

Task # 1

You are required to present an outline design of a system that will be used by doctors at a medical practice to keep basic patient records. The system should record each consultation between a doctor and patient, any illness diagnosed by the doctor and any drugs prescribed to the patient. At regular intervals, an auditor will use the system to check whether the same drug is being prescribed repeatedly to a particular patient.

- Sketch a UML use case diagram to represent the functionalities of the system.
- Sketch a UML class diagram for the system architecture supporting the functionalities.
- Sketch a sequence diagram to represent the interaction flow for the entire scenario.
- Write code for the classes based on the UML class diagram.

Task # 2

An online music retailer has decided to create a new service product. Customers will be able to pay for electronic “gift tokens” (of any value). They receive a short identification code that they can send to a friend by email. When the friend receives this code, they can visit the company website and use it to purchase MP3 tracks up to the specified value. Any remainder stays in an account that the recipient can use later.

- Sketch a UML use case diagram to represent the functionalities of the system.
- Sketch a UML class diagram for the system architecture supporting the functionalities.
- Sketch a sequence diagram to represent the interaction flow for the entire scenario.
- Write code for the classes based on the UML class diagram.