

1. Online Forum Web Application

Purpose To study Java and JPA to build web application for portfolio.

Period 04/11/2020 – 02/12/2020

Technique Java, JPA, Springboot Framework, MySQL, Lombok, Thymeleaf, Bootstrap, Tomcat, Git

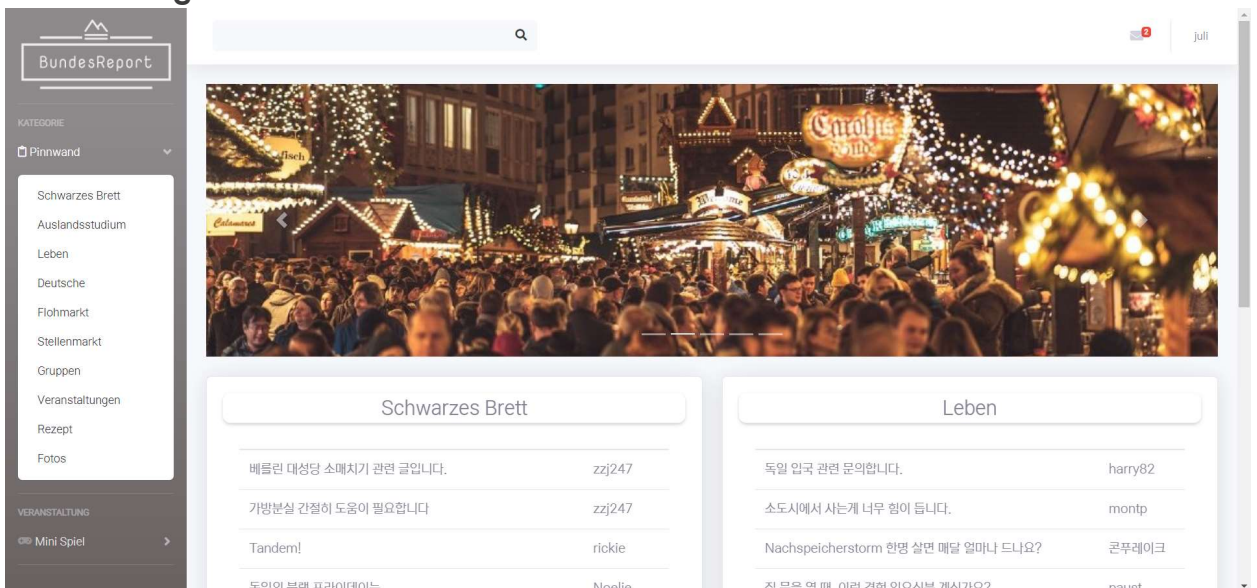
Role

- ▶ Designed and developed database using MySQL, JPA.
- ▶ Developed server using Java, Springboot framework.

▶ **Functions**

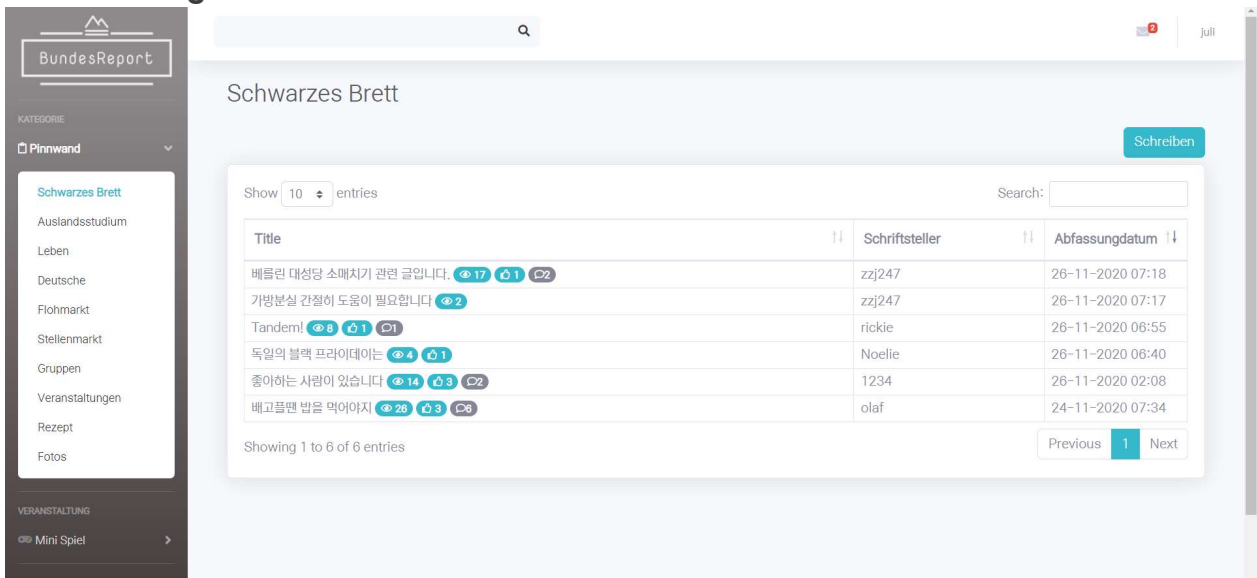
- ▶ Signup, login, logout
- ▶ Write, update and delete posts
- ▶ Write, update and delete comments
- ▶ Send and receive messages to other users
- ▶ Play mini-game for German learners

▶ **Main Page**



Contents

▶ **Board Page**



Gallery Page

BundesReport

KATEGORIE


- Pinnwand
- Schwarzes Brett
- Auslandsstudium
- Leben
- Deutsche
- Flohmarkt
- Stellenmarkt
- Gruppen
- Veranstaltungen
- Rezept
- Fotos

