USF UNIVERSITY OF SAN FRANCISCO
CHANGE THE WORLD FROM HERE

Java Database Connectivity (JDBC)

CS 272 Software Development

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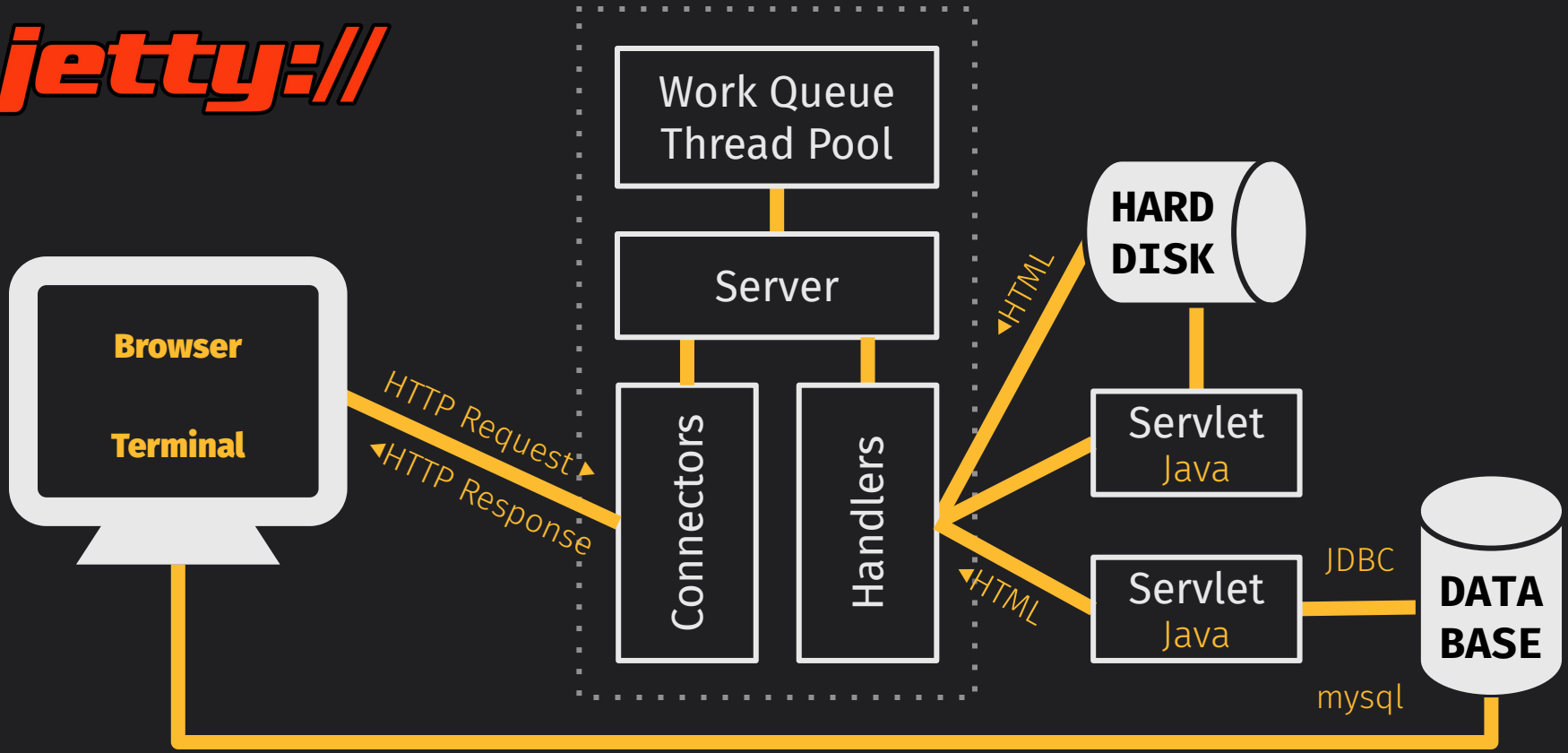
Department of Computer Science

Java Database Connectivity (JDBC)

