

Managing instances of IBM Bluemix DBaaS services

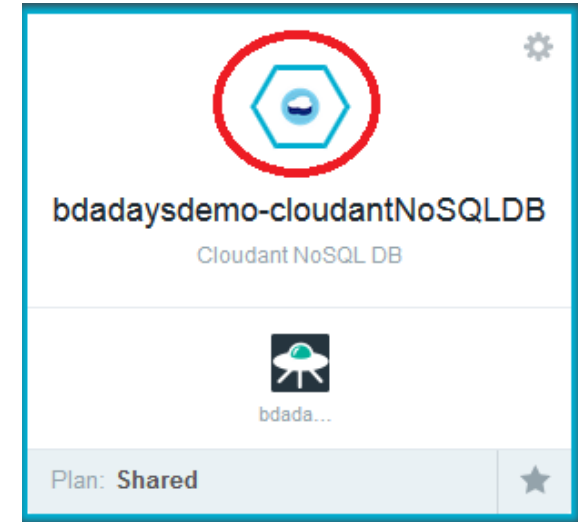


After you complete this unit, you should understand:

- The tools that you can use to manage the following DBaaS services in IBM Bluemix:
 - Cloudbant NoSQL DB
 - dashDB
 - SQL Database

Cloudant NoSQL DB Dashboard

- Launched from the service icon's hexagon
- Uses the Cloudant API to provide the following capabilities:
 - Create and delete databases
 - Create, read, update, and delete data
 - Manage permissions and active tasks
 - Replicate or share databases



Cloudant Dashboard

Cloudant animaldb API URL +

Databases Docs New Database

Replication All documents

Active Tasks All design docs

Documentation + New

views101 / latin_name_jssum

views101 / latin_name

views101 / diet_sum

views101 / diet_count

views101 / complex_count

views101 / diet

views101 / complex_latin_name_count

views101 / diet_jscount

views101 / latin_name_count

views101 / latin_name_sum

Support

Account

Logout education

SECONDARY INDEXES

+ New

SEARCH INDEXES

+ New

+ Query Options Document ID

✓ All Collapse

Showing 1 - 11 of 11 rows

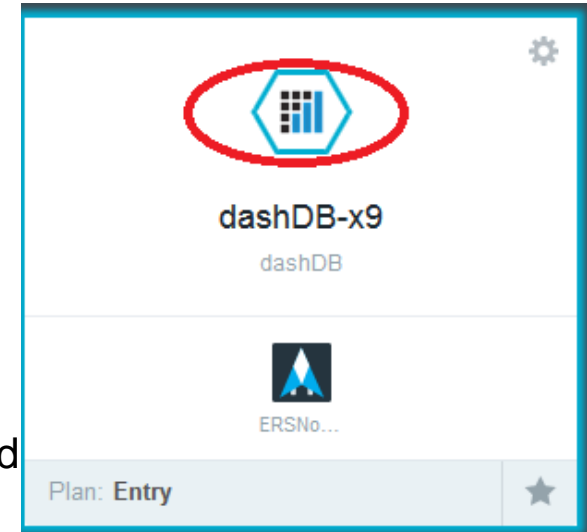
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}

☐ {
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}

dashDB Console

- Launched from the service icon's hexagon
- Provides the following capabilities:
 - Load
 - Load data into dashDB from your workstation, cloud storage, other databases, or from on-premises servers
 - Work with tables
 - Browse your dashDB data by drilling down into the tables, rows, and columns
 - Run SQL
 - Run SQL queries to locate or identify specific information in your data
 - Analytics with R
 - Run R Scripts to develop statistical models and plot their results based on dashDB data
 - Provides an integrated RStudio environment that you can use to develop R scripts and analyze your data



dashDB Console

IBM dashDB™

0% dashDB-v9 carew@us.ibm.com

Home
Tables
Load >
Run SQL
Analytics >
Monitor >
Settings >
Connect >
Help >

Welcome. Your database is ready.

Welcome to IBM dashDB. You can load your data, run SQL queries against the data, and use tools to explore predictive analysis and in-database analytics. Sample data is already loaded. Start exploring the power of dashDB!