VERANSTALTUNG

- Mini Spiel

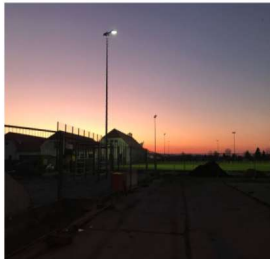
Fotos

Schreiben




Curry Wurst mit Ha...

rickie
26-11-2020



드레스덴 노을 예쁘죠?...

hanna
26-11-2020



드레스덴 베이글 먹으러...

hanna
26-11-2020

Game Page

BundesReport

KATEGORIE

- Pinnwand
- Mini Spiel
- Saurer Regen
- Artikel Spiel

VERANSTALTUNG

- Presentation

arbeiten

sein

lernen

handeln

text Eingabe

Die Punkt : 0 / Das Leben : ♥♥♥♥♥

Banane

Der Die Das

Die

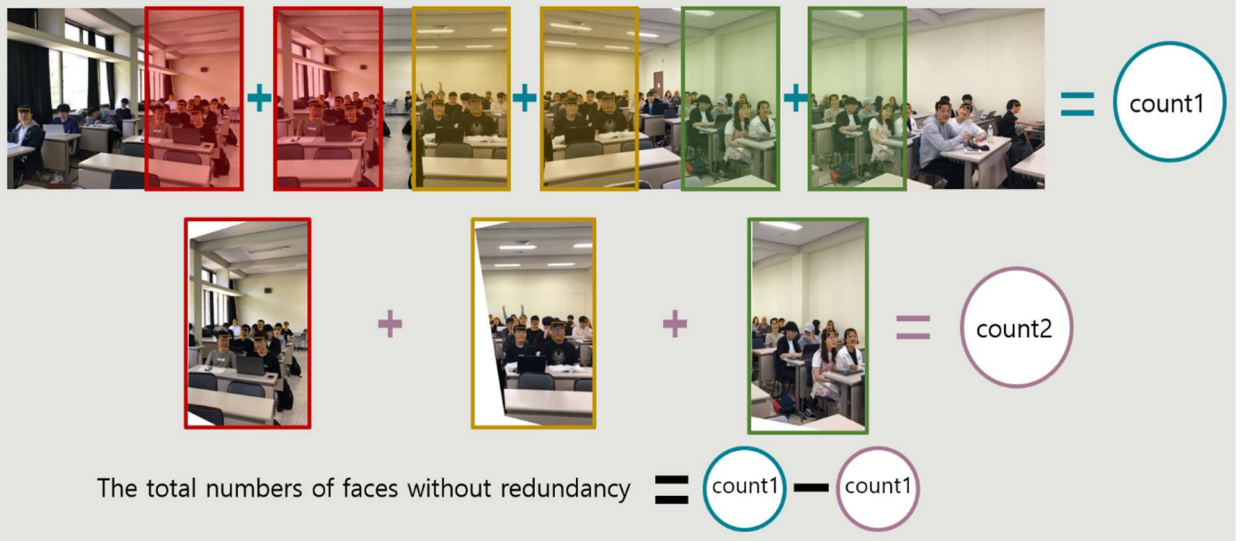
2. Online Marketplace Web Application

Purpose	To build web application for a start-up that sells *meal-kit online (*meal-kit : pre-portioned and partially-prepared food ingredients to prepare homecooked meals)
Period	08/2019 – 12/2019
Technique	Python, Django Framework, MySQL, AWS, Git
Role	<ul style="list-style-type: none"> ▶ Designed database and develop server. ▶ Developed some parts of main functions for online marketplace – product search, cart, create/delete/modify comment, recipe.
Contents	<ul style="list-style-type: none"> ▶ Compositions : 2-depth category, navigation bar(self-production products, recommended products, bestseller, new products, today's deal, recipe), real-time posts from social media ▶ Functions : search, cart, pay, create/delete/modify comment

3. Attendance Check Web Application using Face Detection

Purpose	To research for the graduation thesis – The secondary verification of attendance to prevent fake attendance
Period	04/2019 – 06/2019
Technique	Python, Flask Framework, OpenCV, Tensorflow, Numpy
Role	<ul style="list-style-type: none"> ▶ Made each programs of image processing and face detecting together. ▶ Developed web server. ▶ Designed responsive page using Bootstrap.
Contents	<p>▶ System Flow</p> <pre> graph TD User[User] -- "1. Input original images" --> Web[Web] Web -- "2. Original images" --> OAF[Overlapped Area Find Algorithm] OAF -- "3. Extract the overlapped areas" --> FDA[Face detection Algorithm] FDA -- "4. Apply face detection algorithm" --> FDA FDA -- "5. The number of faces in images + Bounding box + Output Images" --> Web Web -- "6. Calculate the number of faces and print it" --> User </pre>

▶ **The way we count the number of faces in input images**



▶ **Algorithms**

- ▶ FAST(Features from Accelerated Segment Test) : compare the brightness of pixels to find the corner
- ▶ Harris Corner Detection : move the small square over the image and observe if there is a significant change in all directions to find the corner
- ▶ Image Pyramid : make the image in various sizes and choose the corner precisely
- ▶ MTCNN : consists of P-Net, R-Net and O-Net and detect faces
- ▶ NMS(Non Maximum Suppression) : reduce the redundancy

4. Arduino Project : Drawbridge

Purpose	For studying Arduino – implement drawbridge using Arduino
Period	04/2016 – 06/2016
Technique	Arduino, C, Bluetooth communication
Role	<ul style="list-style-type: none"> ▶ Made the ship go forward, stop, shift leftwards and shift rightwards.
Contents	<ul style="list-style-type: none"> ▶ Components : Uno board, Bluetooth, Infrared distance sensor, Servo motor, DC motor, LED, Photoresistor, Buzzer ▶ Structure of drawbridge and ship