden fields, mandatory fields, field validation, etc.

Identify the performance implications of adding custom fields and the strategies to mitigate performance impact.

How to Study: Impact of adding many custom fields in forms on performance. How does the type of field in forms vary in their impact on performance? Given an example of a use case with defined number and data types of custom fields being processed in the forms, identify the performance implications and determine strategies to alleviate them.

Given a scenario, select the sourcing and filtering criteria, or the defaulting and validation options for custom fields.

How to Study: Determine how to leverage sourcing, filtering, and validation on custom fields. Example: The values on a dropdown field may vary based upon a previous dropdown field value.

Identify record-locking behavior and options.

How to Study: Identify the benefits of enabling optimistic locking for custom records, and other ways in which fields are locked.

Identify the various options available under the permissions model for custom records.

How to Study: What are the differences between "access type" and "allow UI access"? What is the impact of setting the default access control to None (with role-specific access control) versus opening the record to all?

Identify how configurations, settings, and preferences impact the behavior of a NetSuite instance.

How to Study: Understand the available configurations, settings, and preferences, for example custom transactions, custom forms and custom elements that you can create with SuiteBuilder to customize a NetSuite instance.

Identify implications of deleting or inactivating custom record types.

How to Study: Understand how the system should handle the deletion of record types referenced by a custom field. Allow delete of lists/record values preference (especially when the records are still being referenced by custom fields). Determine the differences between Inactivating versus Deleting custom record types, identify constraints around deleting custom records, and how to address these limitations.

SuiteAnalytics

Identify implications of using saved searches and coded searches.

How to Study: Benefits and risks of leveraging saved searches to decouple search customizations from code changes. Understand the risk that someone could mess up the saved search and break automation. Identify the impact that saved search access control has on scripting.

Identify implications of managing a large volume of search results.

How to Study: Understand paginated search results in the context of governance. What is the limit on results per page? Identify impact of and remedies for pagination of searches on solutions.

Identify implications of search techniques in SuiteTalk and SuiteScript.

How to Study: Understand the differences between NLOBJsearch methods and NLAPIsearchRecord. Questions may include pagination as well.

Design Fundamentals

Identify the role of installation scripts in SuiteBundler.

How to Study: Understand how installation scripts are used and the order of steps that are executed in them. Understand how to use installation scripts to seed data using a CSV import.

Determine how SuiteBundler handles collisions or conflicts during installation or update.

How to Study: Understand how the installer handles collisions and script IDs in scripts, Identify considerations of interoperability of bundles. Given a scenario, predict resulting location and bundle components grouping of a newly installed bundle. Predict the behavior when updating existing components; identify implications of multiple bundles/scripts working on the same objects/fields.

Identify the impact of an account refresh on bundles.

How to Study: Study how this may vary depending upon the environment--for example: Sandbox refresh, release preview, development, deployment.

Determine how to set roles and permissions for a given situation in various environments.

How to Study: Ensure that the customizations have been tested for the intended audience. Understand the testing model and using the correct audience. Debugging workflow with a status of testing. Use a custom role with the least required permissions to build and test applications. Recognize the optimal role-based permission mapping for a given business process. Run as role versus Admin versus available without login. Select the permissions that most securely allow completion of a task in a solution.

Identify strategies for and implications of role management and authentication when integrating with external systems.

How to Study: Manage credentials for external systems. Authentication and SSO.

Identify NetSuite functionality and recommended practices related to restricted data fields (PII, PCI, etc.).

How to Study: Recognize restricted data fields that require special handling.

Determine how to optimize performance, scalability, and reliability in SuiteScript, SuiteFlow and SuiteTalk.

How to Study: Identify optimization opportunities for a given use case. e.g., reducing updating of current record in afterSubmit(). Given a scenario, identify opportunities and solutions for optimizing throughput and/or scalability in SuiteScript, SuiteFlow and SuiteTalk.

Determine how to troubleshoot and debug in SuiteScript, SuiteFlow and SuiteTalk.

How to Study: Understand and address web services error handling and error codes; review how to use Script Debugger to troubleshoot scripts; use the workflow log to identify workflow failures and update workflow settings.

Identify considerations when working with production and non-production environments (e.g. differences in behavior, testing, customizations, etc.).

How to Study: Review access to sandbox versus production, sandboxes on the NetSuite domain, limitations on data, and feature testing (including customizations) available in sandboxes.

Given a scenario, identify applicable integration technologies and their implications.

How to Study: Review SuiteTalk (web services) integration capabilities as well as specific integrations for telephony and payment services.

Identify how to detect and prevent duplicate records.

How to Study: Understand how to activate and apply the Duplicate Detection and Merge feature. Know which record types support duplicate processing.