

# Water Billing Management System

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This project is the main part of **System Design** course. The theme of the project, is to create a complete Water Billing System. A Water Bill Management System is a Desktop Application through which that the people can pay there bills and know our Debts. And the application calculates consumption and debt and the amount required from the user and adds them in a database

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## Motivation

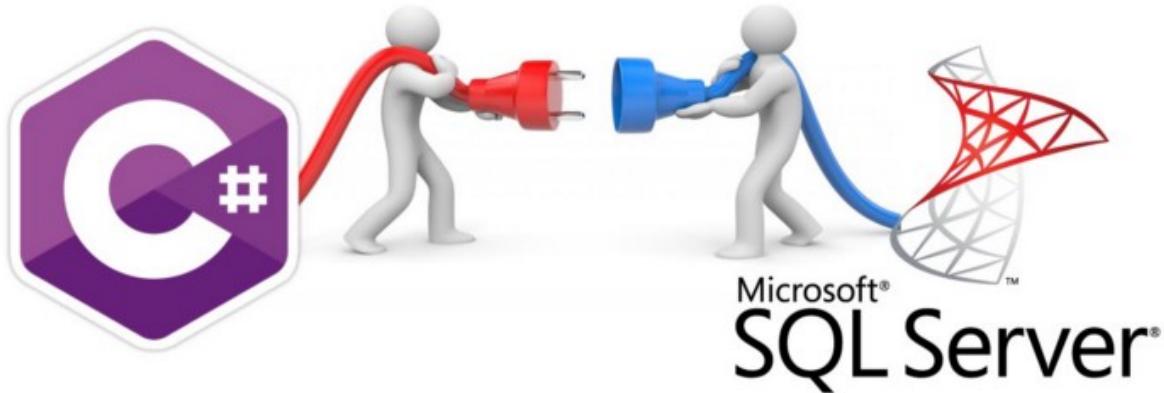
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The Following are the objectives of this project:

- Master Working with **Windows Form App**
- Master Working with **Database**
- Working using the Parallel-model Methodology to plan and develop the software
- Learn How to work together as a team
- Learn the process of the following a given set of System Requirements to develop a software

## Tools and Frameworks

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This project is fully implemented using the C# and MySQL

- C# (pronounced "See Sharp") is a modern, object-oriented, and type-safe programming language. C# enables developers to build many types of secure and robust applications that run in .NET. C# has its roots in the C family of languages and will be immediately familiar to C, C++, Java, and JavaScript programmers. This tour provides an overview of the major components of the language in C# 8 and earlier
- MySQL is an open-source relational database management system. As with other relational databases, MySQL stores data in tables made up of rows and columns. Users can define, manipulate, control, and query data using Structured Query Language, more commonly known as SQL