[Load your data](#) [Go to your tables](#)

Work Faster

IBM dashDB is the premiere cloud

dashDB Console: Running R Scripts

Run R scripts to analyze, manipulate, and visualize your data

Create a new script, import a script, or use a sample script. [Learn more](#)

RStudio

Import

Sample Projects

In-Application Analytics

Customer Acquisition

Customer Churn

Customer Winback

Server Memory Usage

In-Database Analytics

Server Memory Usage

Customer Segmentation (k-means)

Customer Churn (naive Bayes)

Market Basket Analysis

Data Visualization

Education Level by Gender

Veteran Status by Gender

Class of Worker

My Projects

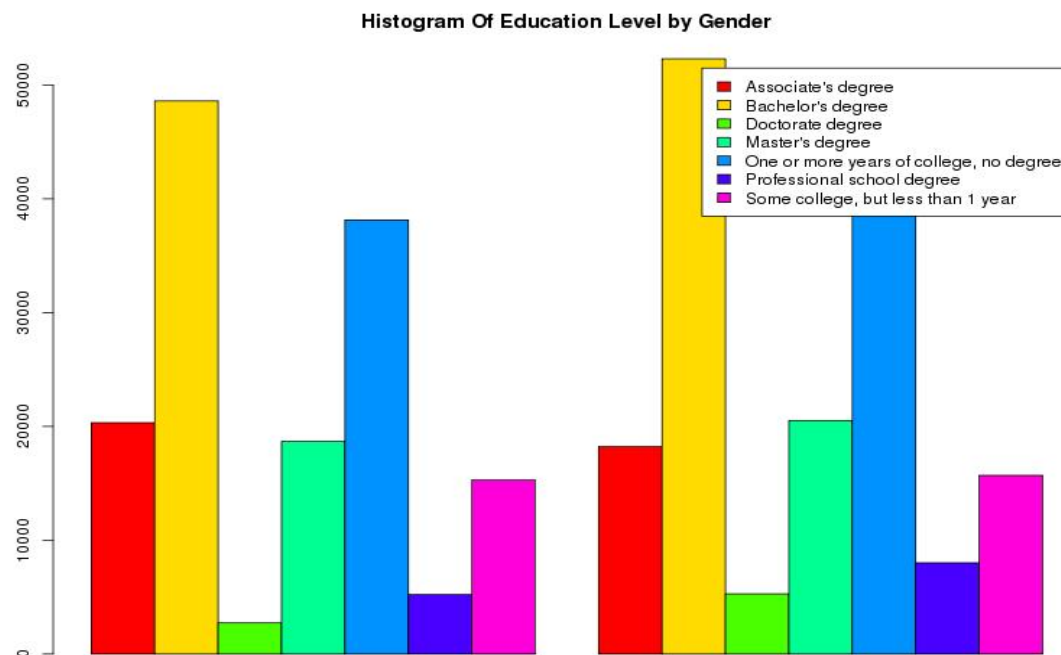
[Learn More](#)

Script Name: Education Level by Gender

Description: This sample shows how to use R visualization to understand how the education level is distributed among males and females.

Click **Submit** to generate a plot. Errors, warnings, or messages are sent to the Console Output page.

[Script](#) [Console Output](#) [Plots](#)



