

Team Members and Individual Contributions

ASE Delivery, AngryFish (Team 17)

Yuhang Hu ✉, **Mariia Cherepnina** ✉, **Danya Liu** ✉, **Sathwik Amburi** ✉, and **Jonas Fromm** ✉

✉ 'ge86jej@mytum.de'
✉ 'm.cherepnina@tum.de'
✉ 'danya.liu@tum.de'
✉ 'sathwik.amburi@tum.de'
✉ 'jonas.fromm@tum.de'

November 5, 2022

Yuhang Hu	Hours Spent
Authentication and authorization - Backend	20
Create JWT token and connection with Frontend	15
Assist in Delivery Management - Backend	10
Help with Raspberry PI logic	5

Table 1 Individual contribution by the first author.

Mariia Cherepnina	Hours Spent
Methods for the hardware controlling and for the communication with the backend for Raspberry	5
MongoDB database entities and repositories for querying MongoDB	5
REST API	20
Connection and authentication in docker containers	2

Table 2 Individual contribution by the second author.

Danya Liu	Hours Spent
Generate QR code, pop-up window and refine UI	5
Frontend UI Management assist	5
Frontend Delivery Management	5
Raspberry PI logic and setup	12
Raspberry PI main loop assist	3

Table 3 Individual contribution by the third author.

Sathwik Amburi	Hours Spent
Assist in setting up Backend skeleton code and connection to Database	5
User Management - Frontend	15
Delivery UI	25
Raspberry PI logic assist	5

Table 4 Individual contribution by the fourth author.

Jonas Fromm	Hours Spent
Raspberry Pi setup and wiring (RFID, LEDs, Sensor)	5
Raspberry Pi configuration and Python main loop plus some LED control functions	10
Containerizing frontend, backend, auth-service and MongoDB	5
Dockerfiles and Docker Compose file	5
Email Notification	15
CI/CD and ngrok deployment	30
Helping with authentication	10

Table 5 Individual contribution by the fifth author.