## Coding Style

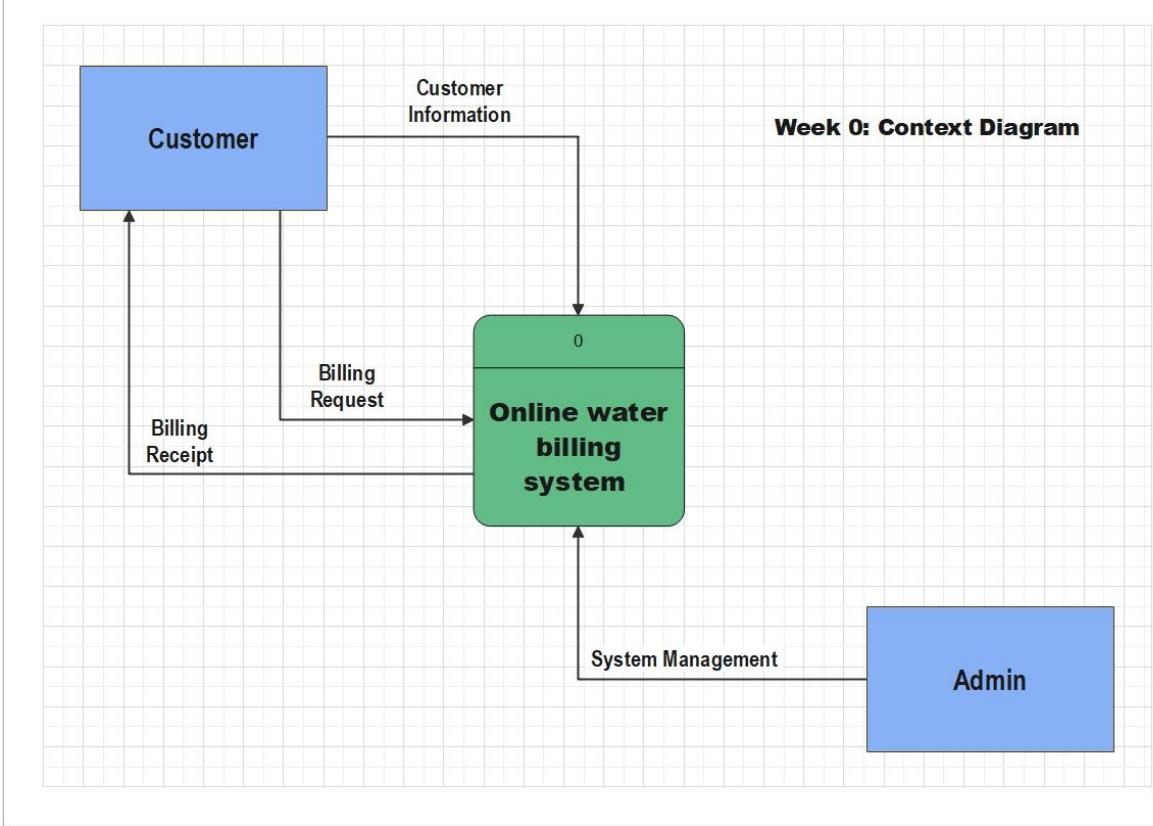
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This project is divided into two main parts, frontend and backend, Our backend is divide into routes that act as a middle point between the client and the database.

