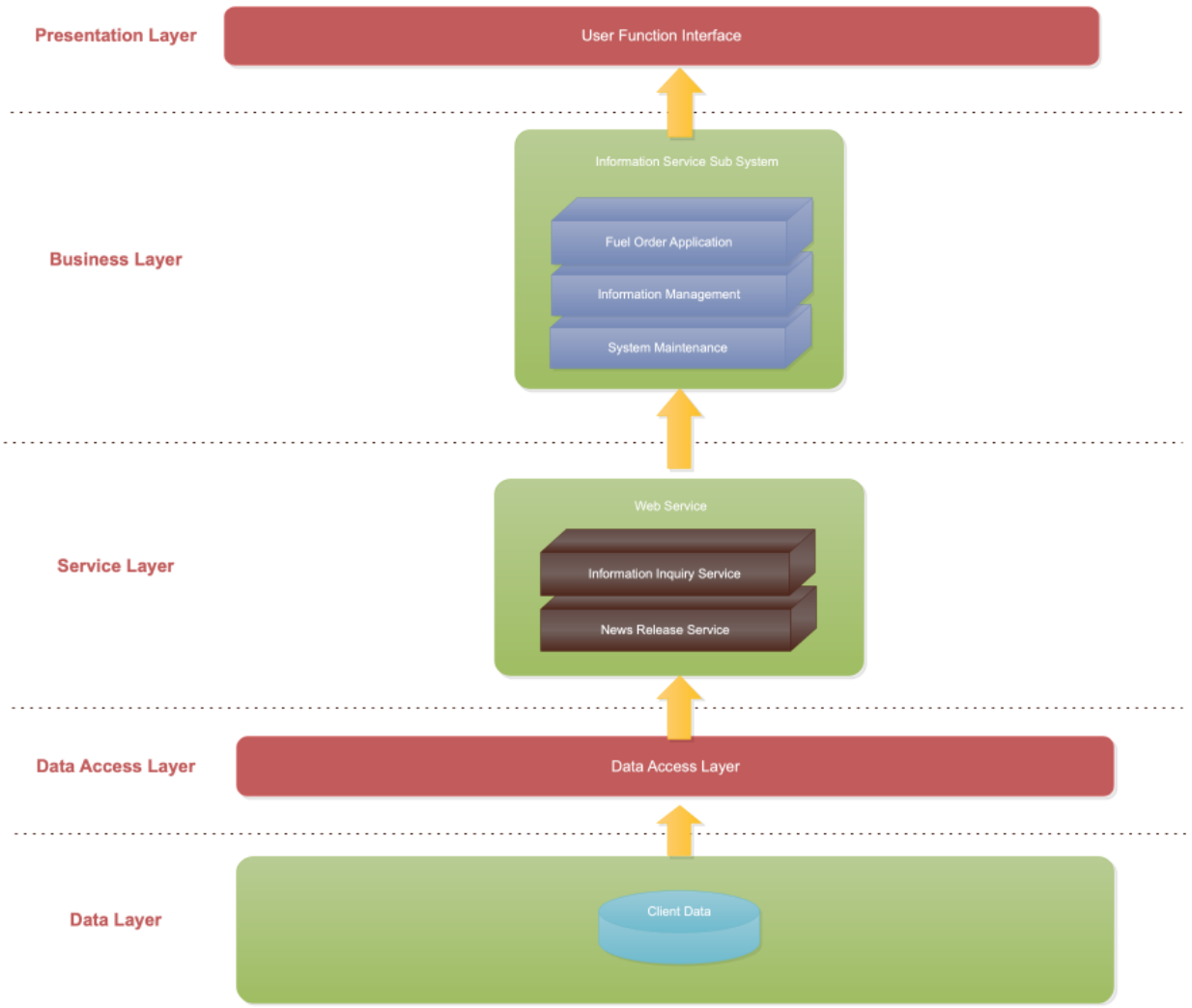
Assignment 01 - Group 25

1. For this project, we will do the following to design and develop the application:
    a. Define Requirements: We will figure out what the application needs to do and what inputs we will have. Most of this is given in the assignment details, but we will ask the professor and teaching assistants for clarification when needed.
    b. Assign Requirements: For the front end increment, we will need to develop a login page (for registered members), a registration page (for non-registered members), a profile page (for first-time registered members), a fuel quote form with various inputs, and a fuel quote history form. For the back end increment, we will need to develop a login module, a client profile management module, a fuel quote module, and a pricing module. For the database increment, we will need to develop a working database with, at minimum, tables for user credentials, client information, and fuel quotes. We will also have an increment for developing the pricing module to calculate the price per gallon.
    c. Design System Architecture: For the front end of our project, we will use HTML, CSS, and JavaScript. The backend will be written in Python. We are going to use MySQL as the database management system for the application.
    d. Develop System Increment: Our first increment will be developing the front end of the application. Our second increment will be developing the back end of the application and connecting it to our front end. Our third increment will be developing the database and connecting it to the rest of our application. Our fourth increment will be creating the pricing module and connecting it to our application. Our fifth increment will be starting the process over and making any necessary changes.
    e. Validate Increment: We will make sure each addition to the project is in working condition and does what it is required to do. We will then test the product and fix any errors before integrating it with the rest of the project.
    f. Integrate Increment: Once an incrementation has been tested and validated, we will add it to the full project.
    g. Validate System: We will make sure that program is still functioning as it should with the new incrementation added. We will make any needed changes before moving on to the next increment.

2. We will use the Incremental Model for this project. The main reason for picking this model is because we are able to produce a working version of software in the first iteration. Additionally, we chose this model for the following reasons:
    - The highest priority system services will receive the most testing during development.
    - Each iteration of the cycle represents an easily managed milestone.
    - Smaller iterations lead to easier testing and debugging.
    - The Incremental Model allows for lower risk of overall project failure.

3. The following is our high-level system design diagram:



4. The following is our contribution table:

Group Member Name	What is your Contribution?	Discussion Notes
Matthew Woodring	I worked on Question 1 of this document, the UML diagram, and the high-level system design diagram.	N/A
Lizeth Gurrusquieta	Worked on Question 1 of the assignment. Also helped with the creation of the UML diagram and architecture diagram.	N/A
Allen Maredia	I worked on Question 2 of this assignment and worked on the UML diagram as well as the high level design diagram.	N/A
Filip Torres	Worked on UML diagram and the high-level system design diagram	N/A

GitHub Link: https://github.com/TheHikingCoder/COSC4353