

# Zwischenpräsentation





**Einführung**

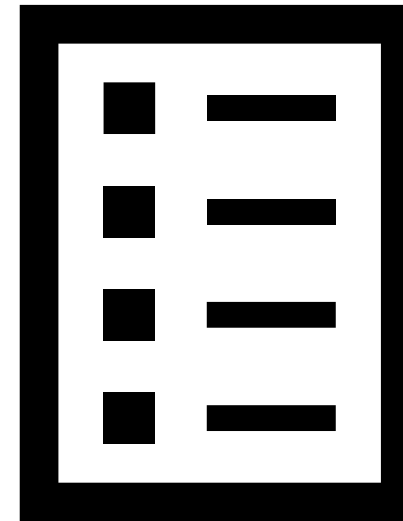
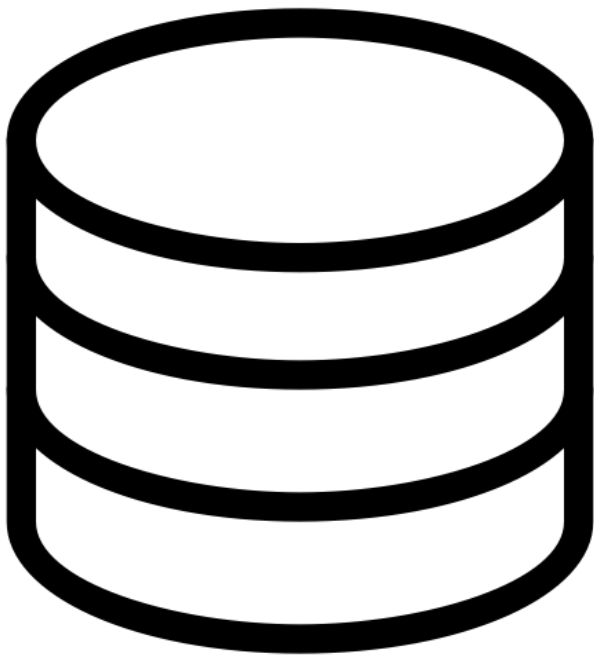


