Cairo University  
Faculty of Computers and Information



**CS251**

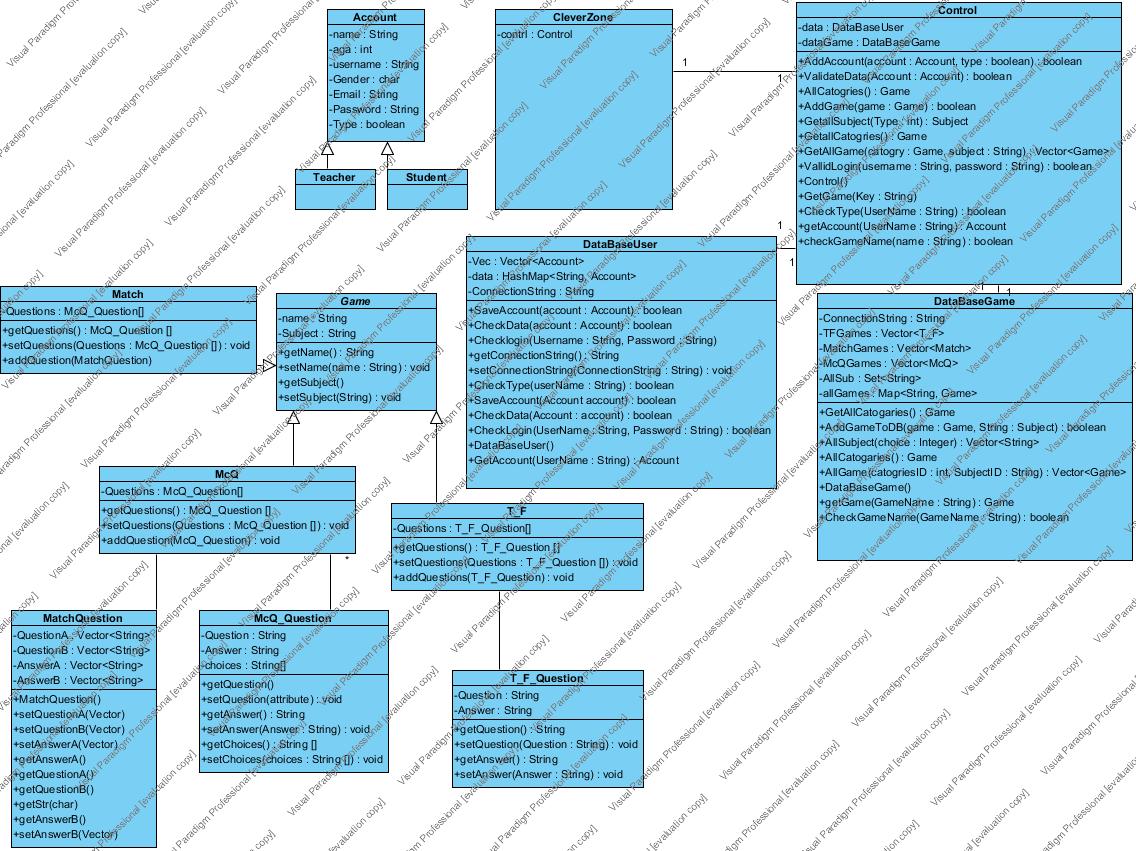
**Software Engineering I**

CleverZone

Software Design

M & N

December 2016



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# Team

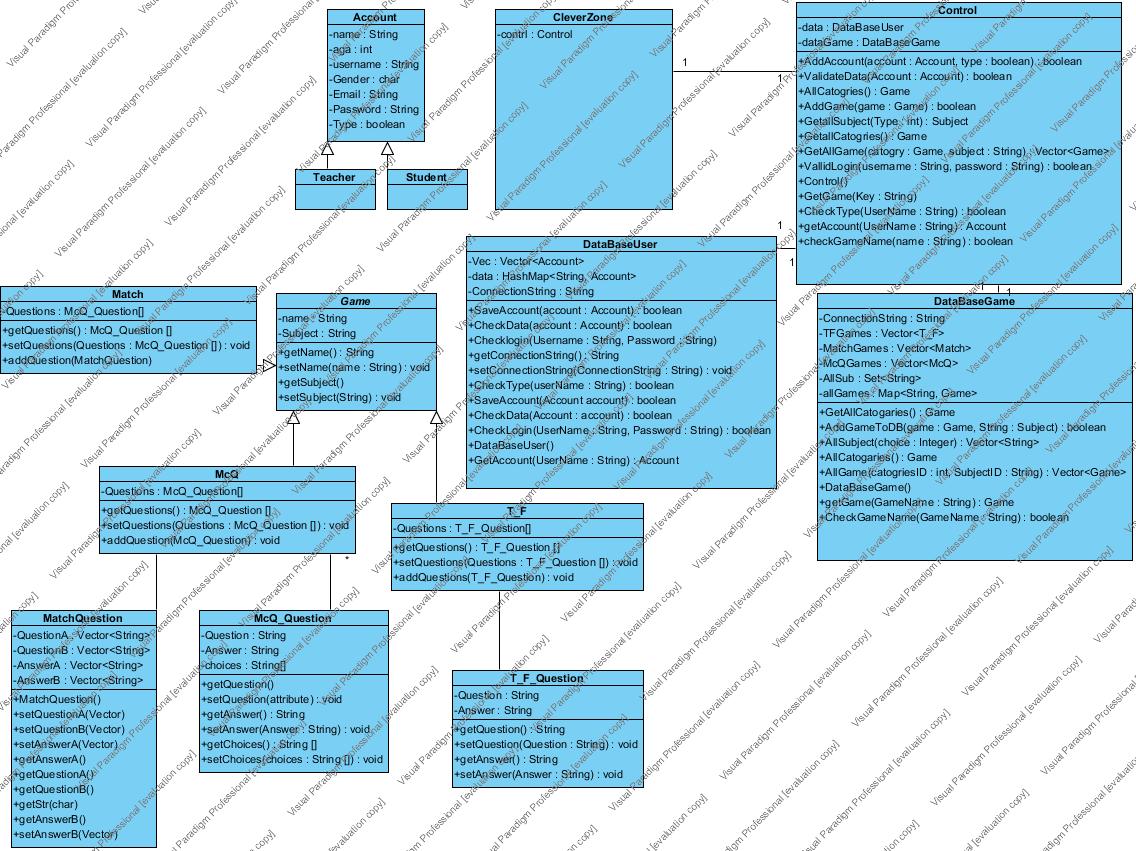
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# Document Purpose and Audience

* This is a Software Design Specification Document. The document completely describes the class diagram and sequence diagram for the three use case (AddGame , PlayGame ,Register ) .
* The audience for this document include the users (Teacher, Student), client, the system developers, Project management team and the system designers.

