



# Qvu Data Service

## Help Documentation

## Table of Contents

Help Documentation.....	1
Overview.....	3
Administration.....	3
Add/Edit a Datasource.....	4
Datasource Entry Fields.....	5
Datasource Table Settings.....	7
Table Column Settings.....	9
Add/Edit a Role.....	10
Add/Edit a User.....	11
Add/Edit a Document Group.....	13
Query Design.....	14
REST API.....	15
System Settings.....	15
Custom Security.....	15
Qvu Repository.....	15
Language Support.....	15

# Overview

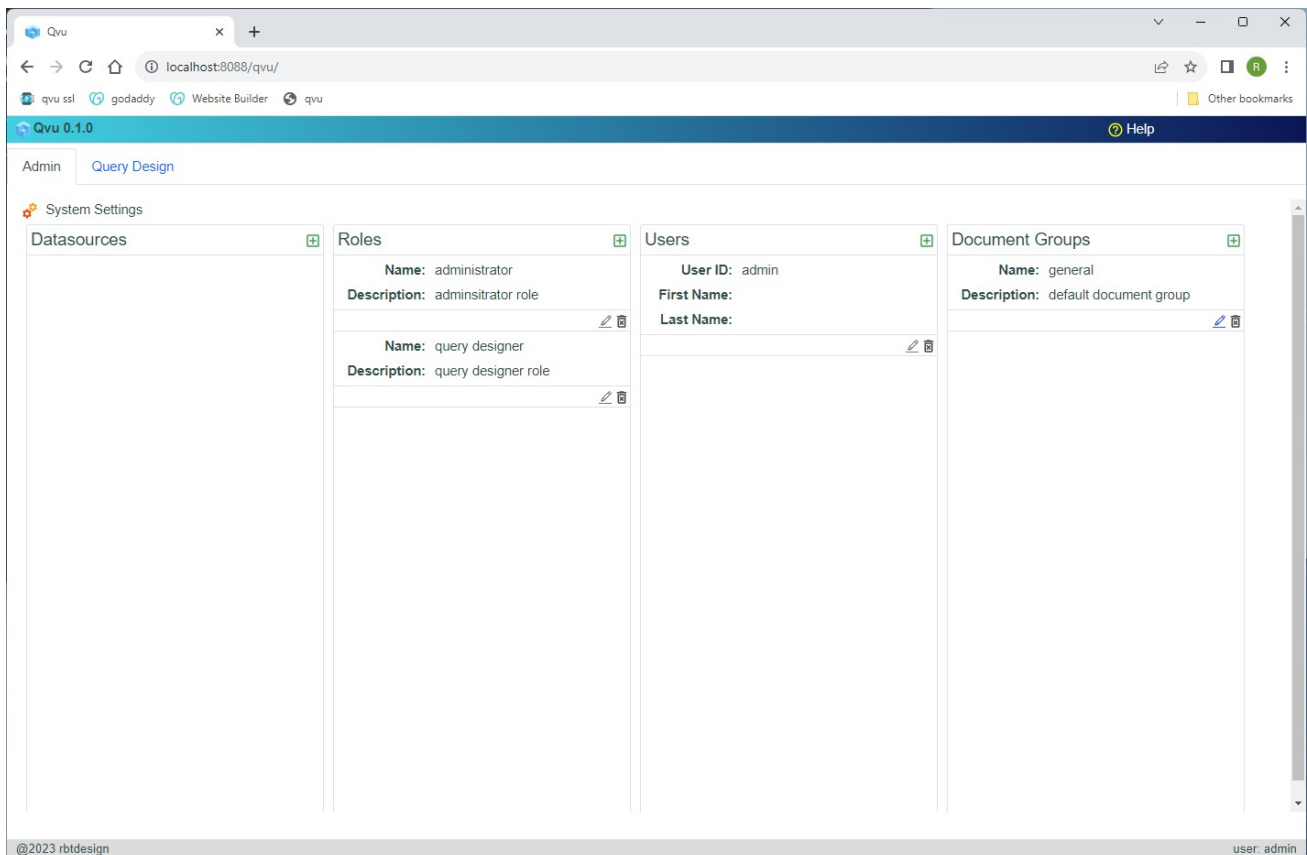
Qvu data service is ad-hoc query and api data service design tool that allows users to create and save query designs in a user-friendly, web-based UI.

