ISLAMIC UNIVERSITY OF TECHNOLOGY

SWE 4302

LAB 11

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Contents

You have been studying object-oriented programming for more than 1 year. As a programmer, you will spend more time reading and understanding existing code than writing it from scratch. Now, it's time to develop that skill by analyzing the given project in the classroom.

For today's task, carefully examine the provided code and answer the following questions to the best of your knowledge.

1 TASKS

1. Identify the design smells of the given project with proper explanation.

2. Propose a solution to your indentified smells.

3. Use of 'static' keyword can be evil, so you need to remove 'static' and use runtime polymorphism to create the queries in 'BookServiceImpl' class.

4. There are two implementation of the Singleton pattern. Identify which one is more memory-intensive than the other and explain why.

5. How would you modify the 'Cart' class to handle multiple books and calculate the total price of the selected items in the cart?

Please provide your answers in document format. Clearly mention the filename and line numbers when referencing the code. If any parts of your answers are provided in a .java file, ensure you specify which answers are included in the file.

You will submit a document in '*yourID*-Lab11.pdf' naming format in the Google Classroom. You will have 2 hour to finish the task.