Automatic Assessment Platform
for programming assessments
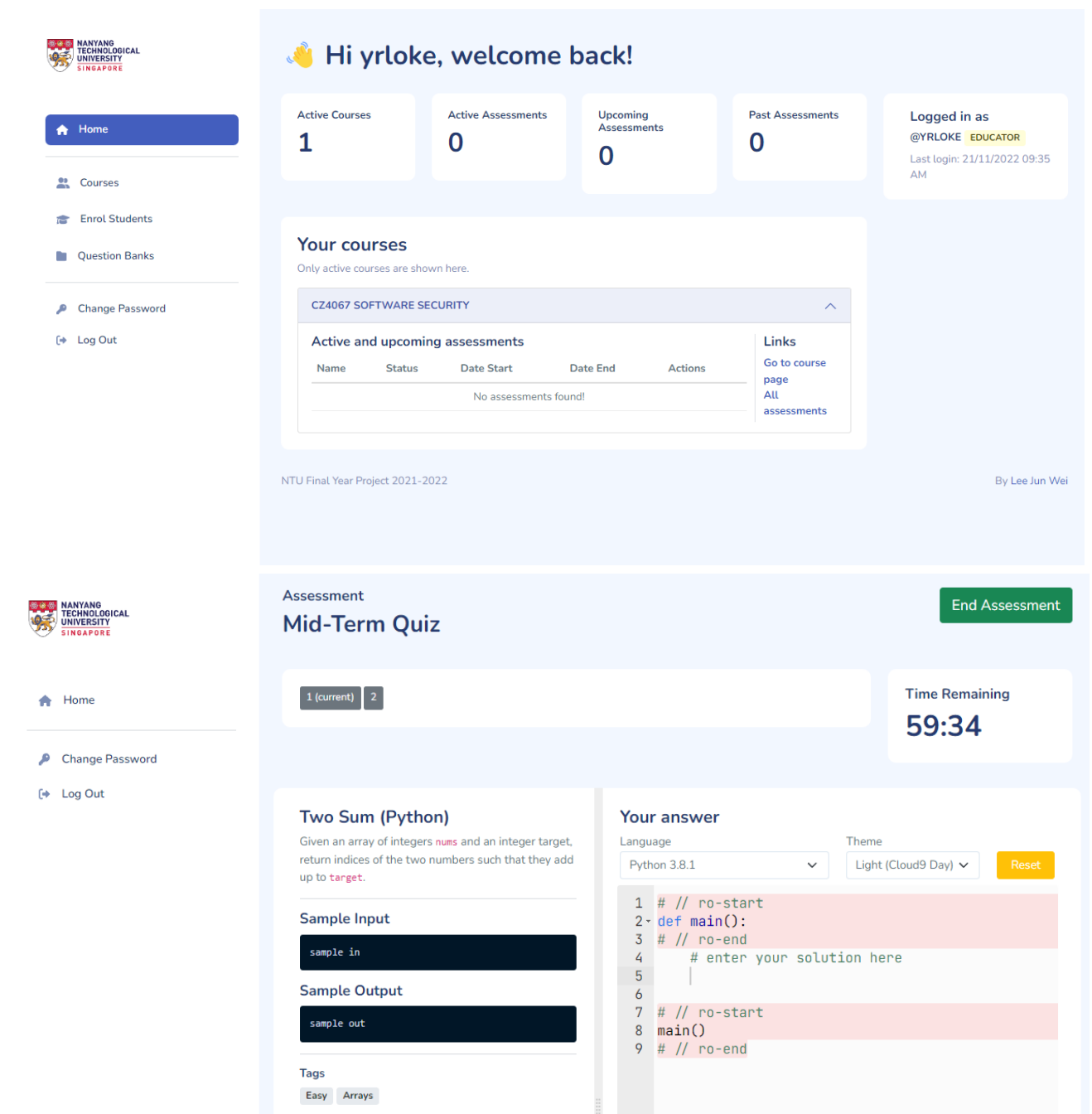
Student: Lee Jun Wei   **Supervisor:** Dr Loke Yuan Ren

PROJECT OBJECTIVES

The project aims to design and develop an in-house Auto-Assessment Platform that is fast, reliable and intuitive for users. The goal is to allow educators to effortlessly create and distribute assessments and enable students to attempt the assessments available to them.

The platform also performs rapid automated grading of answers, eliminating the significant time that educators would have to spend if it was performed manually. Educators can then view and export the generated assessment reports.

SCREENSHOTS

CORE FEATURES

GENERAL

- Fully automated grading
- User authentication
- User groups
- Two-tier authorisation to resources
- Markdown with Math support
- Ease of deployment with Docker

EDUCATORS

- Assessment Reports
- Courses, question banks and assessments
- Delegation of management tasks to other users
- Easy enrolment and management of students
- Sharing of question banks

STUDENTS

- Two-pane interface for answering questions
- Quick testing of answer with "Compile and Run"
- Viewing details of passed and failed test cases

TECHNOLOGIES USED

django | PostgreSQL | Judge0 | NGINX | redis | Bootstrap
CELERY | RabbitMQ | gunicorn | docker | jQuery