# System Models

## Class diagrams



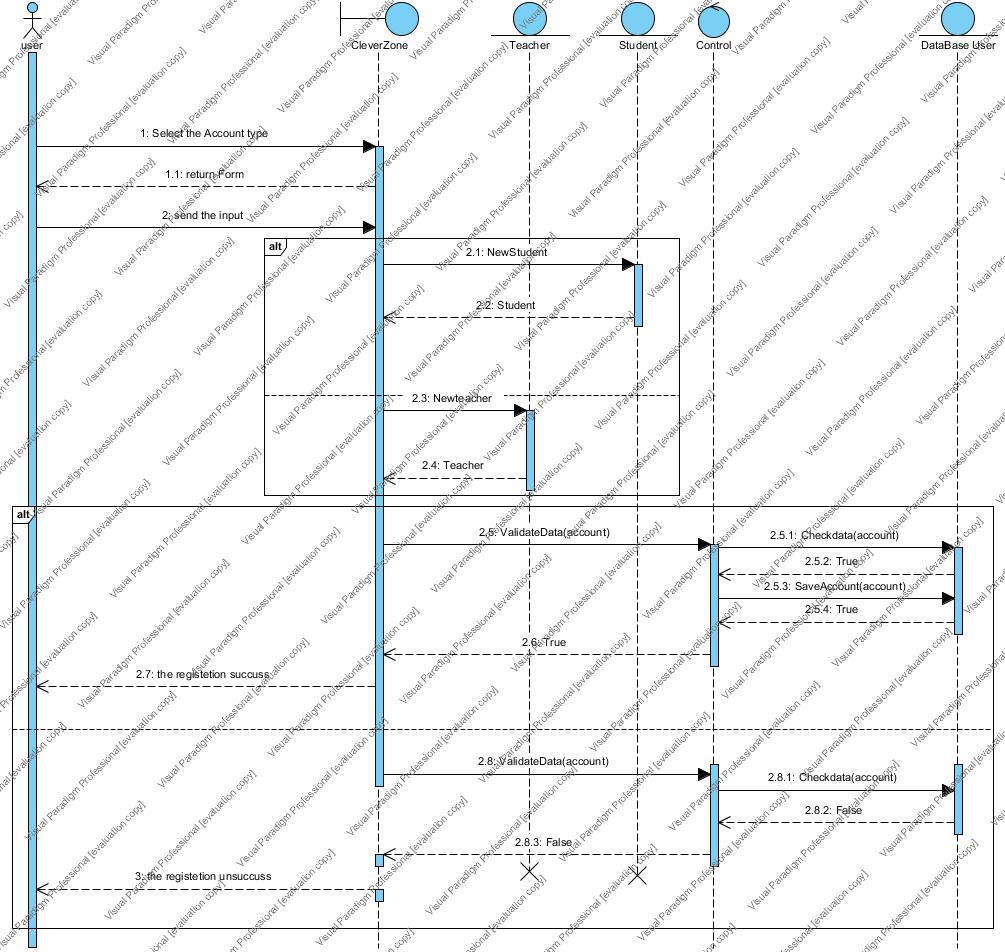
**List down your classes and describe them**

| **Class ID** | **Class Name** | **Description & Responsibility** |
| --- | --- | --- |
| 1 | Account | Generalization of roles of users in the system. |
| 2 | CleverZone | Works as interface between the user and the system (GUI). |
| 3 | Control | Works as intermediate class between GUI and DataBase. |
| 4 | Teacher | Describes one type of user. |
| 5 | Student | Describes one type of user. |
| 6 | Game | Interface class for three classes (match , MCQ , T\_F ). |
| 7 | DataBaseUser | Control DataBase of user. |
| 8 | DataBaseGame | Control DataBase of game. |
| 9 | Match | It have all the methods for the game. |
| 10 | MCQ | It have all the methods for the game. |
| 11 | T\_F | It have all the methods for the game. |
| 12 | MatchQuestion | The questions of the match game |
| 13 | T\_F\_Questions | The questions of the T/F game |
| 14 | McqQuestions | The questions of the MCQ game |

