

Hibernate

Introduction

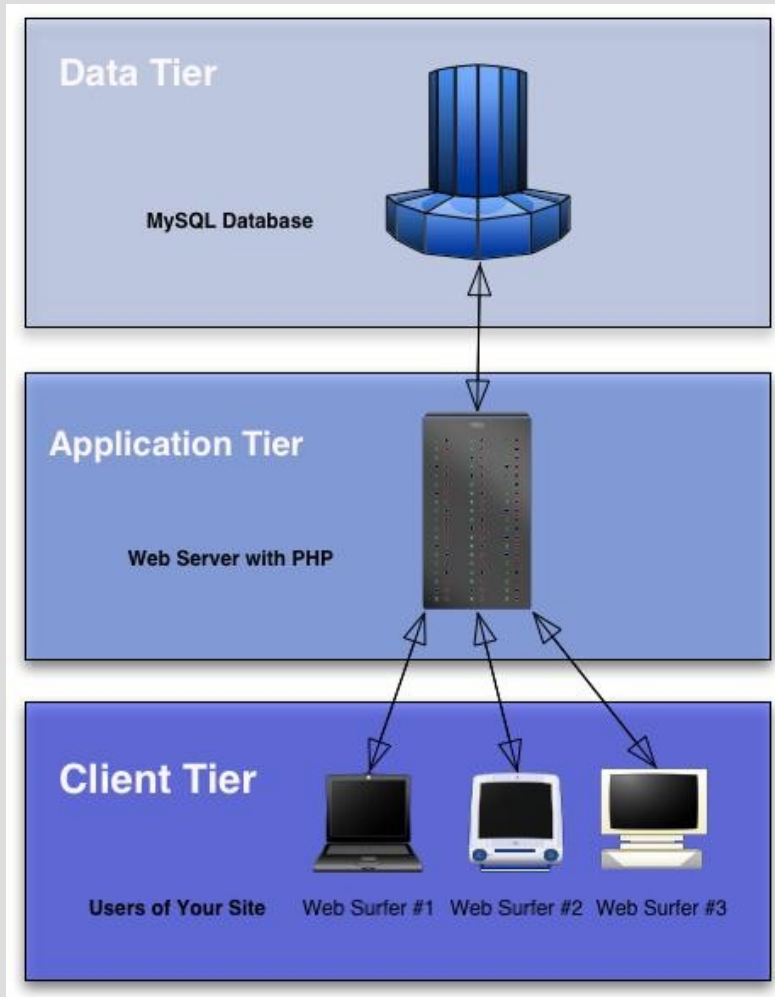
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Agenda

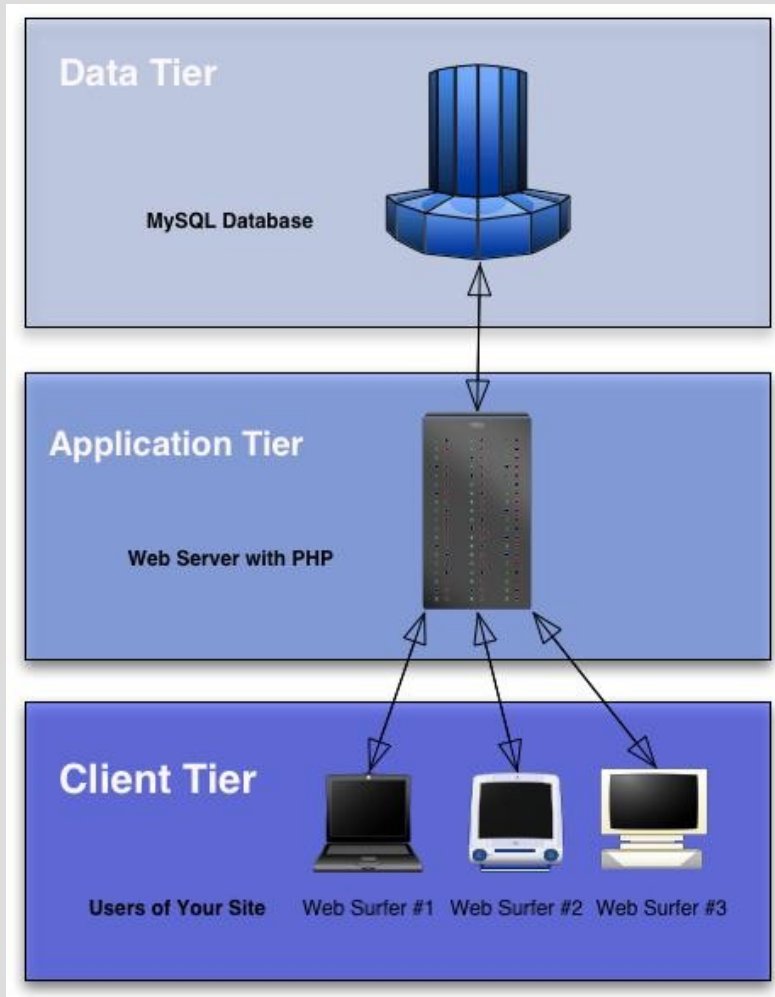
- Why Hibernate ?
 - Three-Tier Architecture
 - The persistence Layer
- Architecture
- Using Hibernate
- Should I use Hibernate ?

