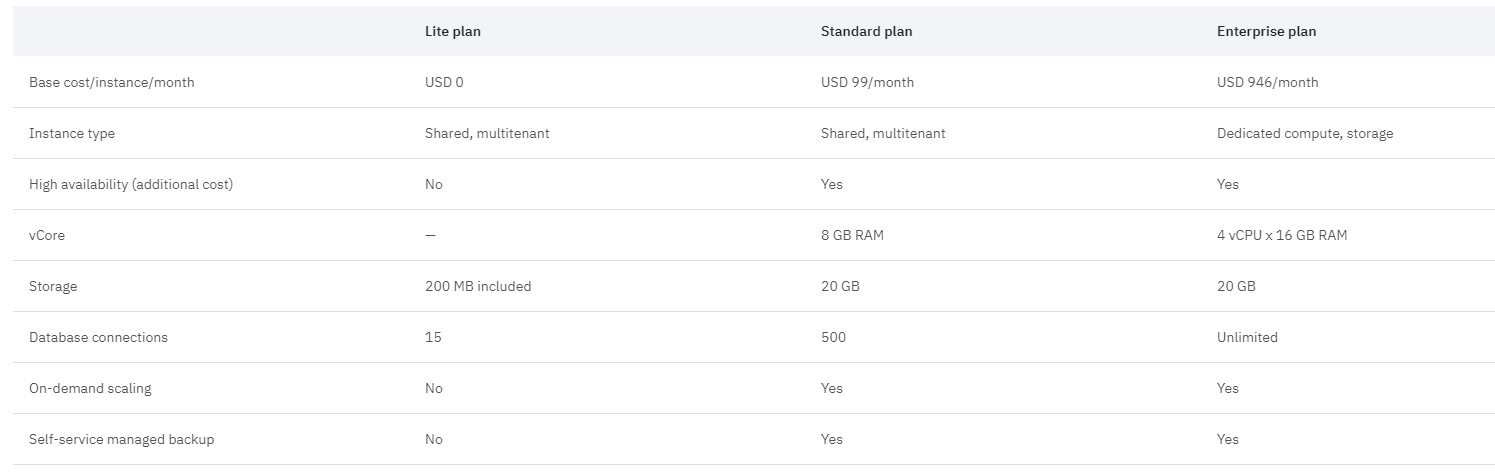
**1. DB2 on Cloud overview**  
  
**Summary**  
A fully managed, highly-performant relational data store running the enterprise-class Db2 database engine.  
  
**Features**  
Fully managed, Db2 database as a service  
Leave the IT work to the experts. Our worldwide team of CloudOps engineers ensures service coverage 24x7x365.  
  
**Enterprise-class Db2**  
Built to take on the toughest mission critical workloads on the planet with advanced features like adaptive workload management, time travel query, query federation, in-database AI, row/column access control, auditing, and support for JSON, XML, and geospatial data sets.  
  
**Scalable & elastic**  
Independently scale and manage the compute and storage requirements for your deployment. Need more storage? It’s a click or API call away.  
  
**Highly available**  
Available in 3-node high-availability configuration within a multi-zone region, delivering a 99.99% uptime committed SLA.  
  
**Highly reliable**  
Self-service managed backups to object storage with point-in-time recovery, allowing you to restore your database to a specified time.  
  