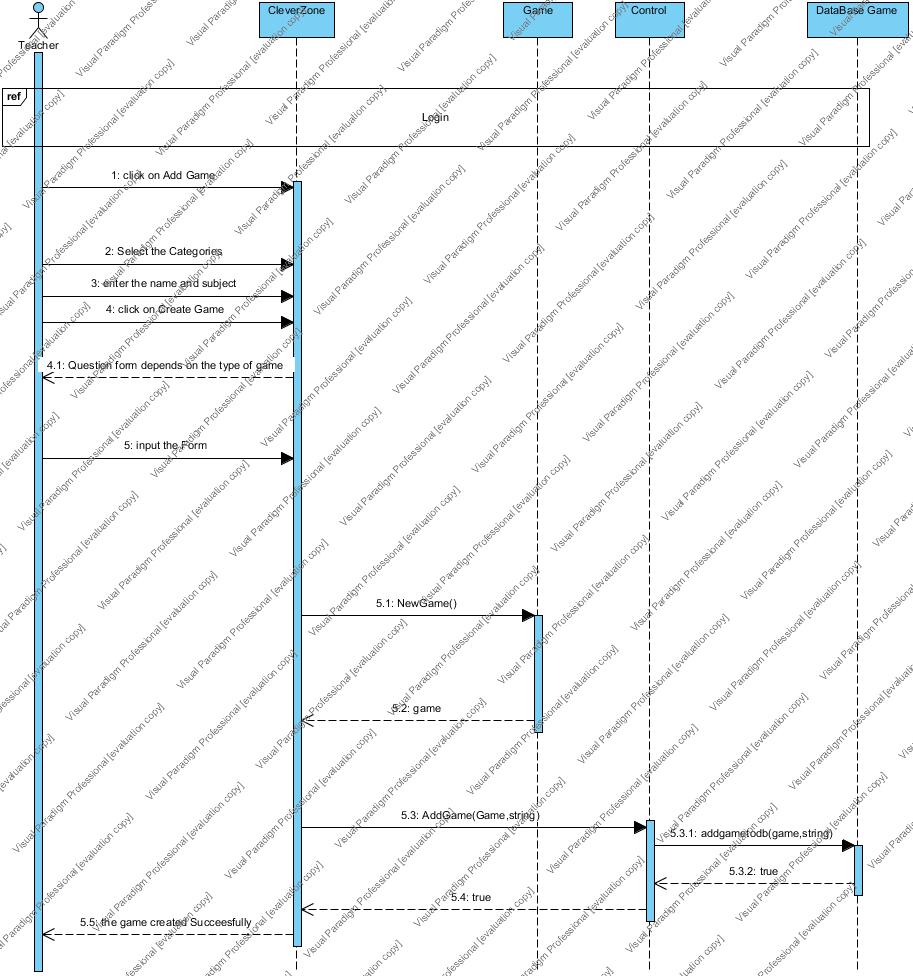
### Important Algorithm

## II. Sequence diagrams

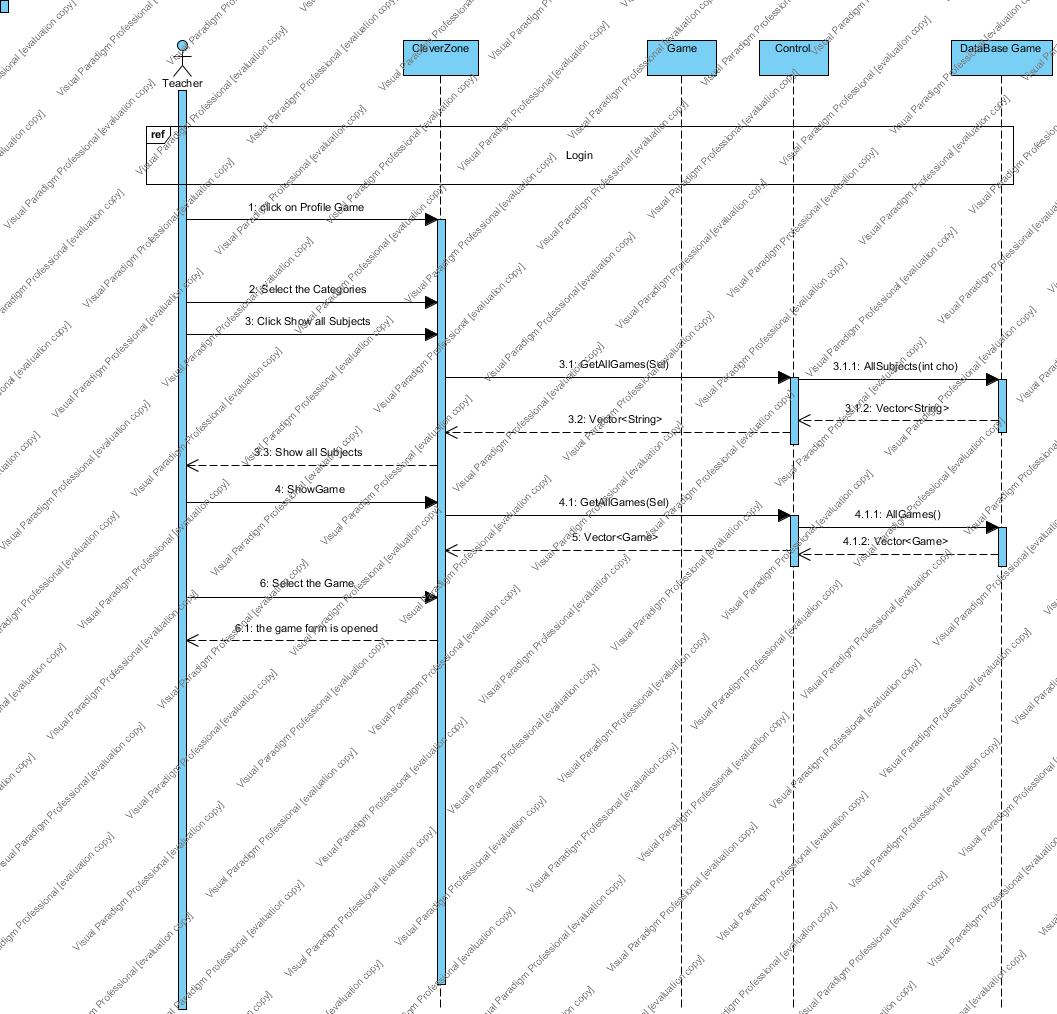
1. **Register.**



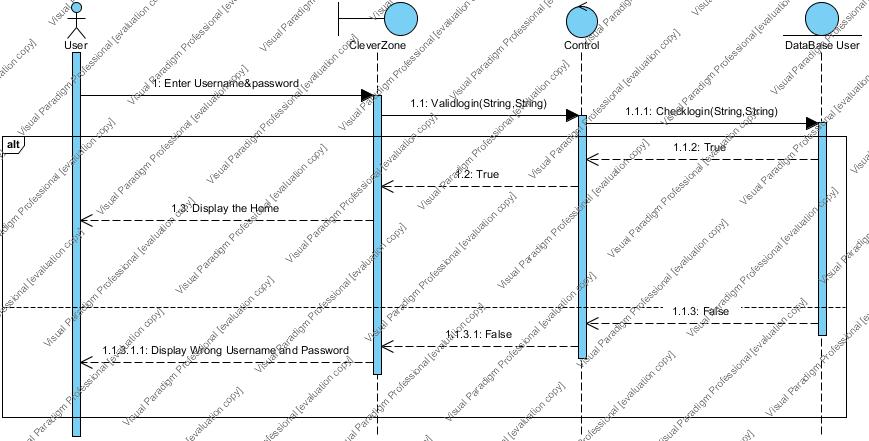
1. **AddGame.**



1. **PlayGame.**



1. **Login.**



### Class - Sequence Usage Table

| **Class Name** | **Sequence Diagrams** | **Overall used methods** |
| --- | --- | --- |
| CleverZone | 1, 2, 3, 4 |  |
| Teacher | 4, 2 |  |
| Student | 4, 3 |  |
| Account | 1 |  |
| Control | 1, 2, 3, 4 | AddAccount  ValidateData  AllCatogries  AddGame  GetallSubject  GetallCatogries  GetAllGame  VallidLogin |
| DataBaseUser | 1, 4 | SaveAccount  CheckData  Checklogin |
| DataBaseGame | 2, 3 | GetAllCatogaries  AddGameToDB  AllSubject  AllCatogaries  GetCatogaries  AllGame  GetSubject |
| Game | 2, 3 | Form  View |

* Ownership Report

|  |  |
| --- | --- |
| **Item** | **Owners** |
| Login and register | *Nour ahmed abbas* |
| Class diagram | *Mahmoud ahmed Mahmoud ali* |
| Play Game | *Mazen mohamed sayed* |
| Add Game | *Mohamed ragab mohamed* |

# Policy Regarding Plagiarism:

# Github

https://github.com/supernour09/CleverZone.git