Qlik Sense Certification Exam Study Guide

Abstract

This document contains information about what you need to study as you prepare for your Qlik Sense Certification Exam. It covers all three roles: System Administrator, Data Architect and Business Analyst. This is the only published study guide authorized by Qlik.

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Introduction

Welcome to the study guide for the Qlik Sense Certification Exams.

This document was created in response to requests for additional information about how to prepare for a Qlik Certification Exam. This guide covers the latest exam versions, which are based on the June 2017 Release of Qlik Sense.

Due to time required to develop certification exams, the latest exam is usually behind current product release. We strive to have only one version of the exam available at a time,

Qlik Certifications do not expire. They are designed to "age out" naturally as new product versions are released. Attaining the latest available version of your certification is recommended, so you can validate you keep up your skills with this rapidly evolving product.

The Qlik Certification Program was created to validate the skills and knowledge of Qlik Partners. Expert-level skills are needed to sell, install, design, develop, support and maintain Qlik Sense in an enterprise environment. Qlik Certification exams are designed to be challenging. So after you pass your exam, you can be proud to have achieved a certification with value.

Good luck!

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Preparation Basics for Everyone

Where to Begin

All the latest information about the Qlik Sense exams is maintained on the [Qlik Sense Certification web page](). To get ready for certification, read everything on this page, including the FAQs.

This page lists the three Qlik Sense Certification Exams, each followed by three sections:

- Exam Prerequisites
- Recommended Preparation Resources
- Exam Domain Areas

Exam Prerequisites lists the background knowledge and experience you should have before attempting a certification exam. **Recommended Preparation Resources** are training and materials that certification candidates should attend or study to get ready for an exam. And finally, **Exam Domain Areas** is the list of sections and objectives used to write the exam questions. This list is helpful to review as you prepare for your exam.

Training

Qlik offers a variety of training to get started with Qlik Sense. Instructor-led training is offered in person or virtually. Qlik Continuous Classroom is a self-service training portal with regularly updated modules. The training will give you the basics about using Qlik Sense, but please note: they are NOT designed specifically to ensure you pass a certification exam. To really understand the power of Qlik Sense, take what you learned and apply it.

Hands-On Experience

It is highly recommended to get hands-on experience with Qlik Sense in an enterprise environment before attempting a certification exam. By developing applications and data models, or managing a Qlik Sense site, you will gain valuable skills and knowledge by working through challenges. There is no minimum recommended amount of experience, because environments can vary.

Practice Questions

On the Qlik Sense Certification web page, under the "Recommended Preparation Resources" section, you will find a link to FREE Certification Practice Questions. There are 10 questions for each exam.

NOTE! ONLY the Certification Practice Questions should be used to help you decide if you have ready for your exam. They are actual exam questions that were developed and beta tested, but not used on the operational exam form.

The Skills Assessments and quizzes in the Qlik Continuous Classroom are NOT exam preparation materials! They should be used as you are learning about Qlik products and going through training materials, but are just the beginning of your Qlik learning journey.

Exam Tips

Certification exams can be stressful. The pressure is on and you want to pass. Here are a few tips to help you:

1. For questions where you need to select multiple answers, you will see a prompt, such as "(Select two)" or "(Select three)". ALWAYS select the required number of answers. Partial credit is NOT given for this type of question. You either get it completely correct or not.

2. Plan to take two passes through the exam. The first time, go quickly and answer all the questions that you know right away. If you don't know the answer immediately, click "Flag for Review". Then at the end, review only the flagged items.

3. When reviewing your flagged items, if you don't know the answer to a question, work on eliminating one or two of the answers. Then select the best choice and move on.

4. Trust your gut. We do not intentionally write questions to trick you, so don't over-analyze them.

5. If you need to re-take the exam and register for the same exact version, you will see the same questions in a different order. The order of the answers is also randomized, so be sure to read the entire question thoroughly.

