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Task 7: Final Presentation

BTX8081 – Software Engineering and Design

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Features implemented vs. Design thinking ideas

Ideas vs. Implemented

Design Thinking

- ▶ Focus on the treatment of patients with OCD and how to support the medical staff
- ▶ Adaption and addition of patient data and notifying other actors
- ▶ Interface to a self-documentation app for the patient

Implemented features

- ▶ Login for: patient & doctor
- ▶ Create Patient
- ▶ Mood / Score Test
- ▶ Diary
- ▶ (Database)



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Architecture and coding highlights

Persistence

```
/**
 * Database manager encapsulates the database connection. A EntityManager
 * singleton is provided by this class.
 */
public class DBManager {

    private static final String PERSISTENCE_UNIT_NAME = "jimen1";
    private static DBManager dbm;
    private EntityManager em;

    static DBManager getInstance() {
        if (dbm == null) {
            dbm = new DBManager();
        }
        return dbm;
    }

    EntityManager getEntityManager() {
        return em;
    }









    private DBManager() {
        this.em = Persistence.createEntityManagerFactory(PERSISTENCE_UNIT_NAME).createEntityManager();
    }
}
```

```
/**
 * Repository provides database functions for patient data.
 */
public class PatientRepository {

    private EntityManager em;

    /**
     * Constructor inits class.
     */
    public PatientRepository() {
        em = DBManager.getInstance().getEntityManager();
    }

    /**
     * Saves the given patient.
     * @param patient the patient to store in database.
     */
    public void addPatient(Patient patient) {
        em.getTransaction().begin();
        em.persist(patient);
        em.getTransaction().commit();
        em.close();
    }
}
```

- ▶  model.common
- ▼  > persistence
 - ▶  DBManager.java
 - ▶  DiaryRepository.java
 - ▶  DoctorRepository.java
 - ▶  LeafDoctorsRepository.java
 - ▶  > PatientRepository.java
- ▼  > presenter

Authentication

```
public LoginModel() {
    setRole(Role.ANONYMOUS);
}

public boolean authenticate(String username, String password) {
    if (username.equals(PATIENT_USERNAME) && password.equals(PATIENT_PASSWORD)) {
        setRole(Role.PATIENT);
        return true;
    } else if (username.equals(DOCTOR_USERNAME) && password.equals(DOCTOR_PASSWORD)) {
        setRole(Role.DOCTOR);
        return true;
    } else {
        setRole(Role.ANONYMOUS);
        return false;
    }
}

/**
 * @param role
 *         the user role
 */
public void setRole(Role role) {
    VaadinSession.getCurrent().setAttribute("role", role);
}
```



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Lessons learnt

Lessons learnt / Scrum retrospective

- ▶ Took on too much
 - ▶ Step by step
 - ▶ Rather less, but runnable
- ▶ Scrum Planning needs to be more serious
 - ▶ Effort estimates and task-packages are too vague
 - ▶ Meetings need to be fixed early enough
- ▶ Team members focused on specific software parts ➔ Learning?



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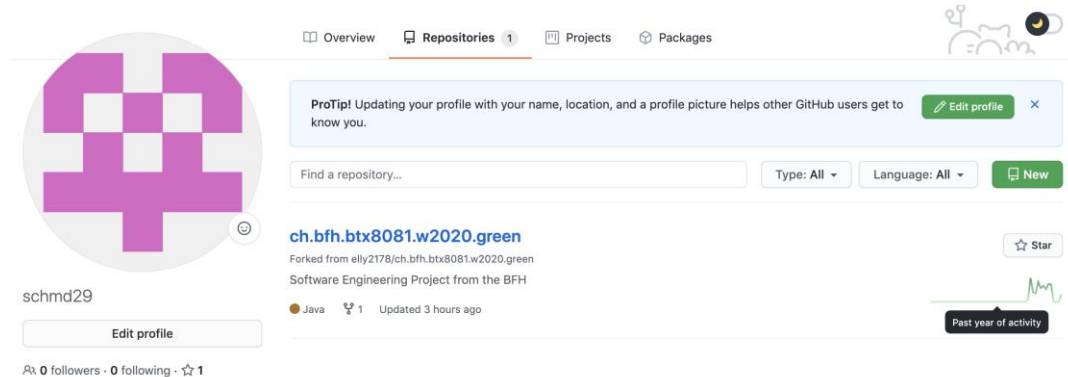
Appendix

Appendix

- https://en.wikipedia.org/wiki/Obsessive%E2%80%93compulsive_disorder
- <https://iocdf.org/wp-content/uploads/2014/08/Assessment-Tools.pdf>
- <https://www.addictionsandrecovery.org/tools/obsessive-compulsive-disorder-test-yale-brown-o-c-d-scale-y-b-o-c-s.pdf>

Contributions

- See attached Excel File in Github Repository



The screenshot shows the GitHub profile of user **schmd29**. The profile picture is a purple and white pixelated cross. The user has 0 followers, 0 following, and 1 star. The main repository is **ch.bfh.btx8081.w2020.green**, which is a fork from **elly2178/ch.bfh.btx8081.w2020.green**. It is a Java project, updated 3 hours ago. The repository description is "Software Engineering Project from the BFH". The user's bio says "ProTip! Updating your profile with your name, location, and a profile picture helps other GitHub users get to know you." There are tabs for Overview, Repositories (1), Projects, and Packages. A "Past year of activity" graph is visible at the bottom right.

Oct 18, 2020 – Jan 21, 2021

Contributions: Commits ▾

Contributions to main, excluding merge commits

