UECS2344 Software Design
Assignment

This is an **individual** assignment.

A system is required which will be used by the Service Manager of a company which services water filters that are installed in residential properties by the company. The Service Manager currently performs the following tasks using a paper-based system:

- Record requests for service when clients who own water filters installed by the company call and ask for service. The manager asks the client for details such as name, address, and contact number.
- Assign a technician to handle the service request and record the technician details and the date of service.
- Record the service charge after the technician has serviced the water filter for the client and informed the manager of the charge.

You are to design and develop a computer-based system to replace the paper-based system. The new console-based system must assist the manager to perform the tasks mentioned above.

Submission

You are to submit the following IN THE ORDER GIVEN:

1. Analysis Class Diagram (domain model) showing classes, their attributes and relationships with multiplicities. You need not show any operations.
2. Assumptions (regarding domain model, and system, if any).
3. Use Case Diagram.
4. Use Case Descriptions for each use case.
5. Sequence Diagrams, one for each use case.
6. Design Class Diagram showing all classes, their attributes, operations, and relationships with navigability and multiplicity.
7. Package Diagram.
8. Source Code listing for all classes.

Note: Do NOT include login/logout (security) functionality for your application.

Submission Requirements (Week 13)

A. Hardcopy of the above with Cover Page (as shown below) on Week 13 Monday, 9 April 2018 at start of Lecture
   - **can be printed double-sided**

B. Softcopy (of Source Code only) as zipped file with your name as the file name uploaded to wble.utar.edu.my before 12 midnight on Sunday 8 April 2018

COMPONENTS	REQUIRED ELEMENTS
Analysis Class Diagram and Assumptions	Classes, Attributes, Relationships, Multiplicities Class Name centered; Attributes left-aligned Analysis Class Diagram consistent with Assumptions
Use Case Diagram	Actor, Boundary, System Name, Use Cases
Use Case Descriptions	Use Case Name, Actor, Actor Actions, System Responses (e.g. create, update, search, display)
Sequence Diagrams for each Use Case	Actors, Objects, Messages, Return Messages
Design Class Diagram	Classes, Attributes, Operations, Relationships, Multiplicities Navigability Operations with Parameter Name, Parameter Type, and Return Type, where required Class Name centered; Attributes and Operations left-aligned Design Class Diagram consistent with Analysis Class Diagram
Package Diagram	Packages (with Classes/Interfaces), Dependencies
Source Code Listing	Clear Marking of Start of Class, Proper Indentation Code consistent with Design Class Diagram and Sequence Diagrams
Naming Rules	Class and Interface Names must start with Capital Letter Variable and Method Names must start with small letter

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Assignment

Name :

Reg. Number :

	Total Marks	Marks Allocated
Analysis Class Diagram	10	
Use Case Diagram	5	
Use Case Descriptions	10	
Sequence Diagrams for each use case	20	
Design Class Diagram and Package Diagram	20	
Implementation (Java Code)	30	
Adherence to Naming Rules	5	
Total	100	