**﻿djcelery Error**

To migrate data from old release (Ginkgo) to new release (Hawthorn), we need to drop the database tables used by djcelery. These tables should be empty in Ginkgo data, so it is safe to drop them. The edx-platform application has a management command to check that they are empty and drop them. While dropping the database tables used by djcelery using the management command, errors were received due to the foreign key constraint and some missing tables on the Hawthon.2 and Ironwood.master machine in the development environment.

**On the Hawthorn machine:**

edx@edx:~$ sudo su - -s /bin/bash edxapp

[sudo] password for edx:

edxapp@edx:~$ . edxapp\_env

edxapp@edx:~$ cd edx-platform/

edxapp@edx:~/edx-platform$ python manage.py lms drop\_djcelery\_tables --settings=aws

2021-06-02 01:42:03,359 INFO 16272 [dd.dogapi] dog\_stats\_api.py:66 - Initializing dog api to use statsd: localhost, 8125

2021-06-02 01:42:09,300 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:51 - Acquiring tables locks on `djcelery\_periodictask`, `djcelery\_taskstate`, `djcelery\_periodictasks`, `djcelery\_workerstate`, `djcelery\_intervalschedule`, `djcelery\_crontabschedule`, `celery\_taskmeta`, `celery\_tasksetmeta`

2021-06-02 01:42:09,302 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:45 - table lock raw SQL:

LOCK TABLES `djcelery\_periodictask` WRITE, `djcelery\_taskstate` WRITE, `djcelery\_periodictasks` WRITE, `djcelery\_workerstate` WRITE, `djcelery\_intervalschedule` WRITE, `djcelery\_crontabschedule` WRITE, `celery\_taskmeta` WRITE, `celery\_tasksetmeta` WRITE

2021-06-02 01:42:10,480 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:62 - Tables are confirmed empty and I hold a lock on all of them, proceeding to DROP TABLE

2021-06-02 01:42:10,481 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:45 - drop `djcelery\_periodictask` raw SQL:

DROP TABLE IF EXISTS `djcelery\_periodictask` CASCADE

2021-06-02 01:42:11,110 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:45 - drop `djcelery\_taskstate` raw SQL:

DROP TABLE IF EXISTS `djcelery\_taskstate` CASCADE

2021-06-02 01:42:11,199 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:45 - drop `djcelery\_periodictasks` raw SQL:

DROP TABLE IF EXISTS `djcelery\_periodictasks` CASCADE

2021-06-02 01:42:11,267 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:45 - drop `djcelery\_workerstate` raw SQL:

DROP TABLE IF EXISTS `djcelery\_workerstate` CASCADE

2021-06-02 01:42:11,311 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:45 - drop `djcelery\_intervalschedule` raw SQL:

DROP TABLE IF EXISTS `djcelery\_intervalschedule` CASCADE

2021-06-02 01:42:11,380 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:45 - drop `djcelery\_crontabschedule` raw SQL:

DROP TABLE IF EXISTS `djcelery\_crontabschedule` CASCADE

2021-06-02 01:42:11,563 INFO 16272 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:45 - drop `celery\_taskmeta` raw SQL:

DROP TABLE IF EXISTS `celery\_taskmeta` CASCADE

Traceback (most recent call last):

File "manage.py", line 121, in <module>

execute\_from\_command\_line([sys.argv[0]] + django\_args)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/core/management/\_\_init\_\_.py", line 364, in execute\_from\_command\_line

utility.execute()

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/core/management/\_\_init\_\_.py", line 356, in execute

self.fetch\_command(subcommand).run\_from\_argv(self.argv)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/core/management/base.py", line 283, in run\_from\_argv

self.execute(\*args, \*\*cmd\_options)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/core/management/base.py", line 330, in execute

output = self.handle(\*args, \*\*options)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/celery\_utils/management/commands/drop\_djcelery\_tables.py", line 66, in handle

self.\_log\_execute(cursor, drop\_sql, "drop {}".format(table\_name))

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/celery\_utils/management/commands/drop\_djcelery\_tables.py", line 46, in \_log\_execute

cursor.execute(sql)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/db/backends/utils.py", line 64, in execute

return self.cursor.execute(sql, params)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/db/utils.py", line 94, in \_\_exit\_\_

six.reraise(dj\_exc\_type, dj\_exc\_value, traceback)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/db/backends/utils.py", line 62, in execute

return self.cursor.execute(sql)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/db/backends/mysql/base.py", line 101, in execute

return self.cursor.execute(query, args)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/MySQLdb/cursors.py", line 205, in execute

self.errorhandler(self, exc, value)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/MySQLdb/connections.py", line 36, in defaulterrorhandler

raise errorclass, errorvalue

django.db.utils.IntegrityError: (1217, 'Cannot delete or update a parent row: a foreign key constraint fails')

edxapp@edx:~/edx-platform$ exit

logout

**On the Ironwood machine:**

edx@edx:~$ sudo su - -s /bin/bash edxapp

[sudo] password for edx:

edxapp@edx:~$ . edxapp\_env

edxapp@edx:~$ cd edx-platform/

edxapp@edx:~/edx-platform$ python manage.py lms drop\_djcelery\_tables --settings=aws

WARNING:py.warnings:/edx/app/edxapp/edx-platform/lms/djangoapps/courseware/\_\_init\_\_.py:5: DeprecationWarning: Importing 'lms.djangoapps.courseware' as 'courseware' is no longer supported

warnings.warn("Importing 'lms.djangoapps.courseware' as 'courseware' is no longer supported", DeprecationWarning)

WARNING:root:DEPRECATION WARNING: aws.py has been deprecated, you should use production.py instead.

