Programming Languages 2
Lesson 4

Create a basic project handling a deck of cards

1. Create a new project named BlackJack. Leave the Main class name and package name as they are.

2. Add a new enum storing possible card colors (HEARTS, DIAMONDS, CLUBS, SPADES)

3. Add another enum storing the possible card values (TWO, THREE, FOUR, FIVE, SIX, SEVEN, EIGHT, NINE, THE, JACK, QUEEN, KING, ACE).

4. For the second enum also set the numerical values of the card in the enum.

5. Add a new class named Card into the project. A Card has a color and a value.

6. Instantiate two new cards in the Main class and print out the values of them.

Upgrade a given recipebook

1. Download the recipes.zip file from the homepage, and import it to netbeans. (File->Import Project...->From ZIP

2. Open all files in the recipes package. There are three classes and one **interface.**

3. Go through the files and understand, what is done by the project.

4. Run the project. Figure out, what is the problem, and solve it.

5. Implement the RecipeBook interface by the class MyRecipeBook.
    1. The addRecipe adds a new recipe given as a parameter.
    2. The searchRecipe returns the recipe that has the same name as the parameter.
    3. The deleteRecipe deletes the recipe with the given name.
    4. The printAllRecipes print out all recipes.

Use a Vector of Dish-es to store the recipes. You can see how it works in the DummyRecipeBook class.

6. Read the name of a new Dish from the keyboard.
   (You can do this with the Scanner class. Instantiate a new scanner using
   `Scanner sc = new Scanner(System.in);`

Then use the nextLine method of it to read a String till “enter”.)

7. Read the time of a new Dish from the keyboard.
   (You can do this using the same scanner as above. This time use the `nextInt()` method of `Scanner`.)

8. Add three ingredients of the Dish using `Scanner.next()`.

9. Finally read the recipe from the keyboard using `Scanner.nextLine();`

10. Add the recipe to the RecipeBook that you create using MyRecipeBook;

11. The problem in exercise 4 is the following. Since the Dish class does not have any toString methods, it prints out the object Ids when it is called. You can solve this problem by adding your own toString method to the class. It may use the following form: “name (time)”