Next Steps

The following pages have more specific information for each Qlik Sense Certification Exam. These lists of knowledge, skills and abilities were assembled by the exam development team during the exam design process. These are illustrative, not exhaustive lists, but should give you an idea of the topics that are within the scope of the exam (and also what topics are NOT within the scope).

As you prepare for your exam, practice performing the various tasks in your own work environment. Experiment with Qlik Sense to learn new skills. If you get stuck, refer to the online help, or reach out and ask questions in Qlik Community. Studying – and using – the "Knowledge and Abilities within Exam Scope" in this document will best prepare you for your certification exam.

Qlik Sense Business Analyst Certification Exam

Knowledge and Abilities within Exam Scope

Interpret Business Requirements

- Based on business requirements, identify KPIs, dimensions and measures
- Explain Qlik Sense features (e.g., smart search, responsive design, smart visualizations, etc.) and how they impact app design
- Ask appropriate questions to understand the needs of the potential users of the Qlik Sense application
- Identify user types and their typical devices to use to access apps
- Explain the existence of APIs, extensions (such as Qlik GeoAnalytics), web mashups, widgets and where they might be used (i.e., NOT how to code them)
- Explain green-white-gray-light gray

Prepare Data for Application

- Create a basic data model using Data Manager (e.g., spreadsheets, CSV, flat files, etc.)
- Explain synthetic keys and possible methods of resolution
- Create data connections
- Use smart data load
- Create connections to Qlik DataMarket

Design the Application User Interface

- Based on the business requirements and desired insight, determine the optimal number of charts, correct chart type, order of dimensions, use of color, and measures
- Structure the application in Qlik Sense to provide coherent sheets and an overall flow matching the expectations of the user journey (DAR concept)
- Select object types appropriate for the required data analysis (e.g., a line chart to show a trend over time)
- Identify the proper expression to create the appropriate visualization to meet the business requirements
- Explain how to use theming for apps and sheets (icons, colors)
- Plan the filters and bookmarks needed based on user requirement

Build the Application

- Add dimensions, measures, and objects
- Create and use variables
- Use custom color in charts (e.g., Colormix, CSS colors, IF statements, etc.)
- Import extensions (e.g., from Branch)
- Create a story
- Create master items
- Apply filters and create bookmarks
- Use advanced functions like AGGR and Set Analysis

Deliver the Application

- Perform basic tasks around making a production standard application (e.g., create a thumbnail image, appropriate title, etc.)
- Understand content-related QMC tasks (but not necessarily how to perform them)
    - Manage content library
    - Publish and unpublish apps
    - Import and export apps

Knowledge and Abilities NOT within Exam Scope

- Create a complex data model
- Create complex formulas
- QMC tasks outside of simple app publishing and managing the content library
- Code API calls
- Qlik Sense architecture
- Create or modify extensions
- Build web mashups using Qlik Sense objects
- Build widgets
- Explain security rules
- Qlik NPrinting

Recommended Reading for Qlik Sense Business Analysts

In the Qlik Sense online help, review the topics under "Creating apps and visualizations".

Qlik Sense Data Architect Certification Exam

Knowledge and Abilities within Exam Scope

Gather and Interpret Requirements

- Given a set of business objectives, determine KPIs, dimensions or measures
- Given customer requirements, determine an appropriate solution to meet the customer needs (e.g., master library elements)
- Interpret basic security requirements

Identify and Analyze Data Sources

- Given a data set, identify quality issues and potential solutions
- Determine the expected effects of data quality issues
- Given a data set, determine the relationships among data and how the relationships will affect the Qlik Sense data model (e.g., performance, accuracy, scalability)
- Use various methods and explain considerations for connecting to different types of data sources