2021-06-02 01:51:49,702 WARNING 31961 [enterprise.utils] utils.py:50 - Could not import Registry from third\_party\_auth.provider

2021-06-02 01:51:49,703 WARNING 31961 [enterprise.utils] utils.py:51 - cannot import name \_LTI\_BACKENDS

2021-06-02 01:52:00,966 INFO 31961 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:51 - Acquiring tables locks on `djcelery\_periodictask`, `djcelery\_taskstate`, `djcelery\_crontabschedule`, `celery\_tasksetmeta`, `djcelery\_workerstate`, `djcelery\_periodictasks`, `celery\_taskmeta`, `djcelery\_intervalschedule`

2021-06-02 01:52:00,966 INFO 31961 [celery\_utils.management.commands.drop\_djcelery\_tables] drop\_djcelery\_tables.py:45 - table lock raw SQL:

LOCK TABLES `djcelery\_periodictask` WRITE, `djcelery\_taskstate` WRITE, `djcelery\_crontabschedule` WRITE, `celery\_tasksetmeta` WRITE, `djcelery\_workerstate` WRITE, `djcelery\_periodictasks` WRITE, `celery\_taskmeta` WRITE, `djcelery\_intervalschedule` WRITE

Traceback (most recent call last):

File "manage.py", line 123, in <module>

execute\_from\_command\_line([sys.argv[0]] + django\_args)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/core/management/\_\_init\_\_.py", line 364, in execute\_from\_command\_line

utility.execute()

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/core/management/\_\_init\_\_.py", line 356, in execute

self.fetch\_command(subcommand).run\_from\_argv(self.argv)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/core/management/base.py", line 283, in run\_from\_argv

self.execute(\*args, \*\*cmd\_options)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/core/management/base.py", line 330, in execute

output = self.handle(\*args, \*\*options)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/celery\_utils/management/commands/drop\_djcelery\_tables.py", line 58, in handle

self.\_log\_execute(cursor, lock\_sql, 'table lock')

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/celery\_utils/management/commands/drop\_djcelery\_tables.py", line 46, in \_log\_execute

cursor.execute(sql)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/db/backends/utils.py", line 64, in execute

return self.cursor.execute(sql, params)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/db/utils.py", line 94, in \_\_exit\_\_

six.reraise(dj\_exc\_type, dj\_exc\_value, traceback)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/db/backends/utils.py", line 62, in execute

return self.cursor.execute(sql)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/django/db/backends/mysql/base.py", line 101, in execute

return self.cursor.execute(query, args)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/MySQLdb/cursors.py", line 205, in execute

self.errorhandler(self, exc, value)

File "/edx/app/edxapp/venvs/edxapp/local/lib/python2.7/site-packages/MySQLdb/connections.py", line 36, in defaulterrorhandler

raise errorclass, errorvalue

django.db.utils.ProgrammingError: (1146, "Table 'edxapp.djcelery\_periodictask' doesn't exist")

edxapp@edx:~/edx-platform$ exit

logout

**Solution:**

To avoid the errors, we tried a solution which is described below

* 1. Restore all djcelery tables
  2. Set the foreign key constraint OFF of MySQL database.
  3. Run the management command provided by OpenedX to drop the database tables used by djcelery.
  4. Set the foreign key constraint ON of MySQL database.

The solutions mentioned above are explained below

1. Restore all the djcelery tables:

*#To restore all djcelery tables, Copy the file “iitbombayxdbupgrade/Dump/Data/celery\_tables.sql” from the git directory of the remote machine, to Gingko machine and run following commands*

***scp -r <user\_remote\_machine>@<IP\_remote\_machine>:<path\_of\_celery\_tables\_file> .***

***mysql -uroot -p < celery\_tables.sql***

The below steps are used for migrating the restore data for the Single-Instance machine in the development environment. For migrating to the live-production- data in a distributed instance in the production environment refer to the points mentioned at the end of this subsection.

1. Before dropping djcelery tables, set FOREIGN\_KEY\_CHECKS to OFF in MySQL.

***mysql -uroot -p***

***select @@global.FOREIGN\_KEY\_CHECKS;***

***select @@FOREIGN\_KEY\_CHECKS;***

***SET global FOREIGN\_KEY\_CHECKS=0;***

***SET FOREIGN\_KEY\_CHECKS=0;***

***select @@global.FOREIGN\_KEY\_CHECKS;***

***select @@FOREIGN\_KEY\_CHECKS;***

***exit***

1. The edx-platform application has a management command to check that they are empty and drop them:

***sudo su - -s /bin/bash edxapp***

***. edxapp\_env***

***cd edx-platform/***

***python manage.py lms drop\_djcelery\_tables --settings=aws***

***exit***

1. Reset the foreign key constraint of MySQL database.

***mysql -uroot -p***

***SET global FOREIGN\_KEY\_CHECKS=1;***

***SET FOREIGN\_KEY\_CHECKS=1;***

***select @@global.FOREIGN\_KEY\_CHECKS;***

***select @@FOREIGN\_KEY\_CHECKS;***

***exit***