Qvu data service also provides a simple rest api for end users and applications to execute saved query documents and return results in tabular or json formatted result sets.

Qvu data service provides role-based database objects access control and supports both basic and OIDC authentication.

# Administration

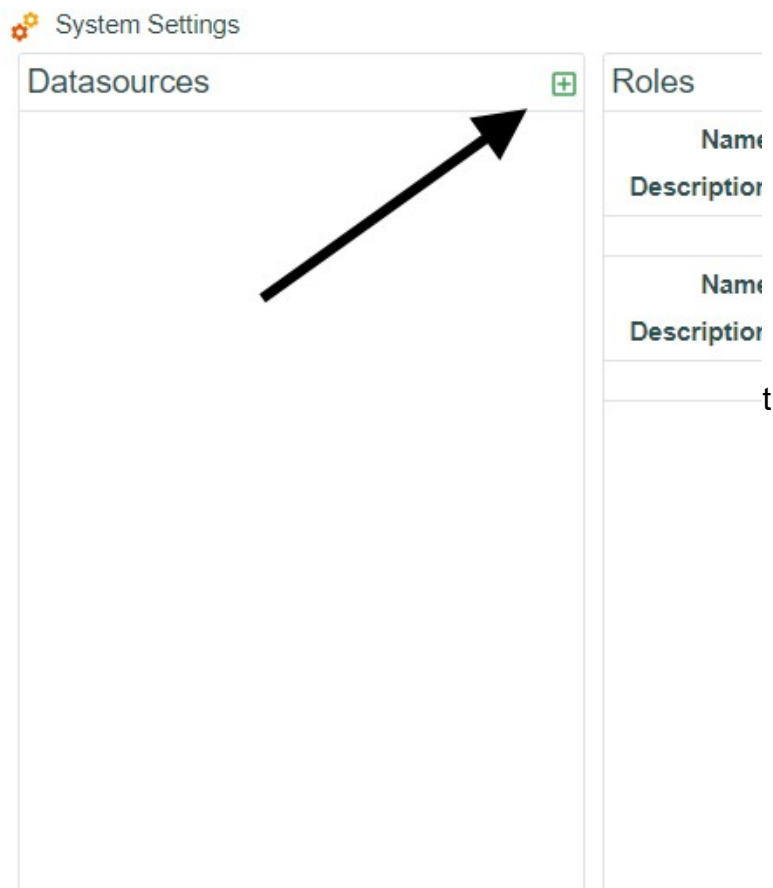
The Qvu Admin tab allows users with the administration role to add and configure datasources, users, roles and report groups as well as configure the desired authentication scheme. After initializing the Qvu repository (see qvu-gettingstarted.pdf), start Qvu and login as the admin user – you should see the screen below:



The initial admin tab will have no datasources, 2 default roles – administrator and query designer and one user – admin.

## Add/Edit a Datasource

To add a datasource, click the add icon on the **Datasources** control :



The **Create new datasource** dialog should display:

Create new datasource

×

\*Database Type:

MySQL

▼

\*Name:

MySQL

Microsoft SQL Server

Oracle

PostgreSQL

Description:

\*JDBC Url:

\*JDBC Driver:

\*Schema

\*User Name:

\*Password:

ⓘ \*Max Imported Key Depth:

2

ⓘ \*Max Exported Key Depth:

4

Connection Timeout:

Idle Timeout:

Max Life Time:

Max Pool Size:

ⓘ Role Access:

Select roles... ▼

\*indicates required field

Table Settings

Custom Foreign Keys

Test Connection

Cancel

Create

Select the desired database type and fill in the required entries. The table below describes each entry field:

## Datasource Entry Fields

Database Type	MySQL, Microsoft SQL Server, Oracle or PostgreSQL
Name	This is the datasource name which will show up in the Datasource selection drop down and be associated with the query document. The name must be unique