dashDB Console: Running RStudio

The screenshot shows the dashDB Console interface with RStudio running in a web browser. The console output shows the following steps:

```
Content type 'application/x-gzip' length 39037 bytes (38 Kb)
opened URL
downloaded 38 Kb

trying URL 'http://cran.rstudio.com/src/contrib/waveslim_1.7.5.tar.gz'
Content type 'application/x-gzip' length 716496 bytes (699 Kb)
opened URL
downloaded 699 Kb

trying URL 'http://cran.rstudio.com/src/contrib/nonlinearTseries_0.2.1.tar.gz'
Content type 'application/x-gzip' length 124872 bytes (121 Kb)
opened URL
downloaded 121 Kb

trying URL 'http://cran.rstudio.com/src/contrib/RHRV_4.0.tar.gz'
Content type 'application/x-gzip' length 3138947 bytes (3.0 Mb)
opened URL
downloaded 3.0 Mb

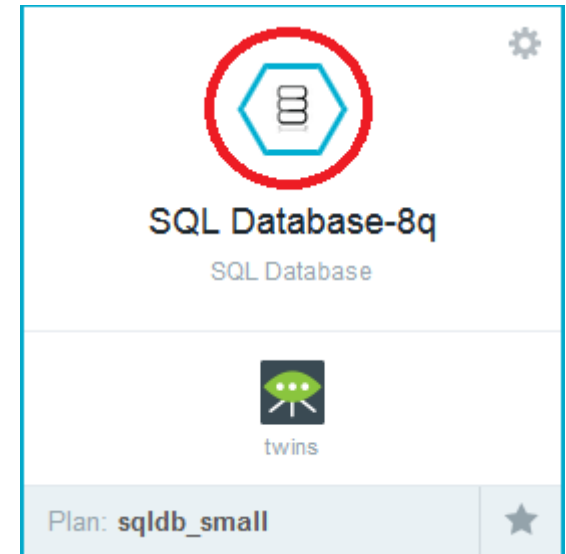
Loading required package: RODBC
Loading required package: ibmdbcR
Loading required package: MASS
Loading required package: grDevices
Loading required package: graphics
Loading required package: stats
Loading required package: utils
* installing *source* package 'Matrix' ...
** package 'Matrix' successfully unpacked and MD5 sums checked
** libs
gcc -m64 -std=gnu99 -I/usr/include/R -DNDEBUG -DNTIMER -I./SuiteSparse_config -I/usr/local/in
clude -fpic -O2 -g -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --p
aram=ssp-buffer-size=4 -m64 -mtune=generic -c CHMfactor.c -o CHMfactor.o
gcc -m64 -std=gnu99 -I/usr/include/R -DNDEBUG -DNTIMER -I./SuiteSparse_config -I/usr/local/in
clude -fpic -O2 -g -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --p
aram=ssp-buffer-size=4 -m64 -mtune=generic -c Csparse.c -o Csparse.o
gcc -m64 -std=gnu99 -I/usr/include/R -DNDEBUG -DNTIMER -I./SuiteSparse_config -I/usr/local/in
clude -fpic -O2 -g -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --p
```

The Environment pane on the right shows the Global Environment is empty. The Packages pane on the right lists the following packages:

Files	Plots	Packages	Help	Viewer
<input checked="" type="checkbox"/>		arules	Mining Association Rules and Frequent Itemsets	1.1-6
<input type="checkbox"/>		arulesViz	Visualizing Association Rules and Frequent Itemsets	1.0-0
<input type="checkbox"/>		bitops	Bitwise Operations	1.0-6
<input type="checkbox"/>		caTools	Tools: moving window statistics, GIF, Base64, ROC AUC, etc.	1.17.1
<input type="checkbox"/>		cluster	Cluster Analysis Extended Rousseeuw et al.	2.0.1
<input type="checkbox"/>		colorspace	Color Space Manipulation	1.2-4
<input checked="" type="checkbox"/>		compiler	The R Compiler Package	3.2.0
<input checked="" type="checkbox"/>		datasets	The R Datasets Package	3.2.0
<input type="checkbox"/>		dichromat	Color Schemes for Dichromats	2.0-0
<input type="checkbox"/>		digest	Create cryptographic hash digests of R objects	0.6.4
<input type="checkbox"/>		gclus	Clustering Graphics	1.3.1
<input type="checkbox"/>		gdata	Various R Programming Tools for Data Manipulation	2.16.1
<input type="checkbox"/>		ggplot2	An implementation of the Grammar of Graphics	1.0.0
<input type="checkbox"/>		googleVis	R Interface to Google Charts	0.5.8
<input type="checkbox"/>		gplots	Various R Programming Tools for Plotting Data	2.17.0
<input checked="" type="checkbox"/>		graphics	The R Graphics Package	3.2.0

SQL Database Console

- Launched from the service icon's hexagon
- Provides the following capabilities:
 - Manage
 - Work with database objects
 - View existing database objects, modify and create new database objects, and run queries
 - Load Data
 - Load data from external sources
 - Backup Data
 - Back up databases
 - Restore Data
 - Restore databases
 - Monitor
 - Connections
 - View all connections to the database
 - Data Privacy
 - View data privacy reports generated by Guardium that show objects that contain sensitive data or activity that occurs on sensitive data
 - SQL Statements
 - View previously executed SQL statements
 - Database Storage
 - View the list of table spaces and their status



SQL Database Console: Landing page

Summary

- In this unit, you learned about the tools available to manage the following DBaaS services in IBM Bluemix:
 - Cloudbant NoSQL Database service
 - Web-based dashboard built on of Cloudbant API
 - dashDB service
 - Web-based console that manages data import, database management, and analytics by using R
 - SQL database service
 - Web-based console enables database management and monitoring capabilities