**Secure, top to bottom**  
All your data is encrypted in motion and at rest.  
  
**2. Create your own instance**  
  
<https://cloud.ibm.com/catalog/services/db2>  
  
- Pricing plans

<https://www.ibm.com/cloud/db2-on-cloud/pricing>



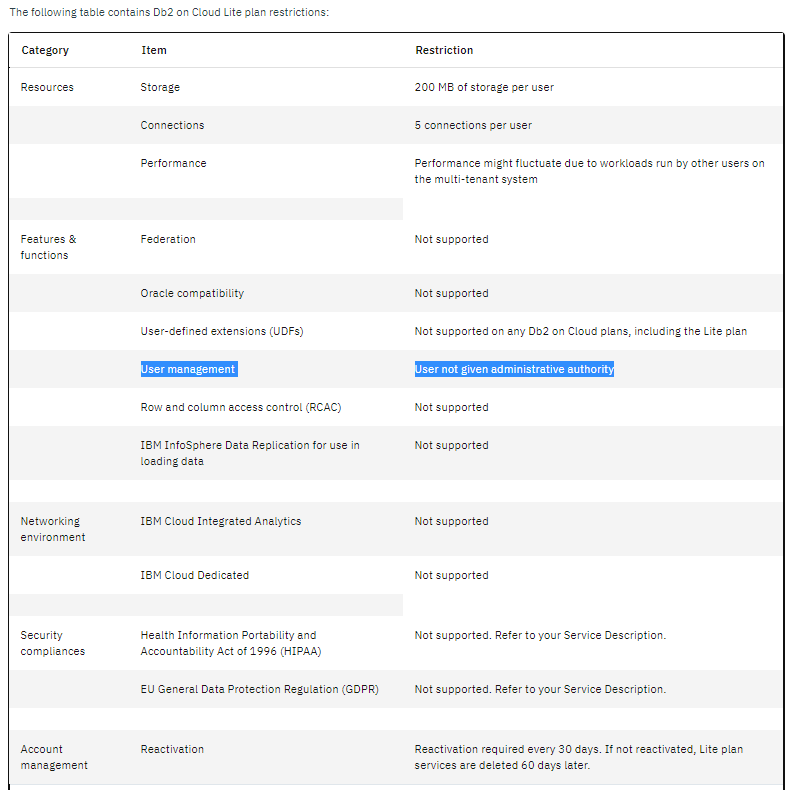
Free Lite plan restrictions - The Lite plan is available in the Dallas and London regions.

200 MB of data storage

15 simultaneous connections

Not possible to add schemas

Not possible to add users, existing one is not admin



The Free plan provides a free Db2 service for development and evaluation. The plan has a set amount of limitations as shown. You can continue using the free plan for as long as needed, but:

After you create a Lite instance, you have 30 days before the next reactivation.

After 33 days, your Lite plan is disabled, but IBM Cloud still has your data. You can still reactivate.

After 60 days have passed, if you haven't reactivated, your data will be deleted.

Each time you reactivate, the day counter resets, and you'll have another 30 days before being disabled (and 60 days before deletion).

https://cloud.ibm.com/docs/Db2onCloud?topic=Db2onCloud-faq\_db2oc\_lite  
  
  
**3. Create credentials**  
  
Service credentials – New credential

{

"db": "BLUDB",

"dsn": "DATABASE=BLUDB;HOSTNAME=dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net;PORT=50000;PROTOCOL=TCPIP;UID=vbn82749;PWD=\*\*\*\*\*\*\*\*;",

"host": "dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net",

"hostname": "dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net",

"https\_url": "https://dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net:8443",

"jdbcurl": "jdbc:db2://dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net:50000/BLUDB",

"parameters": {

"role\_crn": "crn:v1:bluemix:public:iam::::serviceRole:Manager"

},

"password": "",

"port": 50000,

"ssldsn": "DATABASE=BLUDB;HOSTNAME=dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net;PORT=50001;PROTOCOL=TCPIP;UID=vbn82749;PWD=\*\*\*\*\*\*\*\*\*\*\*\*;Security=SSL;",

"ssljdbcurl": "jdbc:db2://dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net:50001/BLUDB:sslConnection=true;",

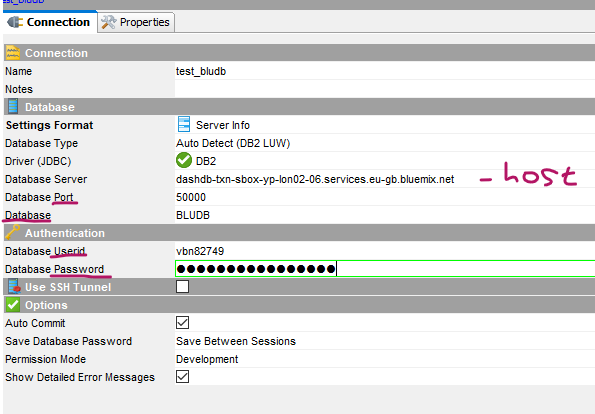
"uri": "db2://vbn82749:\*\*\*\*\*\*\*\*\*\*\*\*\* @dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net:50000/BLUDB",

"username": "vbn82749"