Description	A description of this datasource
JDBC Url	The database-specific JDBC URL to connect to the database
JDBC Driver	The JDBC Driver java class name
Schema	The database schema for this datasource
User Name	Database user name to use to connect to the database
Password	User password to use to connect to the database
Max Imported Key Depth	The max depth to recurse through the imported (parent table) foreign key definitions when building table relationships.
Max Exported Key Depth	The depth max depth to recurse through the exported (child table) foreign key definitions when build table relationships
Connection Timeout	the maximum number of milliseconds to wait for a database connection checkout. Defaults to 30000 (30 seconds)
Idle Timeout	Maximum amount of time (in milliseconds) that a connection is allowed to sit idle in the pool. Defaults to 600000 (10 minutes)
Max Life Time	Maximum lifetime (in milliseconds) of a connection in the pool. An in-use connection will never be retired, only when it is closed will it then be removed. Defaults to 1800000 (30 minutes)
Max Pool Size	Maximum size that the connection pool is allowed to reach, including both idle and in-use connections. Basically this value will determine the maximum number of actual connections to the database backend. Defaults to 10.
Role Access	Roles required to access this datasource – no selections indicates datasource is available to all users

To edit an existing datasource click the edit icon – to delete an exiting datasource click the delete icon:

Datasources +

Name: Sakila

Description:



## Datasource Table Settings

A user can customize how datasource tables and columns are displayed in the UI and control user access to tables and columns by role assignment. To modify these setting click the **Table Settings** button to display the **Table Settings** dialog::

Max Pool Size:

② Role Access:

\*indicates require

Table Settings

Cus

?
Table Settings - Sakila
X

Table: actor

Display Name:

Roles:

Select roles... ▼

☐ Hide

Column Settings

Table: actor\_info

Display Name:

Roles:

Select roles... ▼

☐ Hide

Column Settings

Table: address

Display Name:

Cancel

Save

The **Table Settings** dialog will display a list of tables associated with the datasource. For each table the following fields can be set to handle the way the table is presented to the user in the UI:

Display Name	A user friendly name can be entered that will be used in the UI whenever the table is presented to the end user
Roles	Roles can be associated with the table and only users that are members of the selected roles will be able to see the table in the UI. No selection means the table is available to all users.
Hide	When checked the table will not be displayed in the UI for any user.



## Table Column Settings

Click the **Column Settings** button on any table in the Table Settings dialog to configure how the associated columns are displayed in the UI for the table. When clicked the **Column Settings** dialog will display:

Column Settings - actor

Column: actor\_id  
Display Name:   
Roles:   
☐ Hide

Column: first\_name  
Display Name:   
Roles:   
☐ Hide

Column: last\_name  
Display Name:   
Roles:   
☐ Hide

Column: last\_update  
Display Name:   
Roles:   
☐ Hide

Cancel Save

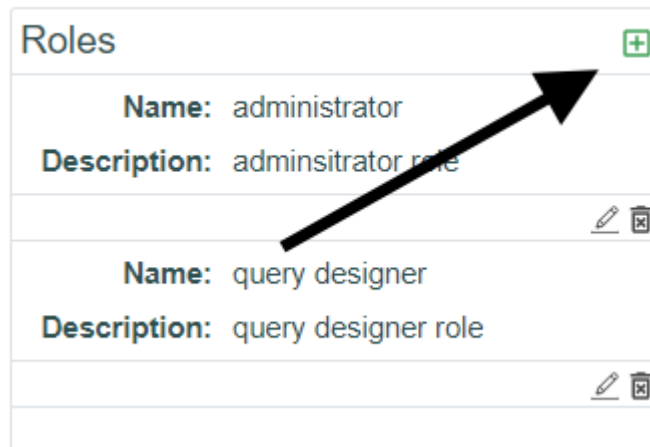
The Column Settings dialog will display a list of columns associated with the table. For each column the following fields can be set to handle the way the column is presented to the user in the UI:

Display Name	A user friendly name can be entered that will be used in the UI whenever the column is presented to the end user
Roles	Roles can be associated with the column and only users that are members of the selected roles will be able to see the column in