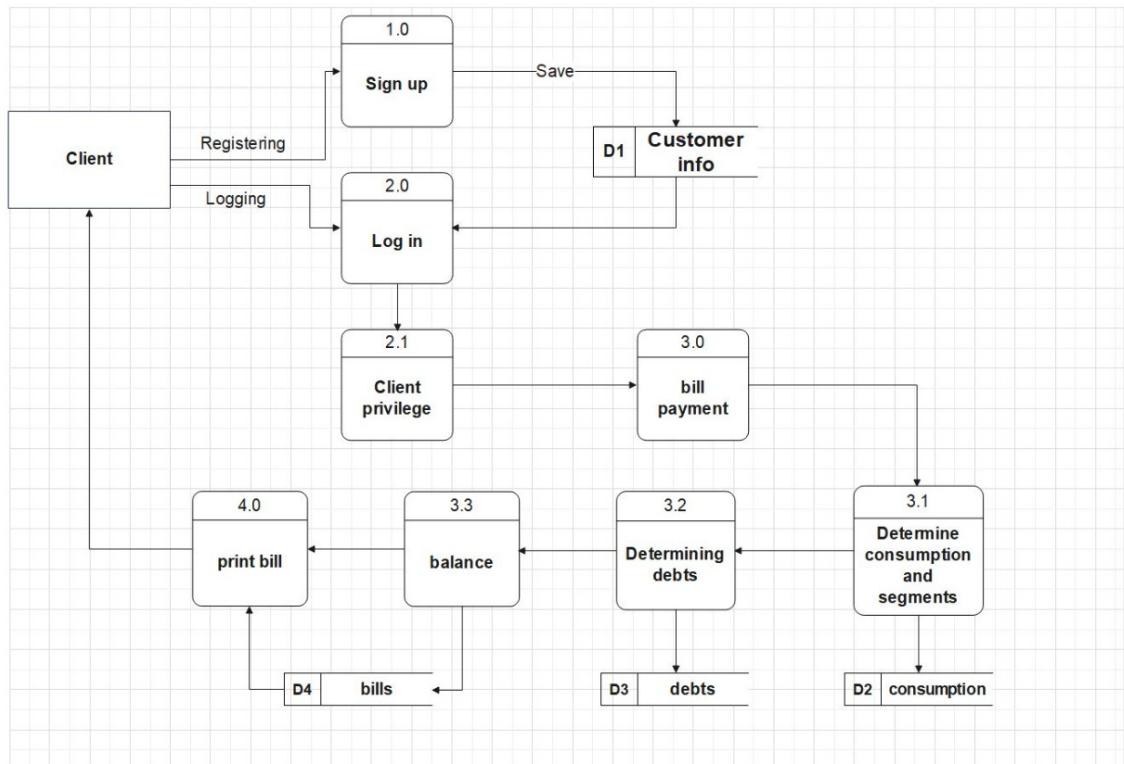
## Diagrams

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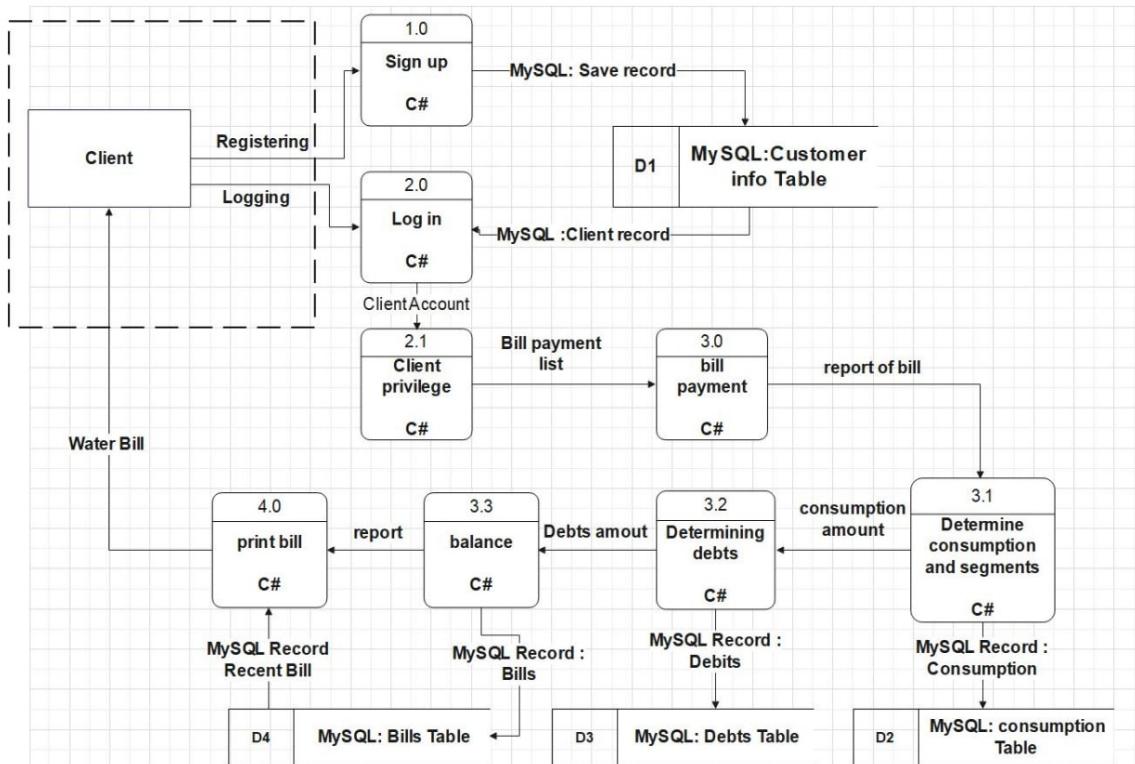
### Week 0 - Context Diagram