Load Data and Create the Associative Data Model

- Create load scripts
- Describe the circumstances under which different load strategies should be used (including On-Demand App Generation (ODAG)
- Explain load techniques and functions relevant to data transformation
- Enhance data preparation using the data profiling capabilities in data manager (e.g., sorting, bucketing, splitting)
- Given a scenario, determine how to resolve table association issues (e.g., synthetic keys, circular references)
- Explain the circumstances under which QVD and QVX files and/or n-tiered data architectures should be recommended
- Describe the use and properties of fact tables and dimension tables
- Explain how to resolve complex calendar scenarios
- Explain the use and effects of different types of joins
- Given business requirements, determine appropriate section access configuration
- Explain the use of control statements and/or variables
- Given a script, determine the cause and/or solution for a script error
- Identify load limitations (e.g., maximum number of characters)
- Create measures and dimensions for re-use in the master library
- Create library expressions including set analysis and variables
- Identify and explain use cases for Direct Discovery
- Identify and explain the use of Qlik connectors
- Explain the capabilities of various load types in Qlik GeoAnalytics
- Explain how to convert a QlikView app to Qlik Sense

Validate Data in Qlik Sense Application

- Explain the purpose and functionality of Qlik Sense troubleshooting tools or functions (e.g., debugger, script log)
- Explain the purpose and functionality of the data model viewer
- Use visualization to validate the data model

Knowledge and Abilities NOT within Exam Scope

- Create connections and use data from complex data sources (e.g., SAP, SAS, Google Big Query, Hadoop)
- Create Direct Discovery solutions
- Apply complex optimization of the data model
- Address complex data security requirements
- Programming languages
- Advanced SQL skills
- Design user interface in Qlik Sense applications
- Create load scripts for Qlik GeoAnalytics

Recommended Reading for Qlik Sense Data Architects

In the Qlik Sense online help, review the topics under "Script statements and keywords" and "Managing data".

Qlik Sense System Administrator Certification Exam

Knowledge and Abilities within Exam Scope

Gather and Interpret Requirements to Deploy Qlik Sense Enterprise

- Evaluate hardware, software, and network to determine if minimum requirements are met for projected number and size of applications, for initial deployment and expected future growth
- Describe workflows for setting up and configuring a single-node or multi-node Qlik Sense Enterprise site (physical or virtual)
- Understand the implications of cloud-based deployments (e.g., Amazon Cloud)
- Determine whether Advanced Analytics Integration (AAI) is needed
- Explain the Qlik Sense services and their dependencies
- Identify scalability, capacity, and resilience requirements for a multi-node site and the services to run on each node (e.g., set up a floating central node)
- Plan a shared persistence deployment
- Determine data connectivity requirements
- Evaluate the security requirements
- Determine license and token requirements
- Set up user accounts to perform the installation
- Determine required user directory connection(s)
- Determine the type of virtual proxy to use and implications of the different authentication methods (e.g., the new JSON Web Tokens (JWT) authentication method)
- Determine type of scheduler (master/slave) needed to support tasks
- Explain the use of various storage options: NAS vs SAN vs DAS
- Use the customer/partner portals to gather installation files, associated release notes and manuals, keeping updated about current product modifications/changes
- Use the online help, Qlik Community, Qlik Branch, and other online resources for help, technical briefs and documentation

Set Up and Configure Qlik Sense Enterprise

- Analyze Windows server management console settings to determine the appropriate configuration for the setup (e.g., required ports are available, firewall settings)
- Create a file share
- Install correct Qlik Sense components given a specific design
- Apply server licenses and allocate tokens (including QAP)
- Install and manage self-signed and third-party certificates
- Set up services for each node
- Configure the user directory connector(s) (e.g., Active Directory, LDAP)
- Configure roles, rules, and streams
- Apply roles, rules, and streams
- Configure appropriate type of scheduler (master/slave) and reload tasks
- Configure synchronization rules between nodes
- Set up virtual proxies and authorization

- Set up security rules to restrict/grant access to system, streams and apps (including groups and custom properties)
- Set up authentication and authorization
- Set up user accounts (either internal to firewall or external)
- Install extensions
- Understand the implications of installing extensions
- Apply and evaluate the given configuration of Qlik Sense Services within Windows Services Applet and Qlik Sense Management Console
- Configure the proxy service (changing a port, moving from HTTP to HTTPS, configuring a white list, setting up anonymous access, adding a virtual proxy, etc.)
- Explain the use of memory usage settings
- Install or uninstall Qlik Sense software updates