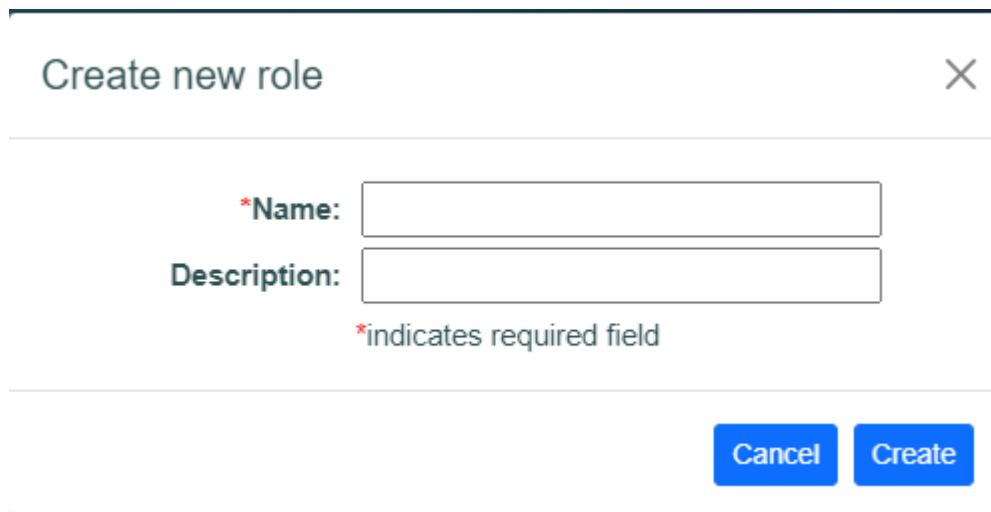
	the UI. No selection means the column is available to all users.
Hide	When checked the column will not be displayed in the UI for any user.

## Add/Edit a Role

To add a new role click the Add icon to display the **Create new Role** dialog::

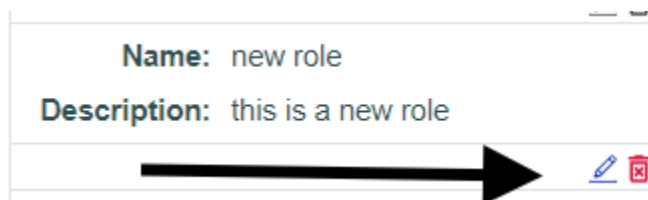


The screenshot shows a list of roles. The first role is 'administrator' with description 'adminsitrator role'. The second role is 'query designer' with description 'query designer role'. A black arrow points from the 'Add' icon (a green square with a white plus sign) in the top right corner of the list to the 'administrator' role entry.








The screenshot shows the 'Create new role' dialog. It has a title bar with 'Create new role' and a close button (X). Below the title bar, there are two input fields: '\*Name:' and 'Description:'. The '\*Name:' field is required, as indicated by the asterisk. Below the input fields, there is a note: '\*indicates required field'. At the bottom right, there are two buttons: 'Cancel' and 'Create'.

To edit/delete a role click the Edit/Delete icon:



The screenshot shows a single role entry. The role is 'new role' with description 'this is a new role'. A black arrow points from the 'Edit/Delete' icon (a blue pencil and a red trash can) in the bottom right corner of the entry to the role entry itself.

There are 2 canned system roles that cannot be edited or deleted – **administrator** and **query designer**. On these roles the edit/delete icons are disabled.

Roles			
<b>Name:</b> administrator			
<b>Description:</b> adminsitrator role			
			
<b>Name:</b> query designer			
<b>Description:</b> query designer role			
			

## Add/Edit a User


Qvu Users are handled a bit differently than other security-related entities. If Qvu is configured to use the local Qvu repository for authentication then a user can be added, edited and deleted.

If authentication is configured to use OIDC, when an authenticated user does not exist in the local Qvu repository that user will be added for user information purposes – authentication will be handled by the OIDC identity provider. A role mapping can be setup to map incoming role claims to the administration role if desired – see the **System Settings** section for more information on this topic.

If the custom authentication plugin is enabled then the custom authentication service is responsible for providing user information and expected roles (administrator and query designer). The user will be read only in the Qvu application.

There is a canned system user – Admin – which cannot be edited or deleted.



To add a new user when Qvu is configured to use local repository authentication click the Add icon to display the Create new User dialog:

Users 

User ID: admin

First Name:

Last Name:

Create new user



\*User ID:

\*Password:

First Name:

Last Name:

Email:

Roles:  