- Java API to access relational databases
  - See `java.sql` and `javax.sql` packages
- Requires a "driver" for specific DBMS
  - MariaDB*, MySQL, Oracle, Postgres, etc.
- Useful for database-backed web applications

https://www.cs.usfca.edu/~cs272/javadoc/api/java.sql/module-summary.html

jetty://


Work Queue
Thread Pool
Server
Connectors
Handlers
Browser
Terminal
HTTP Request
HTTP Response
HTML
HARD
DISK
Servlet
Java
HTML
Servlet
Java
JDBC
DATA
BASE
mysql

On-Campus Database

- Connect to **sql.cs.usfca.edu** via **stargate.cs.usfca.edu**
  - Login via **ssh** and use mysql in terminal
  - Login via **database.properties** and use JDBC (requires MariaDB driver, included in pom.xml)
- Never hardcode passwords in code!

https://www.cs.usfca.edu/~cs272/javadoc/api/java.sql/module-summary.html

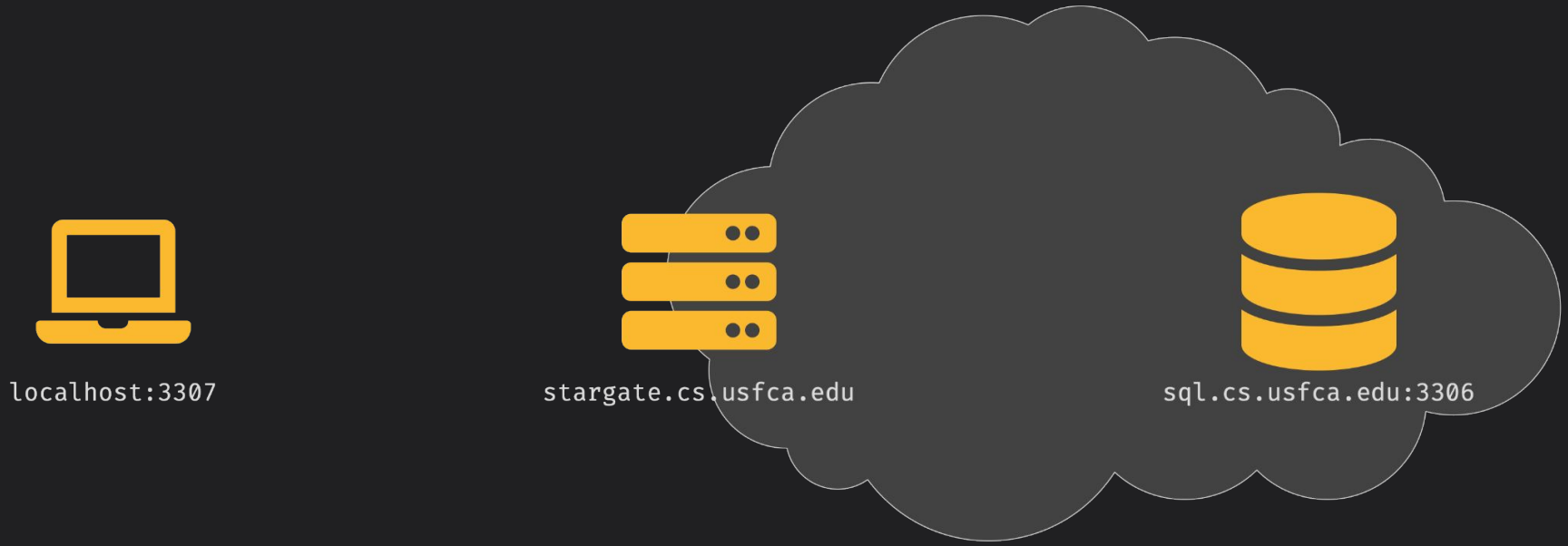
Off-Campus Configuration

```
ssh username@stargate.cs.usfca.edu
    -L 3307:sql.cs.usfca.edu:3306 -N
```