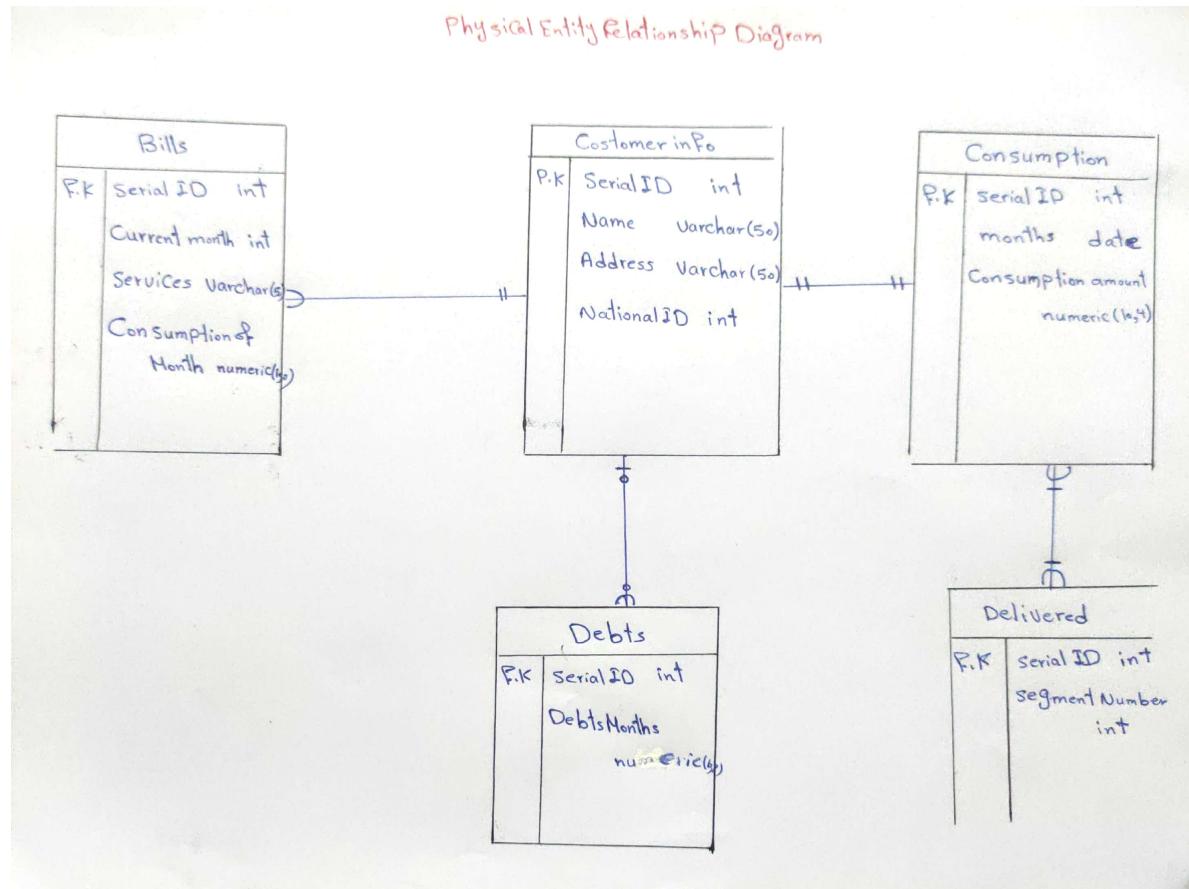
## Week 1 - Data Flow Diagram



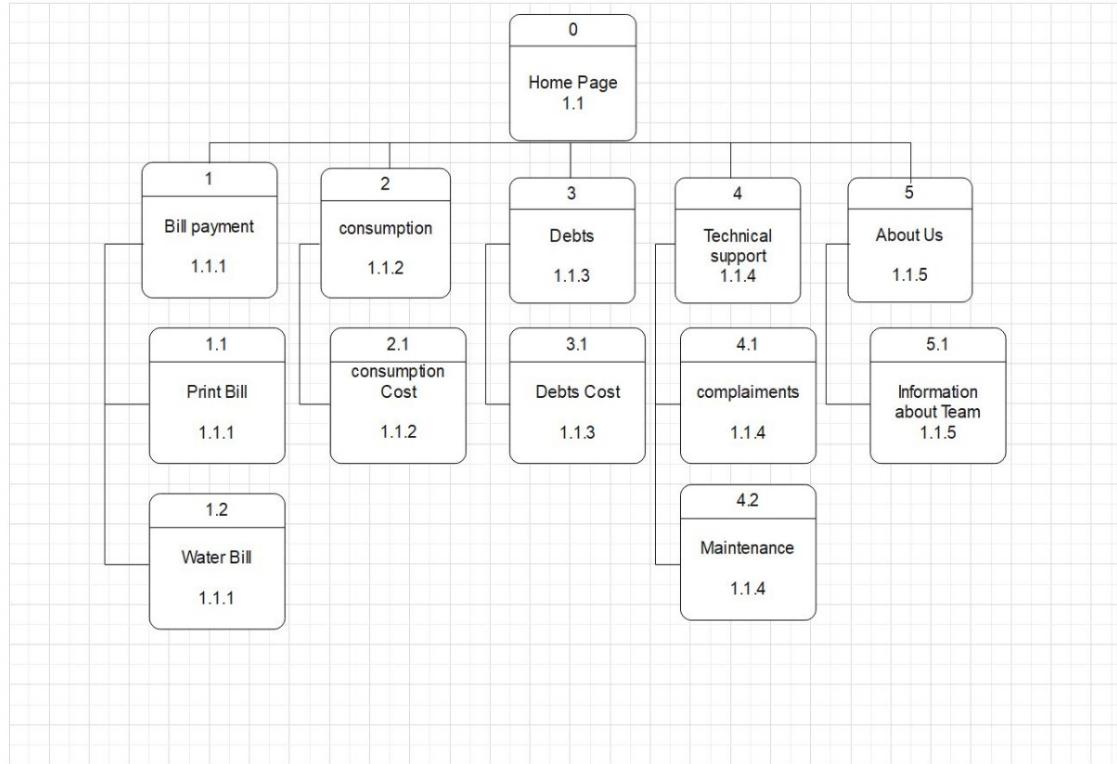
# Week 2 - Logical Entity Relationship Diagram & Physical Entity Relationship Diagram



