Relational Databases

Java Database Connectivity (JDBC)

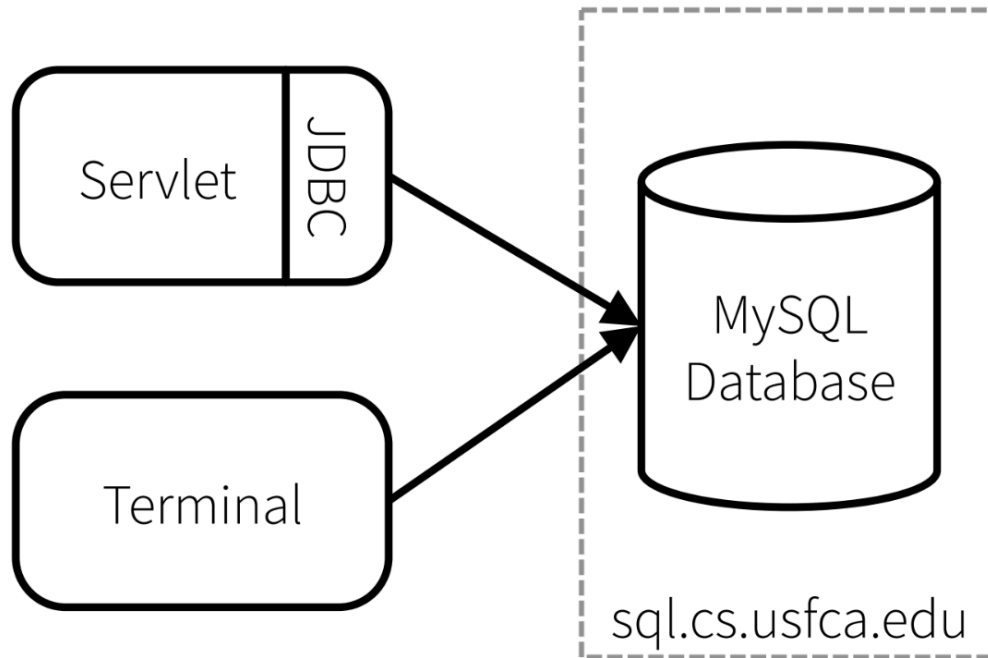Chris Bryan ◆ cbryan2@usfca.edu
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JDBC

- Java Database Connectivity (JDBC)
  - Java API to access relational databases
  - See packages java.sql.* and javax.sql*

- Requires a "driver" for specific DBMS
  - MySQL, Oracle, Postgres, etc.
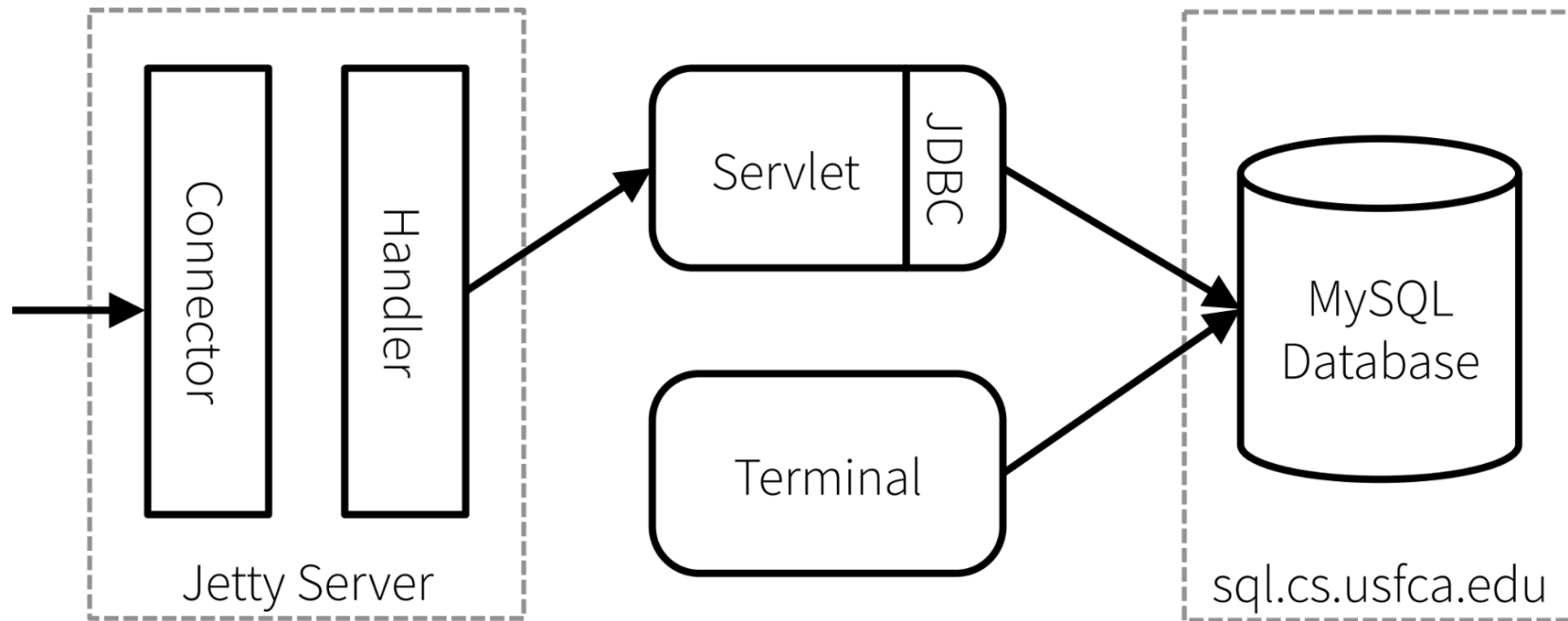
- Useful for database-backed web apps

https://docs.oracle.com/javase/8/docs/api/java/sql/package-summary.html

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Architecture

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On-Campus Configuration

- Connect directly to `sql.cs.usfca.edu`
  - Via database.properties file and JDBC
  - Via terminal and `mysql` command

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On-Campus Configuration

username=user##

password=??

database=user##

hostname=sql.cs.usfca.edu

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Off-Campus Configuration

- Must create SSH tunnel to connect to database
  - `ssh ????@stargate.cs.usfca.edu -L 3307:sql.cs.usfca.edu:3306 –N`

- Point database connection to tunnel on local system
  - **hostname=**localhost:3307

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