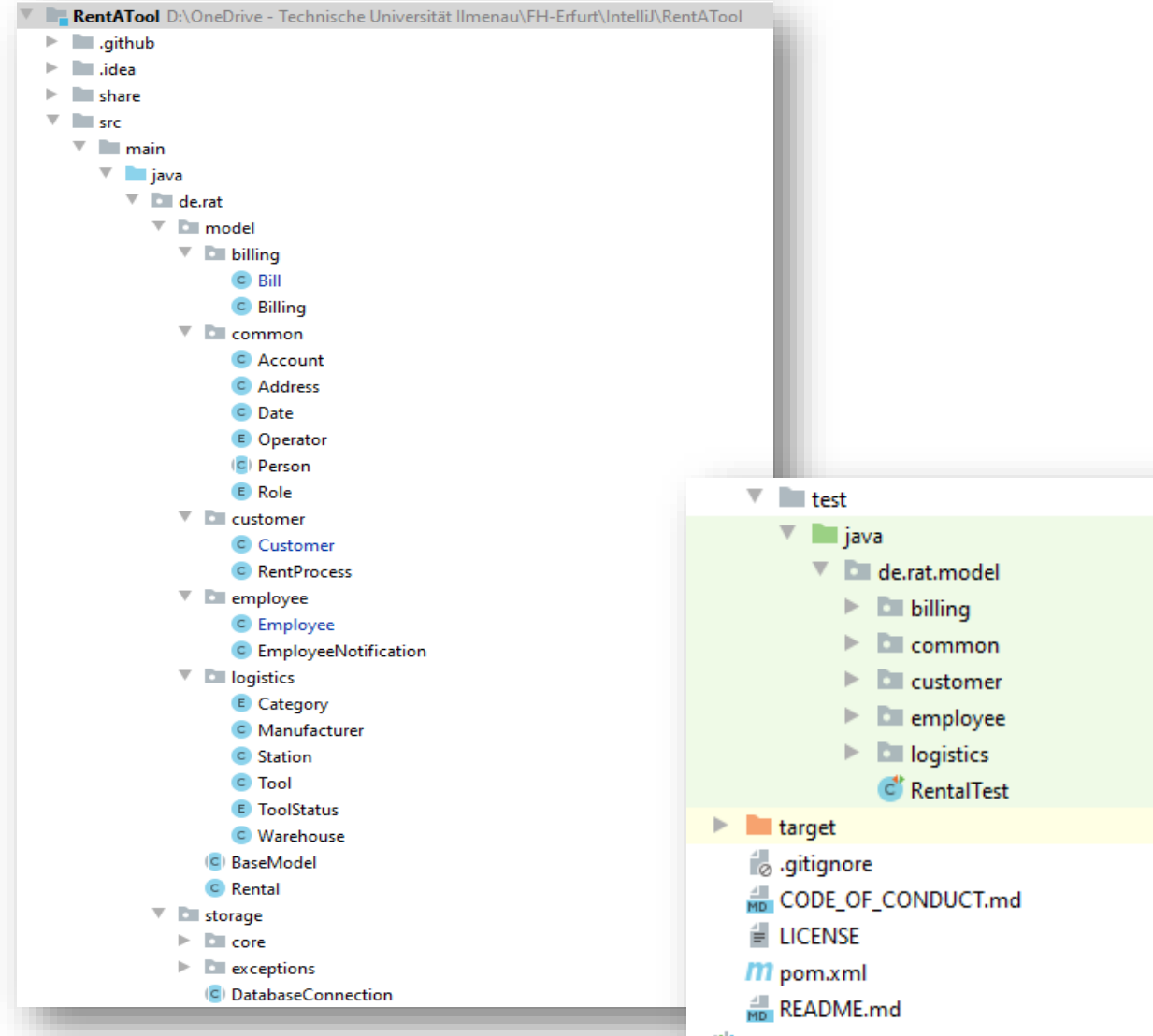
**Code &  
GitHub**

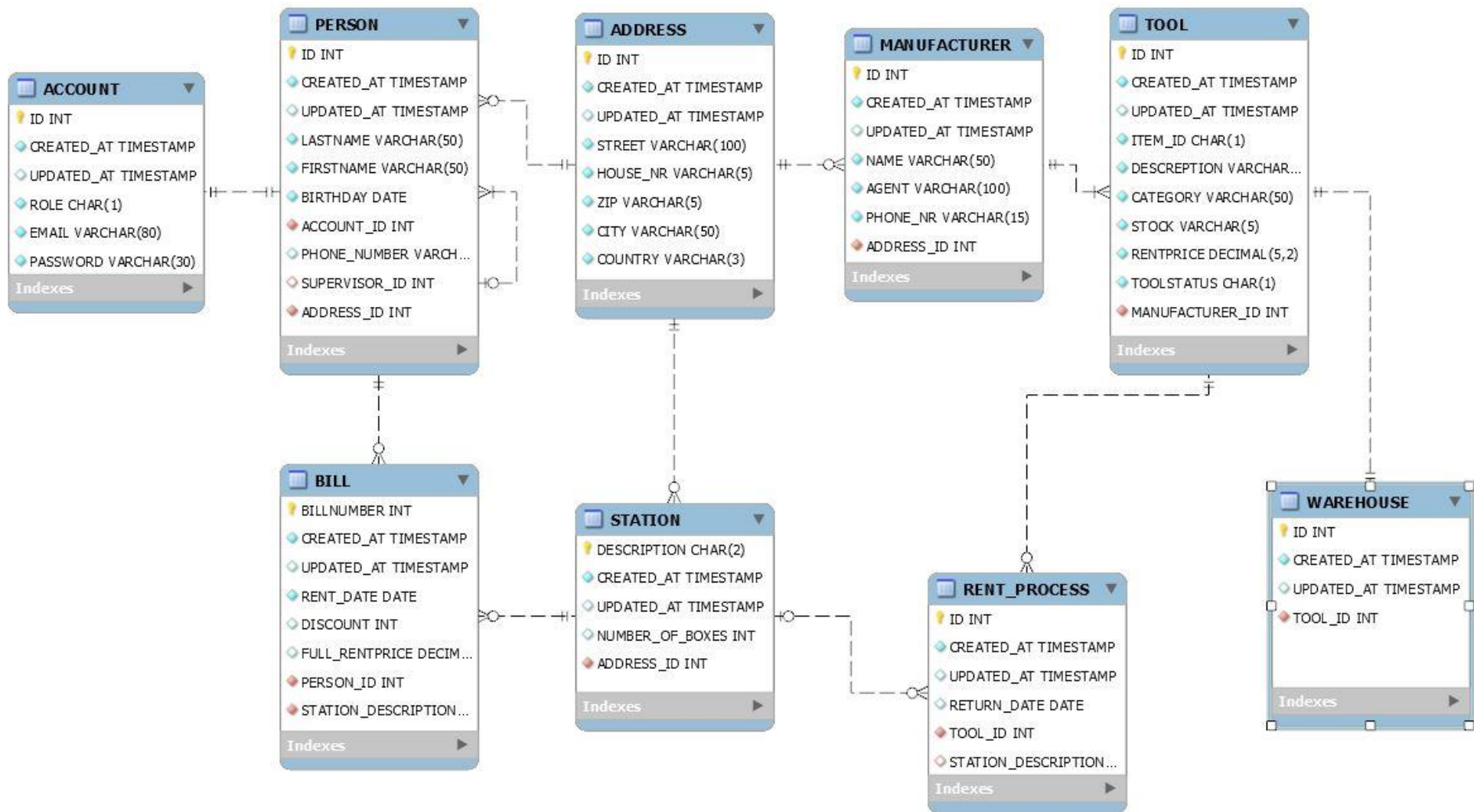


**Ausblick**











```
public class DataSource{
    private static final String PERSISTENCE_UNIT_NAME = "rat-pu";
    private EntityManagerFactory entityManagerFactory;
    private static DataSource dataSourceUniqueInstance;

    private DataSource(){
        this.entityManagerFactory = Persistence.createEntityManagerFactory( PERSISTENCE_UNIT_NAME );
        entityManagerFactory.createEntityManager();
    }

    public static DataSource getDataSource(){
        if(dataSourceUniqueInstance ==null){
            dataSourceUniqueInstance =new DataSource();
        }
        return dataSourceUniqueInstance;
    }

    public EntityManager getEntityManager() { return entityManagerFactory.createEntityManager(); }
}
```



```
public abstract class Repository<T extends BaseModel> {

    private DataSource dataSource;

    public Repository() { dataSource = DataSource.getDataSource(); }

    //String can be also entire object we want to change
    @PreUpdate
    protected abstract void updateOperation(T model, String argument);

    public Integer create(T model) {
        EntityManager entityManager = dataSource.getEntityManager();
        entityManager.getTransaction().begin();
        entityManager.persist(model);
        entityManager.flush();
        entityManager.getTransaction().commit();
        return model.getId();
    }

    public void update(T model, String argument) {
        EntityManager entityManager = dataSource.getEntityManager();
        entityManager.getTransaction().begin();
        updateOperation(model, argument);
        entityManager.merge(model);
        entityManager.getTransaction().commit();
    }
}
```

```
public void delete(T model) {
    EntityManager entityManager = dataSource.getEntityManager();
    entityManager.getTransaction().begin();
    model=entityManager.merge(model);

    entityManager.remove(model);
    entityManager.getTransaction().commit();
}
```

```
public T findOne(T model){
    EntityManager entityManager = dataSource.getEntityManager();
    return (T) entityManager.find(model.getClass(), model.getId());
}

public List<T> getAll(String className){
    EntityManager entityManager = dataSource.getEntityManager();
