

Team Members and Individual Contributions

ASE Delivery, AngryFish (Team 17)

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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 and pop-up window	2
Frontend UI Management assist	5
Frontend Delivery Management	5
Raspberry PI logic	10

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.