\*Indicates required field

Cancel



Create

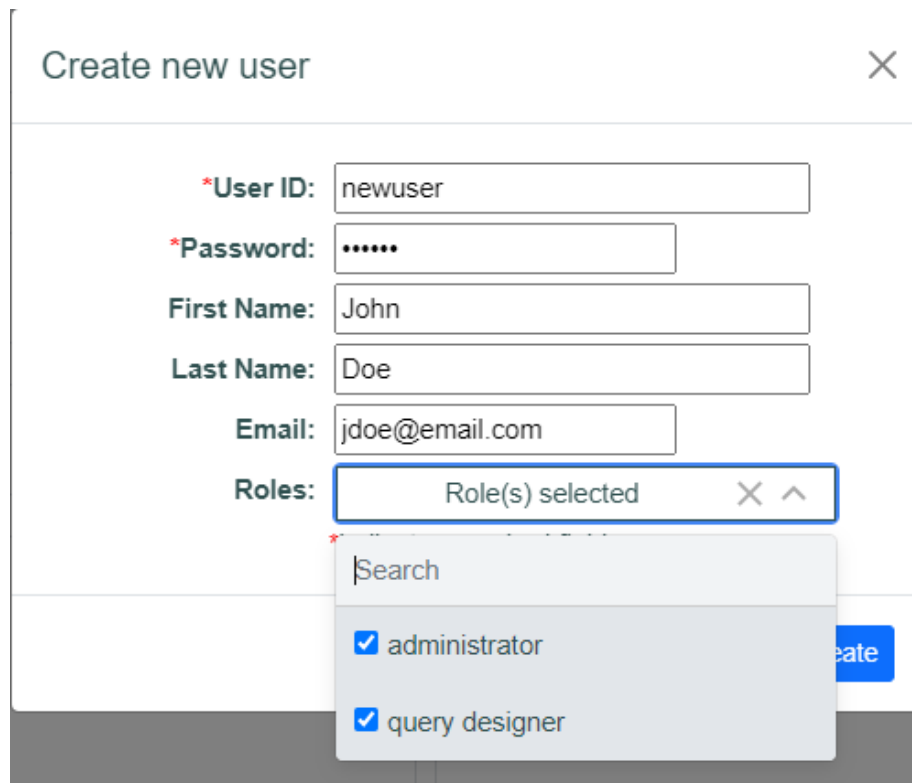
Complete the required and entries and save the user. To assign roles to the user, click the Roles drop down and select the desired roles:

User ID: testuser

First Name: John

Last Name: Doe



The image shows a 'Create new user' dialog box with a close button (X) in the top right corner. The form contains the following fields: 'User ID' with the value 'newuser', 'Password' with masked characters '.....', 'First Name' with 'John', 'Last Name' with 'Doe', and 'Email' with 'jdoe@email.com'. The 'Roles' field is a dropdown menu currently showing 'Role(s) selected' and is highlighted with a blue border. A dropdown menu is open below it, showing a search bar and two checked options: 'administrator' and 'query designer'. A blue 'Create' button is partially visible on the right side of the dialog.

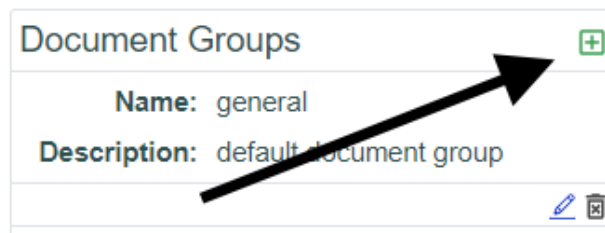
User passwords are stored locally as an md5 hash of the entered passwords. See the **Qvu Repository** section for more information.

To edit/delete a user when enabled click the Edit/Delete icon:

## Add/Edit a Document Group

When query documents are saved they must be assigned a document group. A canned, default document group **general** is always available and cannot be edited or deleted. Additional document groups can be created as desired.

To add and new Document Group click the Add icon to display the **Create new Group** dialog:



The image shows a 'Document Groups' list. It contains one entry with 'Name: general' and 'Description: default document group'. A black arrow points from the bottom of this entry to a green plus icon (+) in the top right corner of the list, which is used to add a new group. At the bottom right of the list, there are icons for editing (pencil) and deleting (trash).

Create new group ×

---

\*Name:

Description:

Roles:

Select roles... ▼

\*indicates required field

---

Cancel

Create

Enter the required fields – the name must be unique. Roles can be assigned to a document group. Only users that are members of the selected roles will be able to see the documents in the group. If no role is selected, all users can access the documents in the group.

To edit/delete a document group click the Edit/Delete icon:

Name: new group
Description: this is a new group
<div><div></div><div></div></div>

If a document group is deleted all the documents in that group will also be deleted. A query document can be assigned a new document group. See **Saving a Query Document** for more information on this topic.

## Query Design

**REST API**

**System Settings**

**Custom Security**

**Qvu Repository**

**Language Support**