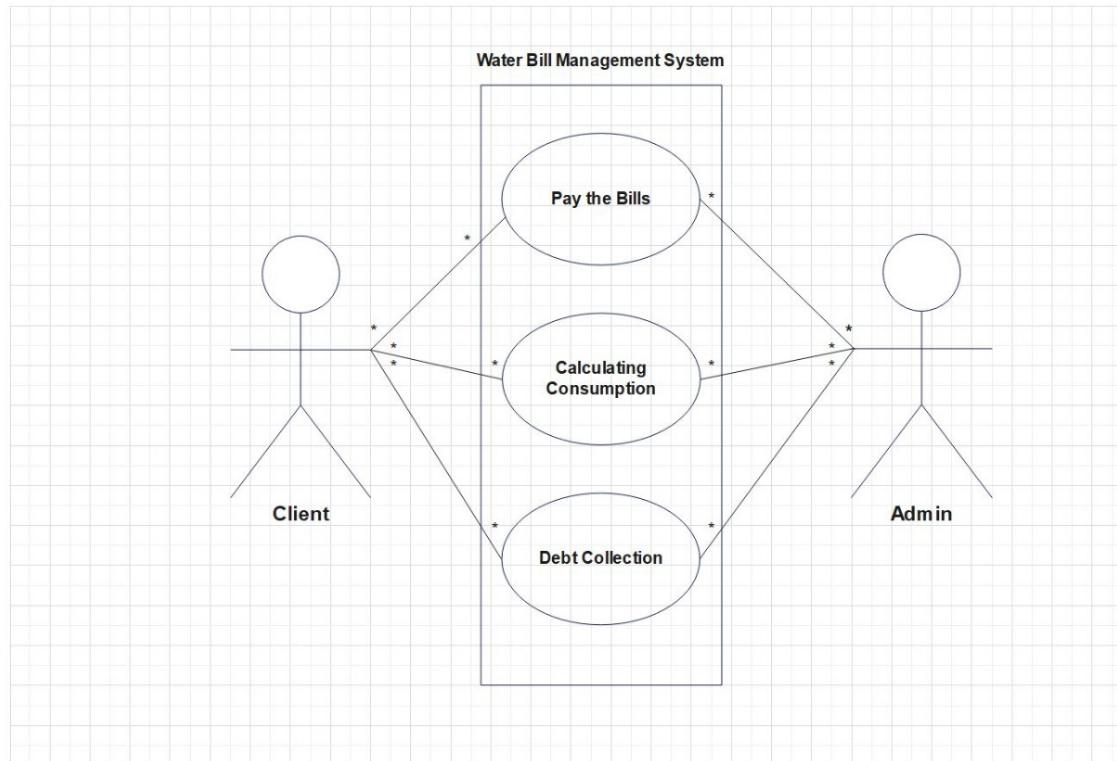
Physical Entity Relationship Diagram

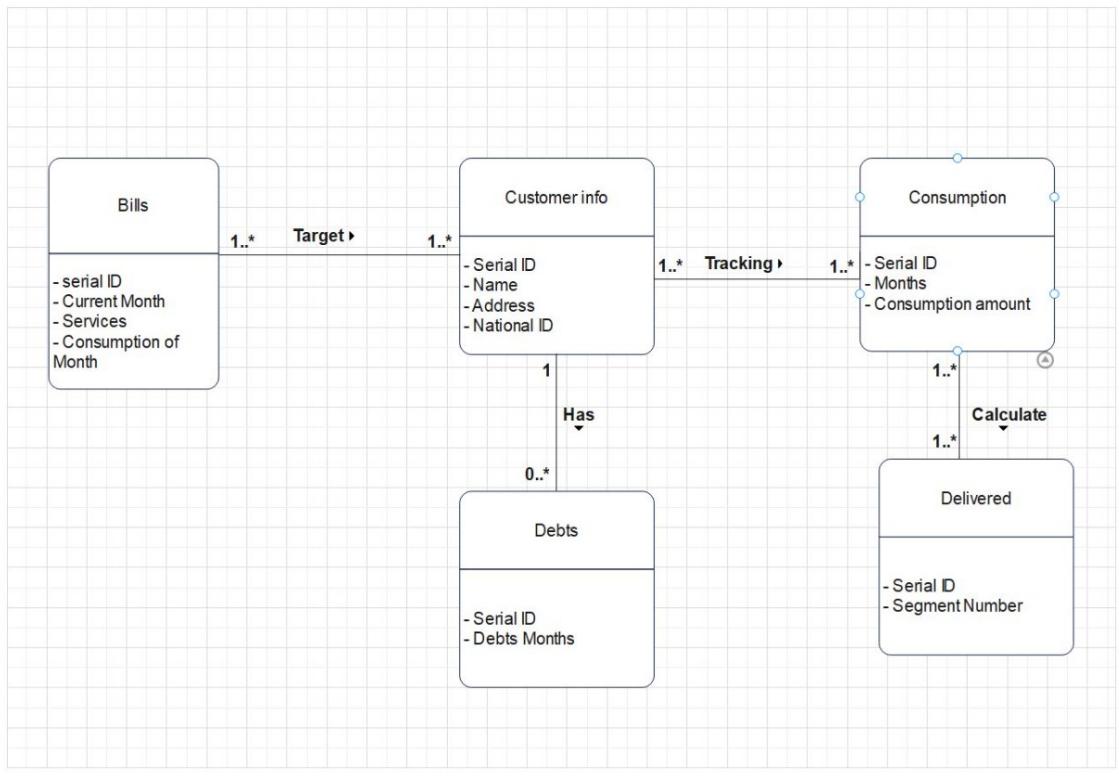


## Week 3 - Interface Structure Diagram

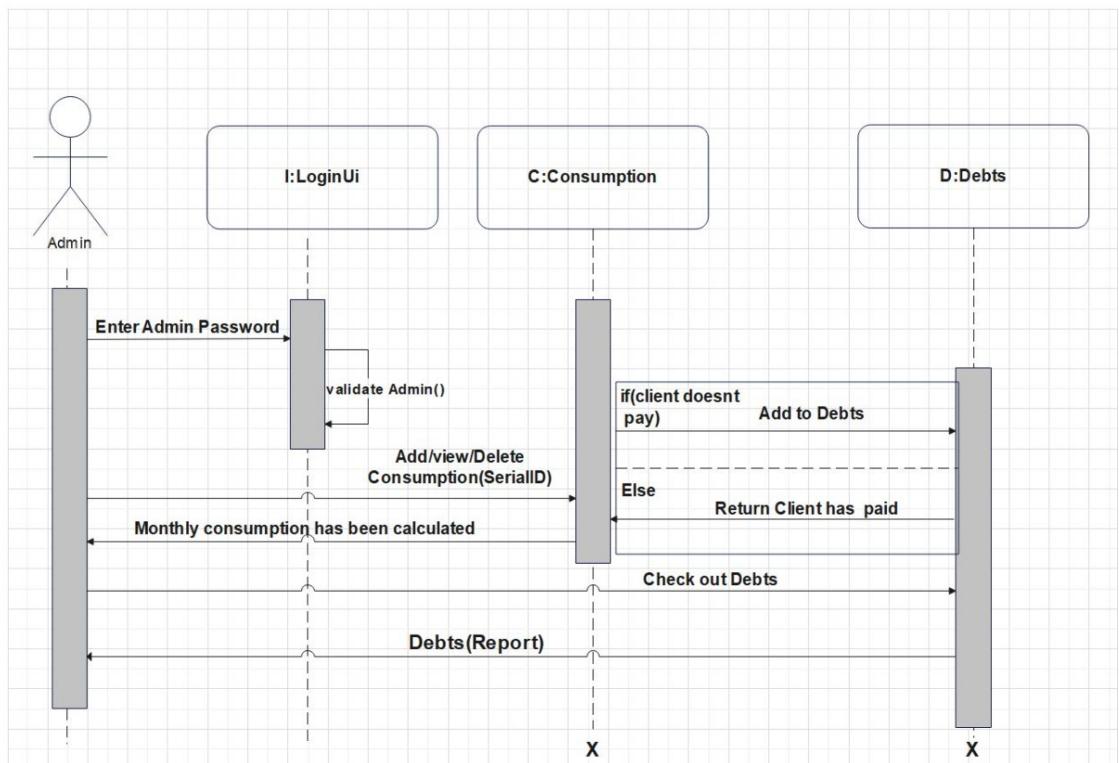


## Week 4 - Use Case Diagram & Class Diagram

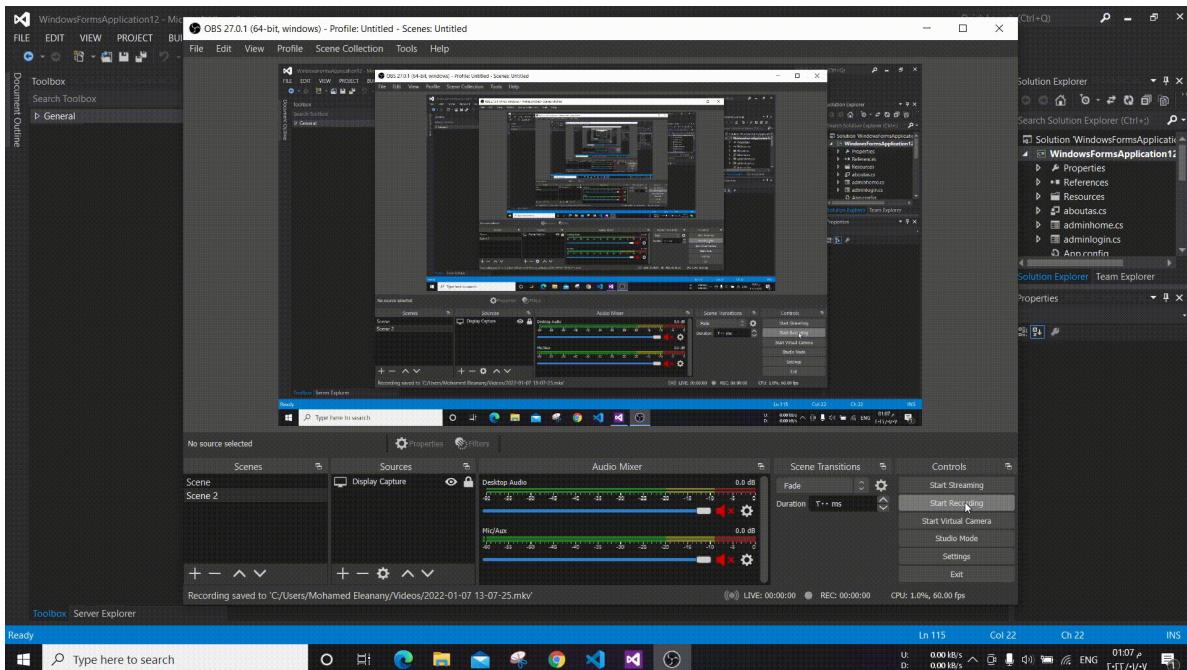




## Week 5 - Sequence Diagram



## Samples



## Screenshots

### Admin

Water Bill App

Home Page      consumation      debts      Log out

SerialID :  Unpaid Month :

Save      Delete      View

Meter No.	Date (Debts)
*	

Water Bill App

Home Page      consumation      debts      Log out

SerialID :  Consumption Amount :

Date :  Segment Number :

Save      Delete      View

Meter No.	Date	Consumption	category
*			

