

# Database creation using T-SQL or SSMS allows Unsupported characters in name

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## Issue:

ARM API does not support specific T-SQL resource naming formats and that's why when Databases are created using T-SQL/SSMS, unsupported characters could get allowed into the names. Portal UI does **not** have this issue, because when you use Portal UI for creating Database, the creation goes through ARM, and hence when unsupported characters are entered in the Name field, it immediately throws error, as shown in the below image.

Therefore, the issue is present because of **one specific create scenario: i.e., when customer creates database using SSMS/T-SQL command**. As this create does **not** go through the ARM, hence it's not being restricted by ARM rules.

### Database details

Enter required settings for this database, including picking a logical server and configuring the compute and storage resources

Database name \*

a&b

Server \* ⓘ

adux-azuresqlserver (East US)

[Create new](#)

Want to use SQL elastic pool? ⓘ

☐ Yes

☒ No

✖ Your database name can't end with '.' or ' ', can't contain '<,>,\*%&,:;\,/,'?' or control characters

✔ The value has a length of at most 128.

✔ Database name should not contain reserved words

✔ No database with the same name exists in the server

## Details:

Officially Azure SQL Database resource name should not contain certain symbols:

<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/resource-name-rules#microsoftsql> [↗](#)

- Can't use: < > \* % & : \ / ? or control characters
- Can't end with period or space.

But not all of this restrictions are Applied when database is created using T-SQL command from master database. <https://learn.microsoft.com/en-us/sql/relational-databases/databases/database-identifiers?view=sql-server-ver16#rules-for-regular-identifiers> ☐ This is done to preserve consistency between on-prem Sql Server and Azure Sql databases.

Database should be visible through SSMS and you can do any operations that can be done from T-SQL.

As from Azure perspective:

1. You **can** see database in list of all databases in a server (Portal page with list of all databases in a specific server)
2. You **cannot** open specific page to any database that have \$ in the name
3. This database will **not** appear in ARM cache or Azure Resource graph
4. Any powershell/cli/Portal operation on this specific database will **fail**.
5. You will **not** see database in list of all databases (Database browse list page)

## Workaround or Mitigation to share with customers:

Database is still operational from T-SQL perspective, but if you want to be able to manage it from outside of T-SQL, then the only way is to rename database using T-SQL command to **not** have the unsupported characters in it's name: <https://learn.microsoft.com/en-us/sql/relational-databases/databases/rename-a-database?view=sql-server-ver16> ☐

## Repair Item, ETA for permanent fix:

<https://msdata.visualstudio.com/Database Systems/ workitems/edit/2175476> ☐

PG (ji.wang) could not give exact ETA, approximately they said this could be fixed by Mid-2023.

## Example ICMs:

<https://portal.microsofticm.com/imp/v3/incidents/details/346675681/home> ☐

<https://portal.microsofticm.com/imp/v3/incidents/details/344959057/home> ☐

## Demo of the issue

(Recording of an internal triage meeting) <https://msit.microsoftstream.com/video/21dd0840-98dc-b561-682c-f1ebdfdf0f4d> ☐

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