Administer and Troubleshoot Qlik Sense

- Explain the different views in QMC and methods to manage resources
- Locate Windows and Qlik Sense log files, know their purpose, and interpret content to troubleshoot problems
- Diagnose and resolve the root cause of problems
- Manage applications – publishing, unpublishing, importing, reassigning
- Troubleshoot and resolve user access problems, including section access
- Troubleshoot and resolve security rule problems
- Troubleshoot and resolve user management problems
- Troubleshoot and resolve application and task problems
- Troubleshoot certificate issues using MMC
- Manage and maintain users (token allocation, delete users, etc.)
- Apply different roles for various users (root, content, audit, etc.)
- Locate resources in various folder of the service cluster (Qlik Sense environment)
- Define custom properties for apps, rules, users
- Use audit functionality to validate rules, etc.
- Troubleshoot and validate data connections
- Set up environment to deploy authentication links
- Create and manage tasks according to given resources
- Use License Monitor to validate license information and manage licenses
- Use the Qlik Sense Service Dispatcher (QSD) to launch and manage Migration Service, Data Profiling Service, Chart Sharing Service, Broker and Hub Service
- Use the Operations Monitor in the QMC and Hub for the performance history of hardware utilization, active users, app sessions, results of reload tasks and errors and warnings
- Deploy the custom connectors
- Modify memory usage settings according to changes in the environment
- Create library for database connections, and assign correct rights to them
- Configure governance applications for monitoring
- Set up delegate administration for the QMC using rules based access
- Complete a system backup

- Use appropriate switches in settings files (e.g., SSL for communication between services, Repository, Program Files, differences between audit, trace, and system logs)
- Monitor simple performance usage through Task Manager
- Modify, repair, update or uninstall Qlik Sense
- Use troubleshooting tools (e.g., Fiddler and Google Dev tools) to resolve issues
- Use the customer/partner portals to log, update, and monitor a support case
- Install and use the Log Monitor, Reloads Monitor, and Sessions Monitor

Knowledge and Abilities NOT within Exam Scope

- Set up Advanced Analytic Interface (e.g., connect to R, Python)
- Fix a corrupted repository (with synchronized persistence pre-June 2017 release)
- Upgrade a pre-June 2017 site from synchronized to shared persistence
- Configure and manage On-Demand App Generation (ODAG)
- Set up security for mobile devices in environment (including Apple iOS)
- Determine when external load balancers need to be modified and explain the need for sticky sessions, but are NOT expected to modify the load balancers
- Modify clustering software (e.g., Microsoft, Veritas)
- Modify Active Directory users and computer resources
- Modify firewall device rules, third party proxy server (e.g., proxy, reverse proxy) configuration to allow all services to communicate to each other
- Configure custom authentication
- Use the Scalability Center Benchmarking Package
- Stress test the server
- Set up performance counters
- Troubleshoot web pages and extensions
- Integrate APIs into Qlik Sense
- Explain third party security for mobile device
- Ensure disaster recovery plan meets the corporate policy
- Use the pg_hba.conf and postgresql.conf files to troubleshoot the database (and allow other computers to access it)
- Advanced Qlik Sense application development
- Visual Basic or programming languages such as C++, Java, etc.
- OS/Server clustering
- Configure proxy/reverse proxy devices
- Implement third party authentication solutions
- Customization of Qlik Sense ticketing
- Advanced SQL
- Advanced networking
- Modify hardware or software load balancers
- Modify SAN configuration from the customer OS
- How to modify server BIOS settings (able to communicate to server team what settings should be checked or set)
- Changes to configuration of virtual machines and hypervisors

Recommended Reading for Qlik Sense System Administrators

In the Qlik Sense online help, review the topics under "Managing a Qlik Sense site", "Monitoring a Qlik Sense site" and "Troubleshooting Qlik Sense using logs".