## User

The image shows a mobile application's sign-up screen. In the top-left corner, there is a small icon of a water faucet with three circular water droplets falling from it. The main visual element is a large, semi-transparent circular overlay in the center. Inside this circle is a yellow male head silhouette and a blue body silhouette. To the right of the head is a green circular button with a white plus sign. Below this central graphic, the text "Sign up now" is displayed in a large, bold, white font.

X


## WaterBill Receipt:

**Water Bill App**

- [Home Page](#)
- [Bill payment](#)
- [Debts](#)
- [Technical support](#)
- [About Us](#)
- [Log out](#)

SerialID :

**Search**

	Meter No.	Customer	Block No.	Date	Consumption	Category	Charge
*							

**Print Bill**



**Water Bill App**

Home Page

Bill payment

**Debts**

Technical support

About Us

Log out

**Debts**

SerialID :

Search

	Meter No.	Date (Debts)	charge
*			



**Water Bill App**

Home Page

Bill payment

**Debts**

Technical support

About Us

Log out

**What is the problem?**

Send

## Features

Mainly this App provides an easy way to Pay Bills & Debts. Also, allows admins to perform CRUD operations on a User account in a flexible way. Moreover, our app allows user to pay in order to complete their Payment.

## Meet Our Team



*Omar Khaled*



*Mohamed Dwedar*



*Mohamed Eleanany*



*Michael Samir*



*Mohamed Osama*

*Core*

*Team*