

# Convert MySQL from UTF8 to UTF8mb4\_bin

I could not upgrade my work Confluence 7.19.X anymore, because the MySQL 8.x underneath was UTF-8 only.

So I found <https://dba.stackexchange.com/questions/8239/how-to-easily-convert-utf8-tables-to-utf8mb4-in-mysql-5-5> - to whom the credit should go.

First - after stopping Confluence, snapshotting, backup etc:

I ran:

```
mysql -u root -p -s < gen_queries.sql > queries.sql
```

where the gen\_queries.sql is:

```
USE information_schema;
SELECT CONCAT("ALTER DATABASE `",table_schema,"` CHARACTER SET = utf8mb4 COLLATE = utf8mb4_bin;") AS _sql
FROM `TABLES` WHERE table_schema LIKE "confluence" AND TABLE_TYPE='BASE TABLE' GROUP BY table_schema UNION
SELECT CONCAT("ALTER TABLE `",table_schema,"`.`",table_name,"` CONVERT TO CHARACTER SET utf8mb4 COLLATE
utf8mb4_bin;") AS _sql
FROM `TABLES` WHERE table_schema LIKE "confluence" AND TABLE_TYPE='BASE TABLE' GROUP BY table_schema,
table_name UNION
SELECT CONCAT("ALTER TABLE `",`COLUMNS`.table_schema,"`.`",`COLUMNS`.table_name, "` CHANGE `",column_name,"` `",
column_name,"` ",data_type,"(",character_maximum_length,") CHARACTER SET utf8mb4 COLLATE utf8mb4_bin",IF
(is_nullable="YES"," NULL"," NOT NULL"),";") AS _sql
FROM `COLUMNS` INNER JOIN `TABLES` ON `TABLES`.table_name = `COLUMNS`.table_name WHERE `COLUMNS`.table_schema
like "confluence" and data_type in ('varchar','char') AND TABLE_TYPE='BASE TABLE' UNION
SELECT CONCAT("ALTER TABLE `",`COLUMNS`.table_schema,"`.`",`COLUMNS`.table_name, "` CHANGE `",column_name,"` `",
column_name,"` ",data_type," CHARACTER SET utf8mb4 COLLATE utf8mb4_bin",IF(is_nullable="YES"," NULL"," NOT
NULL"),";") AS _sql
FROM `COLUMNS` INNER JOIN `TABLES` ON `TABLES`.table_name = `COLUMNS`.table_name WHERE `COLUMNS`.table_schema
like "confluence" and data_type in ('text','tinytext','mediumtext','longtext') AND TABLE_TYPE='BASE TABLE';
```

After that, I opened the queries.sql file, and inserted at the top:

```
SET foreign_key_checks = 0;
```

and at the bottom:

```
SET foreign_key_checks = 1;
```

And then ran:

```
mysql -u root -p < queries.sql
```

Took 4-5 hours to complete, and should end without errors....

**Thats it** - start Confluence and all is green and it can be upgraded