Individual Contribution Doc

Yuan Zhuang:
Yuan was responsible for the frontend of the dispatcher's panel:
- Box management by dispatchers
  - Boxes can be created, listed, updated, and deleted
- User management by dispatchers
  - customers, deliverers, and dispatchers can be created, listed, updated, and deleted
- Delivery management by dispatchers
  - deliveries can be created, listed, updated, and deleted

Yuan was also responsible for the following frontend infrastructures:
- used React + Antd for UI components and design
- used Redux for shared state management
- used Axios for the API layer, with a mock API instance built upon an Axios adapter to simulate asynchronous requests with a fake backend, which allowed the frontend to reduce temporary code to a minimal level, and can develop frontend at its own pace
- support for asynchronous request lifecycle with Redux-Thunk

Nikita Charushnikov:
Nikita mainly worked on the backend services design and development. It included:
- design and development of the authentication/CAS service.
  - CRUD endpoints for credentials management
  - Basic authentication for login
  - JWT + CSRF token generation, Key (Public/private) management
- design and development of the user management in the delivery service:
  - CRUD endpoints for user account data management
  - Communication with authentication service for credential and key management
- partially development the delivery management in the delivery service:
  - Creation, deletion, update events of deliveries
- partially development of the box management in the delivery service:
  - Update and deletion of boxes
- development of the email service in the delivery backend.
- integration of API gateway and Discovery Service
- security integration on resource endpoints in authentication and delivery service:
  - all necessary requests are authenticated using JWT token
  - users are authorized using role based access control
  - CORS configuration
  - CSRF protection
- Participated in development of CI/CD:
  - two MongoDB instances configuration
  - service scaling

Michal Kawka:
Michal worked mainly on the backend part, especially delivery service. It included:

- design and implementation of Delivery Service
    - CRUD endpoints for managing deliveries
    - CRUD endpoints for managing boxes
    - CRUD endpoints for managing users

Yanjie Li:
Yanjie worked on the frontend part and backend part. The frontend part includes:
- Responsible for the look-and-feel of the SPA
    - Adapt frontend configuration to be compatible with AntD customized theme
- Login page
    - Log the users in and "redirect" them to the corresponding portal
- Customer's portal
    - List of active and past deliveries for one user
    - Delivery search via tracking code
- Deliverer's portal
    - List of deliveries for the current user
    - Confirm pick-up from central deposit
- Also helped in delivery management
    - Integrate this part with the backend
    - Legal box list and deliverer list filter in frontend logic

The backend part includes:
- Box management
    - Open box authorization
    - Box close actions: based on box state and active delivery amount
- Debugged several endpoints

Ke Chen:
Ke worked on the Hardware part and Microservice part.
The Hardware part includes:
- Set up the Hardware
    - Led, photon, rfid reader, and raspberry pi
- Hardware Code
    - Logic function for hardware components
    - Hardware-Server Communication

The Microservice part includes:
- Dockerfile for all of our services: discovery-server, cas, dse, gateway and spa
- docker-compose.yml to orchestrate the docker containers of our services
- .gitlab-ci.yml to automaticlly deploy our services to the AWS
- Set up local gitlab-runner
- Set up AWS instances
- Set up gitlab CI/CD

Fallback video demo:
https://youtu.be/wexj4nhLz5I
Check the README.md for more details