CS544 EA
Hibernate

Optimization

Optimization

- **Premature optimization is the root of all evil**
  - Donald Knuth (most important person in Algorithms)
  - See: https://en.wikiquote.org/wiki/Donald_Knuth

- Don't optimize until you have problems
  - Then test to make sure you fixed the right thing

Analyze Problems

- When you do **experience problems**:
  - Check the generated SQL to see what's happening

```xml
<properties>
    <property name="javax.persistence.jdbc.url" value="jdbc:mysql://localhost:3306/cs544?useSSL=false"/>
    <property name="javax.persistence.jdbc.driver" value="com.mysql.jdbc.Driver"/>
    <property name="javax.persistence.jdbc.user" value="root"/>
    <property name="javax.persistence.jdbc.password" value="root"/>
    <property name="hibernate.dialect" value="org.hibernate.dialect.MySQL5InnoDBDialect" />

    <!-- Useful for analyzing problems -->
    <property name="hibernate.show_sql" value="true" />
    <property name="hibernate.format_sql" value="true" />

    <!-- 2nd Level Caching -->
    <property name="hibernate.cache.provider_class" value="org.hibernate.cache.NoCacheProvider"/>
    <property name="hibernate.generate_statistics" value="true" />

    <property name="hibernate.id.new_generator_mappings" value="false" />
    <property name="hibernate.hbm2ddl.import_files" value="test.sql" />
    <property name="javax.persistence.schema-generation.database.action" value="drop-and-create"/>
</properties>
```

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Optimization

- First we will talk about LAZY and EAGER loading
  – And we will describe **common problems**

- To solve problems we'll look at:
  – Standard JPA ways to solve problems
  – Hibernate extensions to solve problems