Three-Tier Architecture



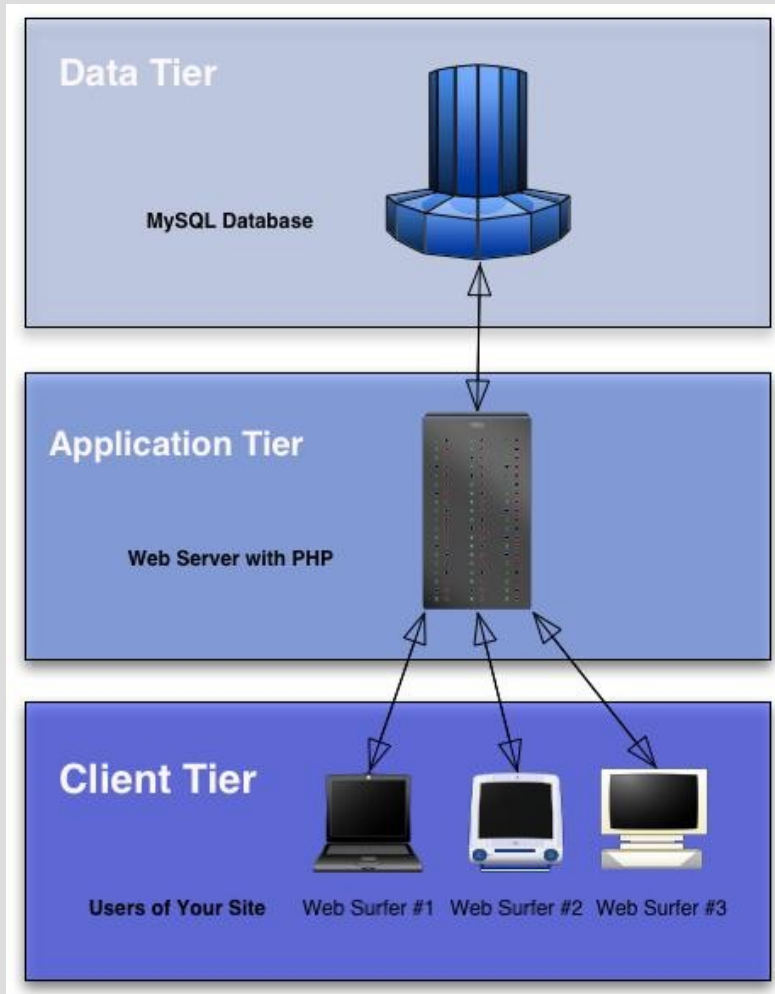
- Classical Architectural Pattern for Web Application