}

**4. Connect from desktop client**

"dsn": "DATABASE=BLUDB;HOSTNAME=dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net;PORT=50000;PROTOCOL=TCPIP;UID=vbn82749;PWD=\*\*\*\*\*\*\*\*\*;"



**5. IBM Db2 on Cloud Console Overview**

https://’hostname’ /console/

<https://dashdb-txn-sbox-yp-lon02-06.services.eu-gb.bluemix.net/console/>

Load TRAFFIC table from Traffic\_Collision\_Data\_from\_2010\_to\_Present-11.csv

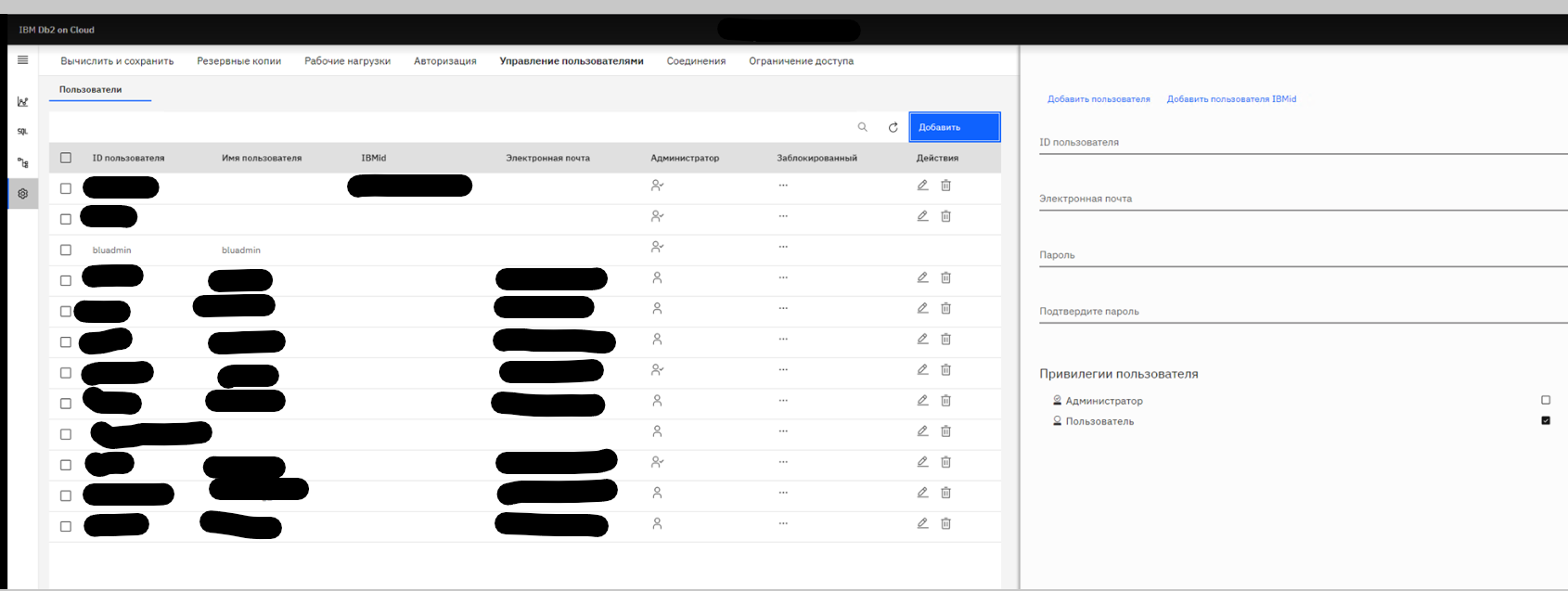
**6. How to create a new user and grant table privileges to him**

Not available for Free plan

For paid :

1) Go to the bludb console and login with the "bluadmin" id and password for this user.

2) Create new user "testuser" as User. By default, non-admin user has access only to the tables in SYSIBM definer's schemas.

****

3) choose RUN SQL.

4) Create table TESTITEM under schema TEST by command: "CREATE TABLE TEST.TESTITEM(x int);". Press "Run all".

5) Grant SELECT table privileges on TEST.TESTITEM to the user "testuser". To do that replace previous command in the editor with the new one: "GRANT SELECT ON TEST.TESTITEM TO USER TESTUSER;" and run it.

