

Since the text on the printed set of problems can easily be misinterpreted (especially the word “menu”), please use the following text instead:

Problem 6 UML (10 points)

Professor Smart is a regular customer at the restaurant “The Hungry Academic”. One day Prof. Smart is asked to help the restaurant design a Java program to keep track of *menus, dishes, ingredients, and chefs*. Since Prof. Smart is only a Java beginner, he asks you to help him.

“The Hungry Academic” is a kind of luxury restaurant that only serves 5-course dinners – here called ‘menus’. The ‘only’ choice a customer can make is then between a few of these 5-course menus.

A menu has thus exactly five dishes, but a dish may occur in several menus. Each dish can contain at most five ingredients. Each menu has one responsible chef, and each ingredient has one chef that is responsible for purchasing sufficient supplies of the ingredient. One chef may be responsible for more than one menu and more than one ingredient.

Draw a UML class diagram for the Java program. Give names to the classes, draw association links between them and insert correct numbers on both sides of the association