**COMSATS University Islamabad,   
 Abbottabad Campus**

**Title: Assignment # 01**

**Design Pattern**

**Submitted  *By***

**Ahmed Bin Khalid CIIT/FA20-BSE-062/ATD**

**Ehsanullah CIIT/FA20-BSE-068/ATD**

**Education System**

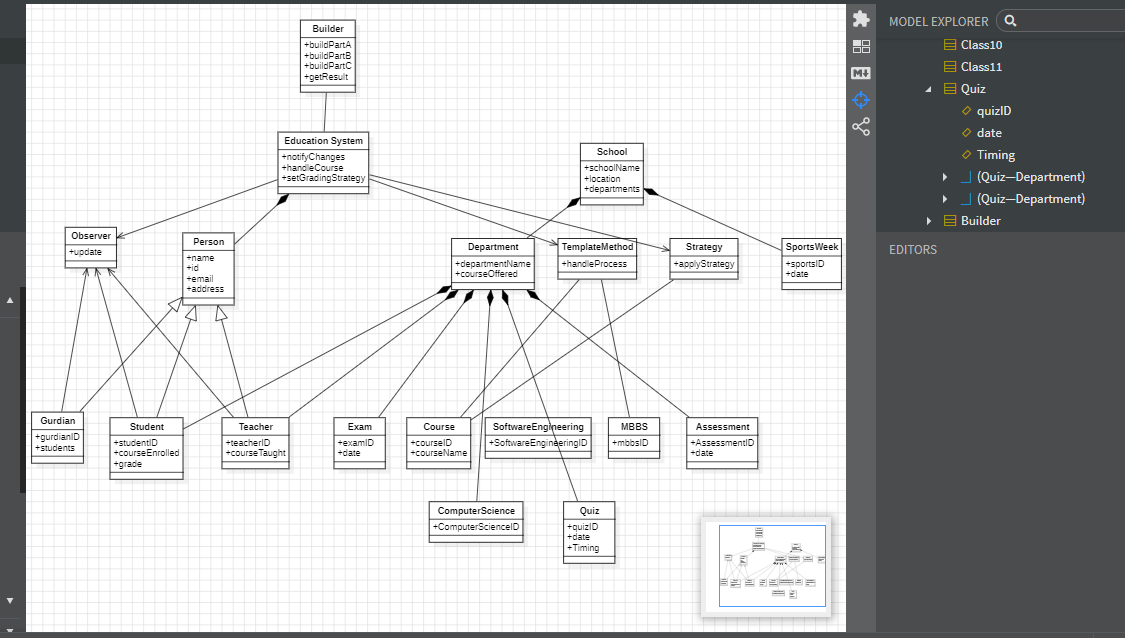
**Problem:**

How can the Education System be designed to manage a comprehensive course structure for a school, considering various departments and their specific offerings? Additionally, how can the system incorporate multiple grading strategies for different courses, ensuring effective communication and notifications between students, teachers, and guardians?

**Explanation:-**

Education system, design patterns such as Observer, Template Method, Strategy, Builder, and inheritance of Person, Student, Teacher, and Guardian classes allow for the effective management and maintenance of education systems. These patterns facilitate the handling of course-related processes, managing grading strategies, and ensuring effective communication and notifications between different entities within the system, allowing for scalability and flexibility in adapting to new requirements. Schools and departments represent the organizational structure of the education system, where the Builder pattern is used to create different parts of the system, such as courses and grading strategies.

**ScreenShot:-**

****