**7. How to monitor connections to db**

It is possible to track application connections with particular auth\_id by creating db2 connection Event Monitor.   
Basically results are stored in DB2 tables and you need to query them to get results.  
  
Also it is important to keep in mind that DB2 caches latest metrics and flushes it into tables when the buffer is full or when you explicitly run "flush" command.

The privileges held by the authorization ID of the CREATE EVENT MONITOR statement must include one of the following:

DBADM authority

SQLADM authority  
  
**Event monitor for user ‘CSP’ connections was created by next command:**  
  
CREATE EVENT MONITOR csp\_check  
FOR CONNECTIONS  
WHERE AUTH\_ID = ‘CSP’  
WRITE TO TABLE CONNHEADER(TABLE cspmonitor.connheader),  
CONN(TABLE cspmonitor.conn INCLUDES(AGENT\_ID, DISCONN\_TIME)),  
CONTROL(TABLE cspmonitor.control)  
AUTOSTART;  
  
The following tables in cspmonitor schema were created by the command:  
  
1) CONNHEADER - it includes all existing monitor data about application connections for the CSP user  
2) CONN - to check disconnection time for connections:  
AGENT\_ID A system-wide unique ID for the application  
DISCONN\_TIME The date and time that the application disconnected from the database.  
3) CONTROL - to check info about the event monitor.  
  
AUTOSTART param is set to ensure that the event monitor is started each time that the database is started.  
  
**Event monitor commands:**  
  
**Run this to activate monitor first time after creation and after its deactivation if needed:**  
SET EVENT MONITOR csp\_check STATE 1;  
  
**Run to immediately refresh table output for the event monitor (the data in tables refreshes automatically only when the buffer is full):**  
FLUSH EVENT MONITOR csp\_check BUFFER;  
  
**Run this to deactivate monitor:**  
SET EVENT MONITOR csp\_check STATE 0;  
  
**After deactivation you can drop the event monitor:**  
DROP EVENT MONITOR csp\_check;

**8. Differences between preconfigured configuration parameters for Db2 on Cloud and IBM Db2**

See in the excel file db\_config\_compare.xls

**9. Using Db2 external tables to load data from COS**

Not available for Free plan

<http://www.db2dean.com/Previous/ExternalTables1.html>

INSERT INTO <table-name> SELECT \* FROM EXTERNAL '<mys3file.txt>' USING

(CCSID 1208 s3('s3-api.us-geo.objectstorage.softlayer.net',

'<S3-access-key-ID>',

'<S3-secret-access-key>',

'<my\_bucket>'

)

)

[https://cloud.ibm.com/docs/Db2whc?topic=Db2whc-load\_cos](https://cloud.ibm.com/docs/Db2whc?topic=Db2whc-load_cos" \t "_blank)  
<https://www.ibm.com/support/knowledgecenter/SSEPGG_11.5.0/com.ibm.db2.luw.sql.ref.doc/doc/r_create_ext_table.html>  
<https://www.ibm.com/cloud/garage/dte/tutorial/db2-115-external-tables-hands-lab/>

Example:

see CSV in folder

CREATE EXTERNAL TABLE cos\_external ( value1 varchar(32), value2 varchar(32))

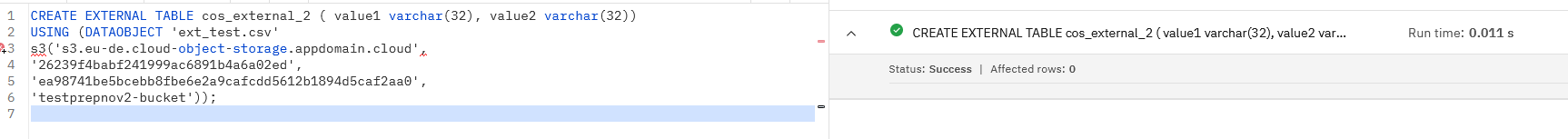
USING (DATAOBJECT 'ext\_test.csv'

s3('s3.eu-de.cloud-object-storage.appdomain.cloud',

'5946c9b0cc1542ff8f024a91fdc77b09',

'0d44e0a28a250d4755cc8a39093ef71cb21ac7fa4ca5dd41',

'33testcos2021'));



Начало формы

Конец формы