SOEN343:
SOFTWARE ARCHITECTURE AND DESIGN

“Delivery” service application
(Phase IV)

Instructor: Dr. Joumana Dargham

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Contents

1 General Information

Date posted: September. 17, 2024

Date due: TBA

Weight: 15% of the overall grade.

2 Introduction

This assignment targets:

1. Finalizing the implementation of back-end and front-end (GUI) .
2. Provide the code of the six main functionalities.
3. Generating the dashboard.
4. Making group report.
5. Making individual report.

3 Ground rules

You are allowed to work on a team of 4 students to 6 students at most (including yourself). Each team should designate a leader who will submit the assignment electronically. See Submission Notes for the details. ONLY one copy of the project is to be submitted by the team leader.

4 Project description

The core features of the "Delivery" service include:

1. Request for delivery (details of pick up and drop of)
2. Proposal of a quotation for the service
3. Communication about the service
4. Tracking the order
5. Payment
6. Help assistance by using Chatbot.

5 Your Project (phase IV)

Your assignment implementation will be divided into two main parts: Front-End (GUI) and Back-End development. Below are the guidelines and expectations for each part:

5.1 Back-End Implementation

- Design and implement the core logic, data processing, and server-side functionality of the system. (using database is not essential)
- You are allowed to use **open-source libraries or frameworks** to support back-end development, but the system must be **customized** to meet the specific requirements of the project.
- **Customization Requirement**: Clearly define any changes or extensions you apply to existing open-source tools. This could include modifications to algorithms, data schemas, API routes, security protocols, or other back-end elements.
- **Documentation**: Provide a comprehensive description of the modifications made to the open-source tools in both the **written report** and the **final presentation**. Cite the original sources properly and include details about how your customizations improved or adapted the system.
- Deliverables should include:
    - Full codebase of the back-end
    - Explanation of changes made to the open-source components
    - Documentation of how the back-end integrates with the front-end and handles data requests/responses

5.2 Front-End (GUI) Implementation

- Develop the graphical user interface that users will interact with to access the system's functionality.
- You are allowed to use **open-source libraries or frameworks** for GUI development, but the system must be **tailored** to suit the needs of the assignment.
- **Customization Requirement**: Specify the changes made to the visual components, workflows, or user experience in the interface. This could include adjustments to the layout, input forms, validation processes, or user feedback mechanisms.
- **Documentation**: Just like the back-end, include a clear explanation of how the front-end was customized. Reference any open-source tools used, and describe the purpose and impact of your changes in the **report** and **presentation**.
- Deliverables should include:
    - Complete front-end codebase
    - Screenshots or demo of the final GUI
    - A detailed explanation of GUI customizations and how they connect to the back-end

5.3 General Requirements

- **Open-Source References**: Any open-source library or tool used must be properly referenced both in the **final report** and during the **presentation**. Include:
    - The name of the library/tool
    - The version number
    - A URL link to the source repository or documentation
    - A brief explanation of how it was used and modified
- **Customization Details**: For both back-end and front-end parts, outline the changes made to any external libraries or code. This could include:
    - Extending functionality to meet new requirements
    - Fixing bugs
    - Adding new features or enhancing performance
    - Adjusting code for compatibility with other system components
- **Final Report**: The final report should clearly distinguish between your original work and any open-source tools you used, with a detailed discussion on the improvements and customizations you introduced.

By following these guidelines, you will ensure a clear and professional distinction between your work and the open-source components used, while demonstrating your understanding of customizing and extending existing systems.

6 Presentation

You need to present your system in the exact time and date that will be informed by the instructor. You can book the presentation time slot on Moodle, according to your preferences.

7 Making group report

In this part a group report should be provided based on the template that is defined in section 6.2.

8 Making individual report

In this part, each students needs to submit an individual document summarizing the **contribution** and the **learning outcomes**. For more details follow the template defined in section 6.3.

9 What to Submit

The whole assignment is submitted by the due date under the corresponding assignment link**. It must be completed by ALL members of the team and one PDF file for group report and one PDF file for the individual report will be submitted. The students should provide their individual report in the same folder that the group report is submitted.**

9.1 Submission Notes

Clearly include the names and student IDs of all members of the team in the submission. Indicate the team leader.

One copy of the assignment is to be submitted. You must make sure that you upload the project to the correct link on Moodle. No email submissions are accepted. Projects uploaded to the wrong system, wrong folder, or submitted via email will be discarded and no resubmission will be allowed. Make sure you can access Moodle prior to the submission deadline. ***The deadline will not be extended.***

Naming convention for uploaded file: Create a PDF or WORD file using the following naming convention. The file should be called a#_studids, where # is the number of the project phase, and studids is the student id of the team leader. For example, for the first project phase, student ID is 12345678 would submit a PDF file named a1_12345678.pdf. Submit your project electronically on Moodle based on the instruction given by your instructor as indicated above: https://moodle.concordia.ca

9.2 Group report template

The bellow shows the submission template for the project.

First page: Project name, Team Name, Team members, student IDs, document purpose (Phase 3: GOF design pattern and class diagram), Date.

Second Page: Table of content

Body of the report: The body of the report will be organized as follow.

I- Summary of the project
   [Small summary about all the things that are done form phase 1 to phase 4. (2 pages are enough)]

II- Front-end
   [The implementation instructions are specified in the implementation section clearly]

III- Back-end

[The implementation instructions are specified in the implementation section clearly]

9.3 Individual report template

I- Summary of the activities

[In this section list all activities the group went over during the semester and high light your contribution on each of them]

II- Learning outcomes

[Summarize what did you learn from this project activities]

III- Conclusion

[Conclude your individual report and talk about the importance of the design and its related overheads.]

10 Grading Scheme for phase IV

System summary	0~10 marks
Front-end	0~30 marks
Back-end	0~50 marks
Documentation and professionalism	0~10 marks
Total	**0-100 marks**

11 Grading Scheme for presentation

Clear and organized	0~25 marks
Respect the time	0~25 marks
Good understanding	0~25 marks
Content is complete	0~25 marks
Total	**0-100 marks**

12 Grading Scheme for individual report

Summary of the activities	0~50 marks
Learning outcomes	0~25 marks
Conclusion	0~25marks
Total	**0-100 marks**