CS319 – Object Oriented Software Engineering

Final Report

Section 3

Team 4 – FACID

Çağatay Akpınar - 22003508
İlhami Uluğtürkkan - 22102546
Alphan Tulukcu - 2200350
Feza Emir Çelik - 22101910
Deniz Can Özdemir – 22003854

1. Introduction

- Final version of the CampusConnect app provides safe and easy-to-use environment for buying, selling and borrowing goods for Bilkent campus residents. All features planned at the beginning of the project were successfully implemented into the project to ensure this environment. The first step that users who want to use the CampusConnect must complete in order to access all the facilities of the site is register to the site and then authenticate their accounts via Bilkent e-mail. After that any user can add posts, entries, borrowings and donations to the CampusConnect and interact with other users.

2. Project Experience

- While completing our project, we experienced and learned the possible problems and solutions of these problems as a group.

2.1 Analyzing Process

- First of all we examine and investigate the issues of the in-campus selling and buying processes. After that we produce possible solutions for these issues to implement CampusConnect. To start the implementing project we had to draw 5 diagrams. These are use-case diagram, class diagram, sequence diagram, activity diagram and class diagram.

2.2 Design Process

- In design process we worked on lower level design of a project. We have arranged our diagrams which mentioned in analyzing process part after learning subsystem decomposition. We have added more classes to our class diagrams according to feedback and changes we made. After the changes, we created our subsystem decomposition and packages.

2.3 Implementation Process

- In implementation process we decided to use Django, HTML and CSS. After thar we have set up IDE to computers of all group members. Then we have made distribution of tasks. Each member started to learn the technologies about his parts. After completing the website we deployed our servers to AWS Cloud.

2.4 Overall Evaluation

- As a result, we have really experienced the steps of the object-oriented project design. All group members learned that object-oriented project is not only writing codes of the project. Creating diagrams and good task distribution provides huge ease to all group members while writing code.

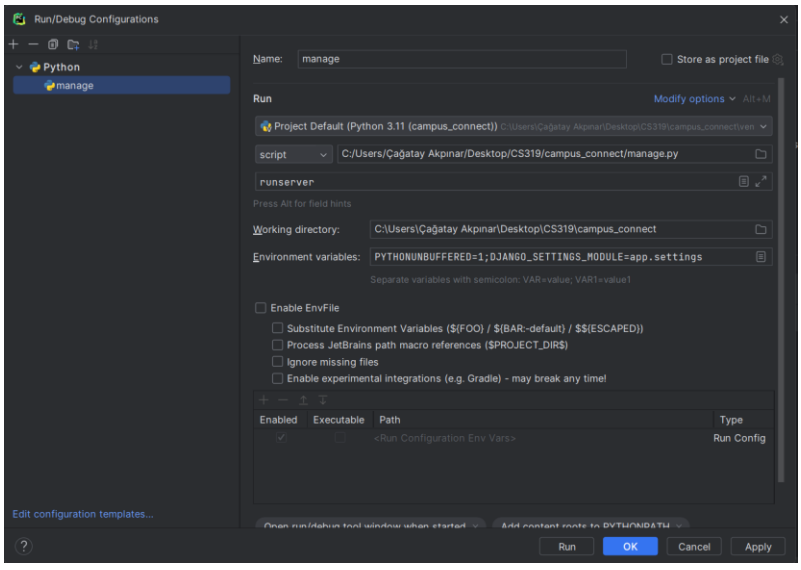
3. User's Guide

- User guide is provided another pdf file at Project GitHub page.

4. Build Instructions

1. Clone the Project from github link
   `git clone https://github.com/CS319-23-FA/S3T4_FACID.git`
2. Open the Project in the IDE (Recommended: PyCHarm)
3. Create a virtual environment with Python 3.11 or later. (If Python is not installed in your Computer, install Python with www.python.org
4. After creating venv, type the following command in the terminal:
   pip3 install -r 'requirements.txt'

5.Open edit confugrations panel, and fill like the following image:



6. Run the Project, and enjoy your experience.

5. Work Allocations

- Deniz Can Özdemir

    - Analysis Report:
        - Drawed sequence diagrams.
    - Design Report:
        - Completed subsystem decomposition.
    - Implementation:
        - Completed process of creating account.
        - Completed process of verification.
        - Completed process of filtering.
        - Completed process of integrating ChatGPT API to prevent inappropriate word uses.
- Çağatay Akpınar
    - Analysis Report:
        - Wrote scenarios for use case diagram.
        - Wrote NFRs.
        - Drawed activity diagrams.
        - Drawed state diagrams.
        - Drawed mockups.
    - Design Report:
        - Wrote object desgin trade-offs.
        - Drawed final object design.
        - Wrote and drawed design patterns.
        - Wrote packages.
        - Wrote class interfaces.
        - Wrote persistent data management.
    - Implementation:
        - Completed suggestion algorithm.
        - Completed process of favouriting feature.
        - Completed admin feature.
    - Final Report:
        - Create user manual.
        - Wrote project experience.
- Alphan Tulukcu
    - Analysis Report:
        - Wrote tech-stack.
    - Design Report:
        - Wrote boundary conditions.

    - Implementation:
        - Completed adding mechanism (CRUD Operations).
        - Completed messaging feature.
        - Made front-end design.
        - Completed sold post feature.
    - Final Report:
        - Wrote build instructions.
- Feza Emir Çelik
    - Design Report:
        - Wrote purpose of system.
    - Implementation:
        - Completed searching feature.
        - Made front-end design.
        - Completed reporting feature.
- İlhami Uluğtürkkan
    - Analysis Report:
        - Drawed use case diagram.
    - Design Report:
        - Wrote access control and security.
    - Implementation:
        - Made uploading photo operation.
        - Completed comment feature.