Persistence Layer



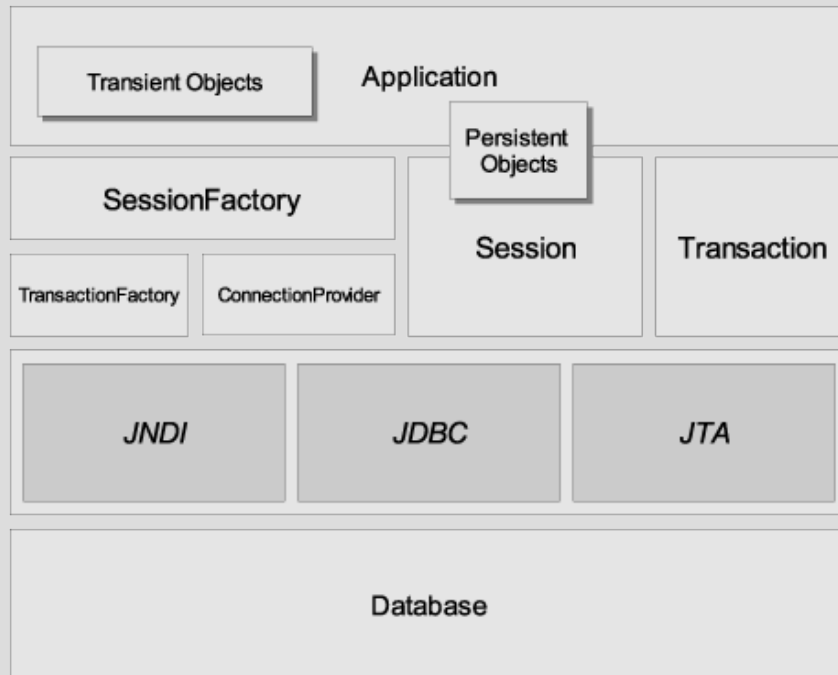
- Isolates the application from the persistence media
- Data are stored in databases, XML, plain files, volatile memory, ...
- Application works only with “Entity Concept”

Persistence Layer



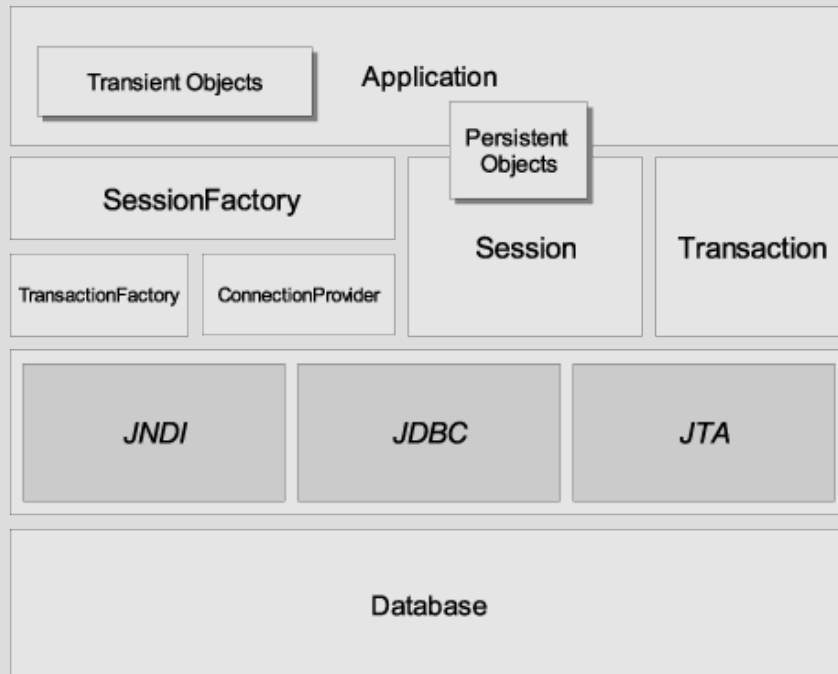
- I call “Entity Concept” something that has a business meaning
- Hibernate is a **technical** framework that permit
- Developer focus on business logic

Hibernate Architecture



- The Session manages Persistent Objects for Application
- The Session is created by SessionFactory
- The SessionFactory contains configuration

Hibernate Architecture



- Supports Database transaction and JTA Transaction
- Can be integrated with J2EE Framework

SessionFactory

- Stores the compiled mapping documents

```
Configuration cfg = new Configuration()
    .addClass(example.Player.class)
    .addClass(example.Team.class);
SessionFactory factory =
    cfg.buildSessionFactory();
```

Creating and Updating Persistent Classes

- For Hibernate, classes are either transient or persistent.
 - Transient classes are instances that have not been saved to the database.

```
Player player = new Player();  
// ... populate player object  
Session session =  
    SessionFactory.openSession();  
session.saveOrUpdate(player);
```

Retrieving Persistent Classes

- If you know the primary key value

```
Player player = new Player();  
session.load(player, playerId);
```

Retrieving Persistent Classes

- HQL : Hibernate Query Language

```
session.delete("from player in class  
example.Player where player.annualSalary >  
4000000");
```

Should I use Hibernate ?

- As always : “Don't unplug the brain”
- Separation between persistence and application logic is important
 - Hibernate is only a technology to achieve this
- Learning curve
- Implementation speed