    Query query = entityManager.createQuery(
        "SELECT c FROM "+className+" c");
    return (List<T>) query.getResultList();
}

public void delete( List<T> entries )
{
    EntityManager entityManager = dataSource.getEntityManager();
    entityManager.getTransaction().begin();
    for( T entry : entries )
    {
        entityManager.remove( entry );
    }
    entityManager.getTransaction().commit();
}
```

```
public abstract class ToolRepository extends Repository<Tool> {  
    @Override  
    protected void updateOperation(Tool model, String description) {  
        model.setDescription(description);  
    }  
}
```

```
<persistence xmlns="http://java.sun.com/xml/ns/persistence"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://java.sun.com/xml/ns/persistence http://java.sun.com/xml/ns/persistence/persistence_2_0.xsd"
  version="2.0">

  <persistence-unit name="rat-pu" transaction-type="RESOURCE_LOCAL">

    <description>Hibernate EntityManager</description>
    <exclude-unlisted-classes>false</exclude-unlisted-classes>
    <properties>
      <property name="hibernate.dialect" value="org.hibernate.dialect.H2Dialect"/>
      <property name="hibernate.hbm2ddl.auto" value="update"/>
      <property name="javax.persistence.jdbc.driver" value="org.h2.Driver"/>
      <property name="javax.persistence.jdbc.url" value="jdbc:h2:mem:addressbook;DB_CLOSE_DELAY=-1"/>
      <property name="javax.persistence.jdbc.user" value="sa"/>
    </properties>
  </persistence-unit>

</persistence>
```

```
public abstract class BaseModel {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int id;

    @Temporal(TemporalType.TIMESTAMP)
    private Date created;

    @Temporal(TemporalType.TIMESTAMP)
    private Date modified;

    @PrePersist
    void onCreate() { this.setCreated(new Date()); }

    @PreUpdate
    void onUpdate() { this.setModified(new Date()); }

    public void setCreated(Date created) {this.created = created;}
    public void setModified(Date modified) {this.modified = modified;}

    public int getId() {return id;}
    public Date getCreated() {return created;}
    public Date getModified() {return modified;}
}
```

### Project pre-planning

⚠ Past due by 14 days ⌚ Last updated 4 days ago

Discuss the main direction of the project and set the main things in the right direction!