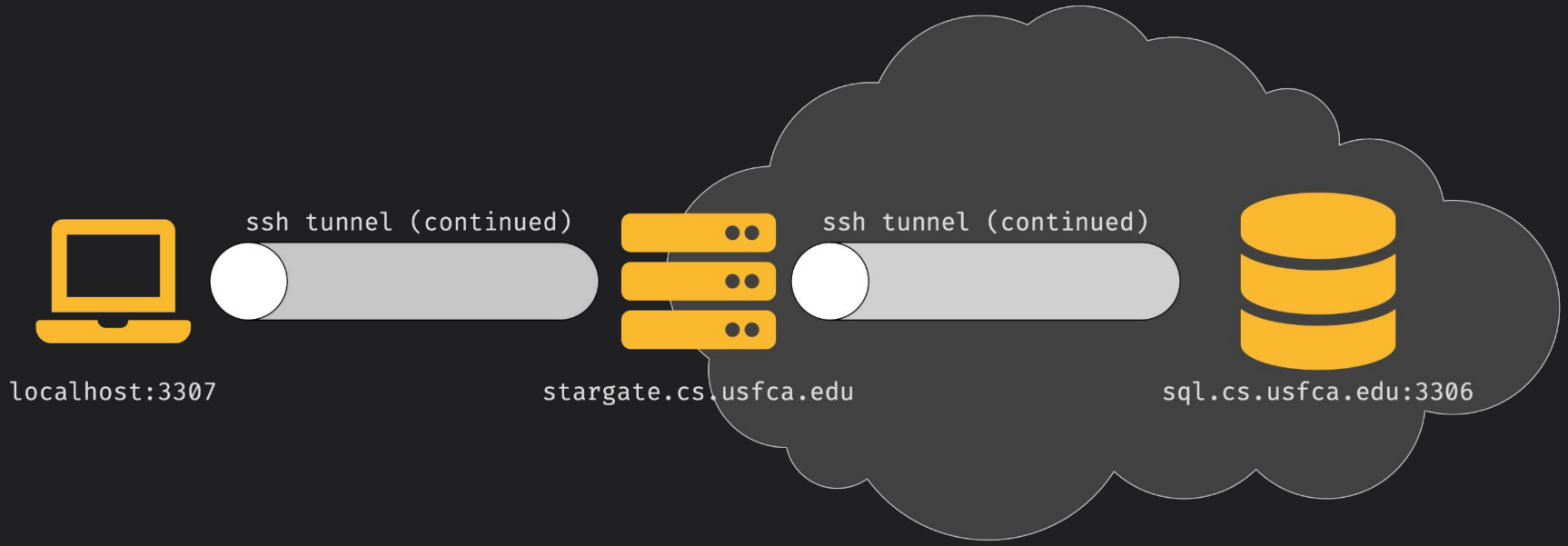
```
username=user###
database=user###
password=????
hostname=localhost:3307
```

