Question 1

Open the class `Employee.java` you completed earlier. All employees should have a name and an employee number when created. Implement the appropriate changes to the class to ensure that an Employee object can only be created in one of two ways. Firstly, with a number, a name and a salary of 0.0. Secondly, with a number, a name and a specified salary. Also, it should not be possible to change the employee number. Test your changes.

Question 2

Due to parking problems at LyIT you have been asked to develop a program to implement a Parking Ticket Dispenser. A parking ticket dispenser dispenses parking tickets. To purchase a parking ticket, the customer needs to insert one 50 cent coin into the machine. Each Parking Ticket Dispenser will contain a number of tickets and a number of 50 cent coins. When the coin is inserted, a ticket dispenses. It should be possible to determine the number of tickets, the number of coins and the amount of money in the ticket machine at any given time. The ticket machine can be filled with more parking tickets and the money can be emptied from the machine. When the coins are emptied a receipt should be printed showing the number of 50 cent coins and the amount of money removed. The user should not be able to purchase a parking ticket if there are no tickets left in the machine.

1. Draw the UML class diagram.

2. Implement the `ParkingTicketDispenser` class.

3. Write a simple `ParkingTicketTester` program that tests the `ParkingTicketDispenser` class.