Bilkent University - 2024/2025 Spring

CS 319 - Object-Oriented Programming

TA Management System Project

Section 1

Team 9

Deliverable 5

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1. User's Manual

1.1 Properties

- Java JDK 17+
- Node.js 16+ and npm
- MySQL database and MySQL Workbench
- IDE: IntelliJ IDEA for backend, VS Code for frontend
- Environment Variables (set in application.properties or .env):
    - spring.datasource.url, spring.datasource.username, spring.datasource.password
    - jwt.secret, jwt.expirationMs
    - spring.mail.host, spring.mail.port, spring.mail.username, spring.mail.password

2. Build Manual

2.1 Get Repository Locally

git clone https://github.com/denizozturkk/TA-MANAGEMENT-SYSTEM.git
cd TA-MANAGEMENT-SYSTEM

Switch to backend branch
git checkout master

Switch to frontend branch
git checkout cankutay-front1

2.2 Backend Setup

1. Navigate to the project root:

cd TA-MANAGEMENT-SYSTEM

2. Configure application.properties:

 # === DATASOURCE ===

spring.datasource.url=jdbc:mysql://localhost:3306/tams_db?allowPublicKeyRetrieval=true&useSSL=false&serverTimezone=UTC

spring.datasource.username=abcde

spring.datasource.password=pass1234

spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver

 # === JPA / HIBERNATE ===

spring.jpa.hibernate.ddl-auto=update

spring.jpa.show-sql=true

spring.jpa.properties.hibernate.format_sql=true

 # (you can remove the explicit dialect; Spring Boot infers it)

```
# spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQLDialect

# === JWT SETTINGS ===

app.jwt.secret=<JWT_Placeholder>

# 24h = 24 * 60 * 60 * 1000 ms

app.jwt.expirationMs=86400000

logging.level.org.springframework.web=DEBUG

logging.level.org.hibernate=INFO

logging.level.org.springframework.security=DEBUG

# and your own filter

logging.level.edu.bilkent.cs319.team9.ta_management_system.security.JwtAuthenticationFilter=DEBUG

# SMTP settings for Gmail

spring.mail.host=smtp.gmail.com

spring.mail.port=587

spring.mail.username=bilkent.email@gmail.com

spring.mail.password=yqynssblaoyynndb

spring.mail.properties.mail.smtp.auth=true

spring.mail.properties.mail.smtp.starttls.enable=true

# tell Spring Boot to include exception.message in the /error JSON

server.error.include-message=always

# max file size is 5 mb

# limit multipart uploads to 5 MB

spring.servlet.multipart.max-file-size=5MB

spring.servlet.multipart.max-request-size=5MB
```

3. server.port=8080

Open IntelliJ and go to the class TaManagementSystemApplication.java and run it

The backend will be available at http://localhost:8080

2.3 Build Frontend

1. Navigate to the frontend directory on another branch:

```
git checkout cankutay-front1
 cd .\frontend\frontend\
```

2. Install dependencies and start:

```
npm install

npm start
```

The frontend will run on http://localhost:3000

2.4 Ready to Run

Ensure the backend is running on **http://localhost:8080**

Ensure the frontend is running on **http://localhost:3000**

Open **http://localhost:3000** in a browser.

Log in with your credentials.

3. Work Allocation

3.1 Emre Uçar

- Have made the sequence diagram for Deliverable 2, System Decomposition Diagram for Deliverable 3, and the final report as known as Deliverable 5.
- Made frontend pages for the users Admin, Dean and TA.
- Made mock-up datas for the overall project
- Implemented the Calendar, report and admin systems.

3.2 Cankutay Dündar

- Played role in all functionalities frontend-backend integration especially in the faculty Member and Department Staff.
- Wrote all the pages of Users, Faculty Member, Coordinator and Department Staff
- Implemented the layouts for all users
- Integration of frontend to mobile devices
- Deployed frontend
- Played role in Use Case for Deliverable 1, did all the mock-ups for Deliverable 2
- Making a video edit for Readme
- Making a D5 report.
- Also fixing the mistakes of spelling and fixing the buttons names,types and links.

3.3 Deniz Öztürk

- Implemented the Excel import system end-to-end, including both frontend integration and backend logic for database persistence.
- Developed the feedback system functionality for users.
- Built the in-app notification system for the backend and set up the SMTP mail server to notify users via email.
- Implemented the report management system for both the Dean and Admin roles.
- Handled the full implementation of the authentication and security layers, including JWT-based authentication and role-based access control.
- Designed and implemented the user profile and role management features to secure and differentiate system access.
- Contributed to the Deliverable 1 Use Case Diagram and created the State Diagram for Deliverable 2.

3.4 Yüksel Barkın Baydar

- Implemented Faculty Member (Proctoring Assignment, Duty Assignment, Leave Request, Extension Request etc.).
- Implemented half of the TA, worked on the corresponding classes as well (Offerings, BusyHour etc.)
- Integrated Faculty Member backend with its frontend.
- Worked on integration of TA's frontend and backend.
- Determined the edge cases and functionality cases and tested them.
- Enhanced frontend
- Made the Deliverable 4, and the activity diagram for Deliverable 1..

3.5 Mehmet Anıl Yeşil

- Implemented half of the TA class and worked on the corresponding classes as well.
- Implemented the PDF-based functionalities (PDF upload/download etc.)
- Implemented the BusyHour scheduling
- Worked on integration of TA's frontend and backend (swap proctoring etc.).
- Worked on the functionalities of calender both on frontend and backend.
- Made the class diagram for Deliverable 2.

4. TAMS Demo Video Link

https://youtu.be/nrH915TBe6A