

Exercise 11: (Last submitting date: Dec. 2)

Finish the following exercises (merged in classes)
in [ref_ch09_inheritance.pdf](#)

- ■ **E9.4** Add a class `NumericQuestion` to the question hierarchy of Section 9.1. If the response and the expected answer differ by no more than 0.01, accept the response as correct.
- ■ **E9.5** Add a class `FillInQuestion` to the question hierarchy of Section 9.1. Such a question is constructed with a string that contains the answer, surrounded by `_`, for example, "The inventor of Java was `_James Gosling_`". The question should be displayed as
The inventor of Java was _____
- **E9.6** Modify the `checkAnswer` method of the `Question` class so that it does not take into account different spaces or upper/lowercase characters. For example, the response "JAMES gosling" should match an answer of "James Gosling".
- ■ **E9.7** Add a class `AnyCorrectChoiceQuestion` to the question hierarchy of Section 9.1 that allows multiple correct choices. The respondent should provide any one of the correct choices. The answer string should contain all of the correct choices, separated by spaces. Provide instructions in the question text.
- ■ **E9.8** Add a class `MultiChoiceQuestion` to the question hierarchy of Section 9.1 that allows multiple correct choices. The respondent should provide all correct choices, separated by spaces. Provide instructions in the question text.
- ■ **E9.9** Add a method `addText` to the `Question` superclass and provide a different implementation of `ChoiceQuestion` that calls `addText` rather than storing an array list of choices.
- **E9.10** Provide `toString` methods for the `Question` and `ChoiceQuestion` classes.