100% complete 0 open 11 closed

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### Database

📅 Due by June 14, 2020 ⌚ Last updated about 4 hours ago

Generate all basic attributes to run a simple database. Annotations, Relations, ...

72% complete 3 open 8 closed

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### First Presentation

📅 Due by June 15, 2020 ⌚ Last updated 1 minute ago

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### Spring JPA

📅 Due by June 28, 2020 ⌚ Last updated about 4 hours ago

Include Spring JPA with h2-database and a database on the heroku server. Generate all necessary attributes to run the database with Spring - JPA

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### Spring MVC

📅 Due by July 06, 2020 ⌚ Last updated about 4 hours ago

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### HTML / JS

📅 Due by July 20, 2020 ⌚ Last updated about 4 hours ago

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### Documentation

📅 Due by July 26, 2020 ⌚ Last updated about 4 hours ago

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### Final Presentation

📅 Due by August 03, 2020 ⌚ Last updated 6 days ago

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### Deadline Project

📅 Due by August 03, 2020 ⌚ Last updated about 4 hours ago

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The screenshot displays a Kanban board with five columns, each representing a different stage of task completion. Each column contains several task cards, each with a title, issue number, assignee, and priority/type labels.

- To do (6 items):**
  - include Spring JPA with H2-Database (#101, darthkali, 1 - Highest, Type - Enhancement)
  - change all ArrayLists to Lists (#96, darthkali, 2 - Critical, Type - Bug)
  - make all empty constructors protected (#100, darthkali, 3 - Alarming, Type - Enhancement)
  - Clear all unused classes, methods, attributes (#81, darthkali, 3 - Alarming, Type - Enhancement)
  - create a Database Connection (#75, darthkali, 4 - Act soon, Type - Enhancement, Type - Question)
  - create some Date models for the Database (#87, darthkali, 4 - Act soon, Type - Enhancement)
- Test (2 items):**
  - create a basic test for one database class (#94, darthkali, 3 - Alarming, Type - Test)
  - create a Test for the Date Mapping (#98, darthkali, 1 - Highest, Type - Test)
- In progress (2 items):**
  - Create Annotations for the packages: Billing, Customer, Employee (#91, darthkali, 1 - Highest, Type - Enhancement)
  - Create Annotations for the package: Logistics (#89, darthkali, 1 - Highest, Type - Enhancement)
- Done (22 items):**
  - create Presentation (#95, darthkali, 1 - Highest, Type - Enhancement)
  - Create the H2 Database Connection (#97, darthkali, 4 - Act soon, Type - Enhancement)
  - create inheritance from classes to database classes (#76, darthkali, 4 - Act soon, Type - Documentation, Type - Question)
  - should we put the Warehouse also in the database? (#86, darthkali, 3 - Alarming)
  - Fix the persistende.xml - eclipse import (#93, darthkali, 2 - Critical, Type - Bug)
  - Whats does the repository classes? (#88, darthkali, 1 - Highest, Type - Enhancement, Type - Question)
- Meeting Minutes (6 items):**
  - every presentation as pdf (#80, darthkali, 4 - Act soon, Type - Documentation)
  - 08.06.2020 Meeting with Jonas (#99, darthkali, Type - Documentation)
  - 11.05.2020 Readme in English? (#78, darthkali, 4 - Act soon, Type - Documentation, Type - Question)
  - 11.05.2020 review old project. questions new project (#77, monschey, Type - Documentation, Type - Question)
  - 04.05.2020 review from the old project (#59, darthkali, Type - Documentation)
  - 04.05.2020 Questions (#62, darthkali, Type - Documentation, Type - Question)

At the bottom of each column, there is a status bar indicating the automated status and a 'Manage' link.





Spring MVC



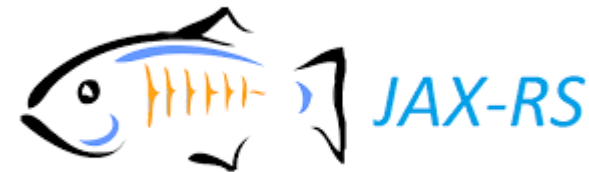
Spring Boot



HIBERNATE



REST API





# Vielen Dank