database.properties

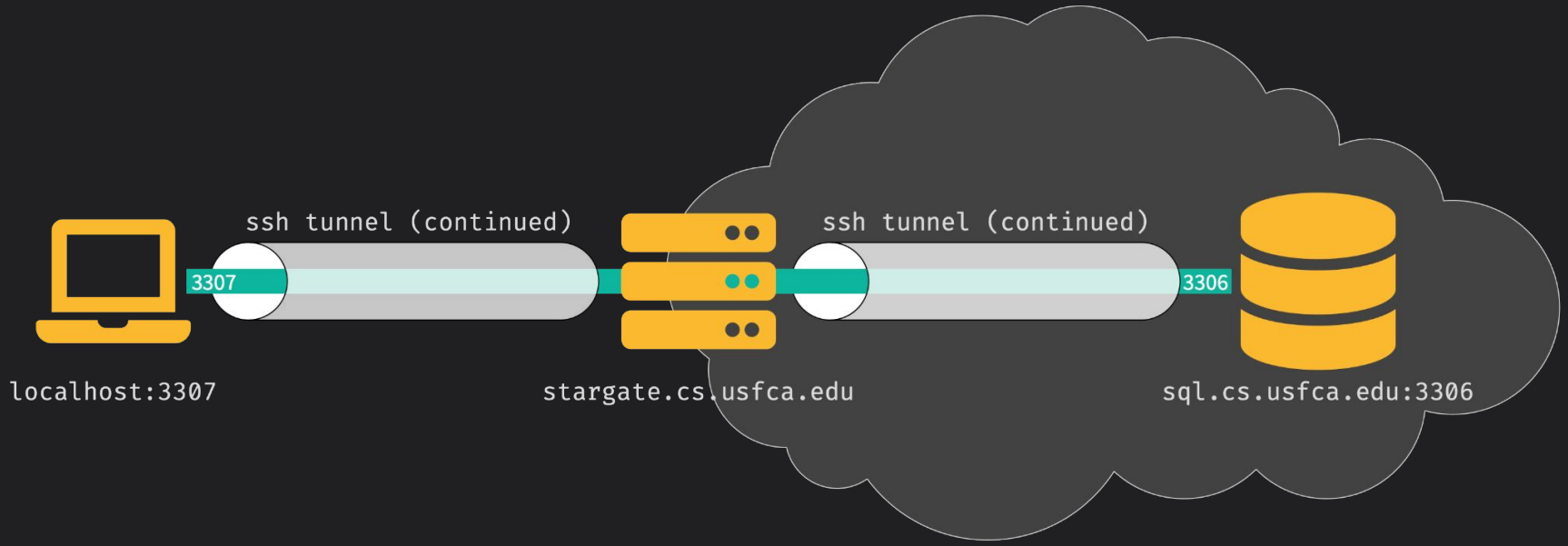
SSH Tunnel



SSH Tunnel


ssh tunnel (continued)
ssh tunnel (continued)
localhost:3307
stargate.cs.usfca.edu
sql.cs.usfca.edu:3306

SSH Tunnel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3307
3306
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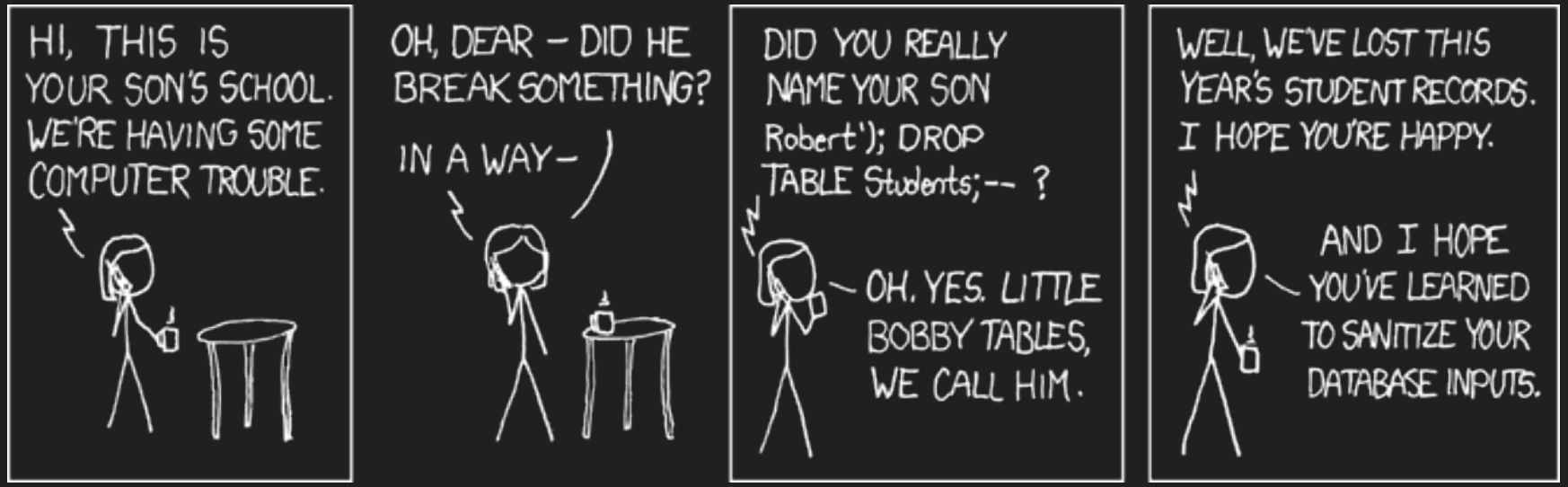
database.properties

Never Forget Bobby Tables!



https://xkcd.com/327/

Questions?