

Seminar 7

Design and implement an online learning platform offers several courses to students. It allows students to enroll in multiple courses and receive updates about their progress and course-related notifications. Throughout the implementation use at least the Observer and Factory Method design patterns.

The Factory pattern can be used to create different types of courses dynamically. Each course may have its own implementation and behavior, but they all adhere to a common interface. The Factory pattern helps encapsulate the creation logic and provides a unified way to create different course objects.

<https://refactoring.guru/design-patterns/factory-method>

The Observer pattern can be used to notify students about updates and notifications related to their enrolled courses. The platform will maintain a list of observers (students) who are interested in receiving updates. Whenever there is a new update or notification for a specific course, all registered observers (students) will be notified.

<https://refactoring.guru/design-patterns/observer>