Data Access in Java SE 21 Fundamentals

JDBC Review and Project Setup

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Version Check

This course was created by using:
- Java 21
- JDBC 4.3
- Maven 3

What we are Building

Business Focus

```java
public Car getById(String id) {
    Connection con = null;
    PreparedStatement stmt = null;
    ResultSet rs = null;

    try {
        String sql = "select * from CAR where ID = ?";
        con = DriverManager.getConnection("localhost:3306/cars");
        stmt = con.prepareStatement(sql);
        stmt.setString(1, id);
        rs = stmt.executeQuery();
        if(rs.next()) {
            Car car = new Car();
            car.setMake(rs.getString(1));
            return car;
        }
        else {
            return null;
        }
    } catch (SQLException e) { e.printStackTrace();}
    finally {
        try {
            if(rs != null && !rs.isClosed()) {
                rs.close();
            }
        } catch (Exception e) {}
    }
    return null;
}
```
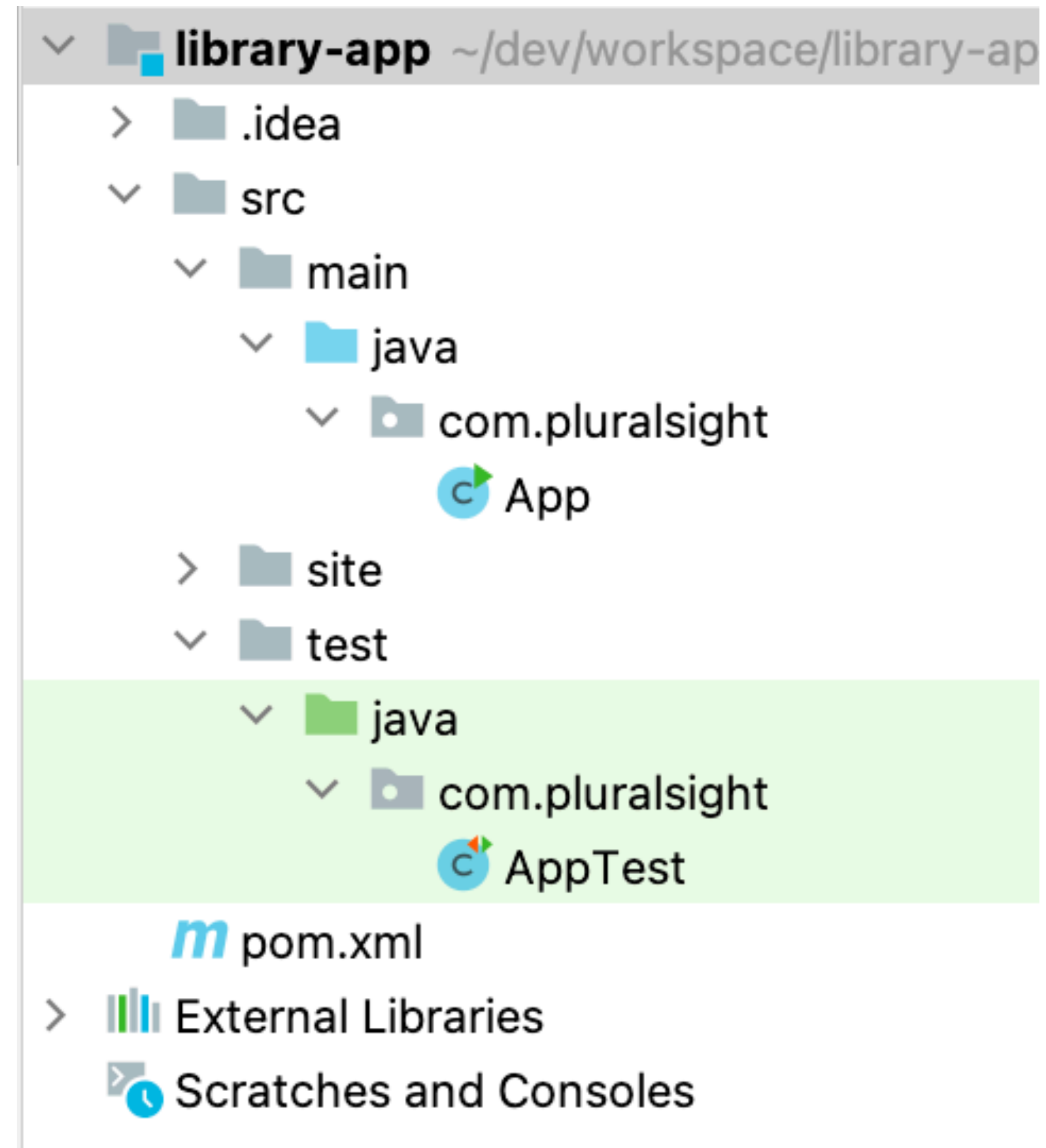
```
mvn archetype:generate
-DarchetypeArtifactId=maven-archetype-simple
-DarchetypeGroupId=org.apache.maven.archetypes -DinteractiveMode=false
-DgroupId=com.pluralsight
-DartifactId=library-app
-Dpackage=com.pluralsight
```
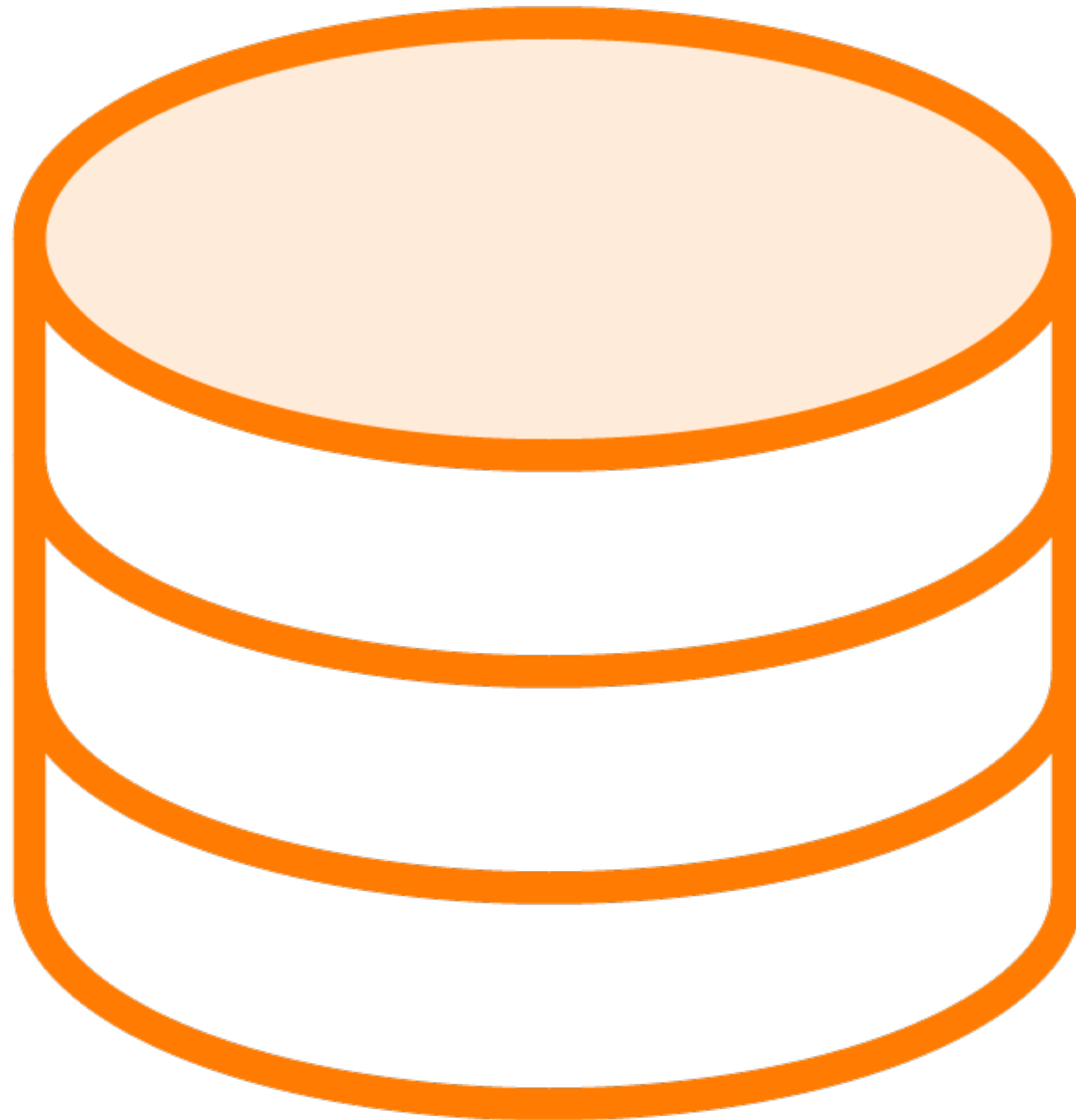
Maven Archetype

https://gist.github.com/bh5k/b42cffcbba3e2855a452c292f9258a5a

Project Layout

Database

docker-compose.yml

```yaml
db:
  image: mysql:8.0
  container_name: library
  ports:
    - 3306:3306
  volumes:
    - "./.data/db:/var/lib/mysql"
  environment:
    MYSQL_ROOT_PASSWORD: pass
    MYSQL_DATABASE: library_db
```

Summary

Versions

Maven Archetype

Project Layout

Database Setup