Software Architecture
Exercise – 4+1 View Model (Stack)

BSc

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Exercise Opening
Overview

In this exercise you apply Kruchten's 4 + 1 view model to model and then also code an abstract data type Stack in Java.

Exercise Agenda

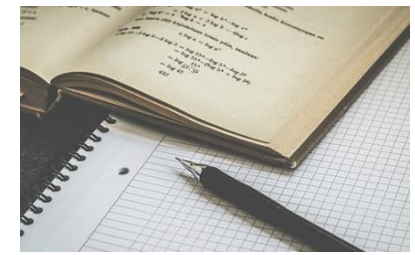- ■ 4+1 View Model of a Stack

4+1 View Model
Stack Scenario

You are asked to design a data type Stack by transforming the scenario I provide you below into a logical view of Kruchten's view model.

Next, you will develop a suitable development view. Once you are satisfied with your design, you will also code your Stack design in Java.

Please use this stack scenario as input:

1. You add the element "stack" to an empty stack (push).

2. You add the element "first" to the stack (push).

3. You add the element "My" to the stack (push).

4. As long as the stack is not empty (isEmpty) ...
    1. read the topmost stack element (top)
    2. remove the topmost stack element (pop)

4+1 View Model
Stack – Logical View

How do you transfer the stack scenario into the Logical View of Kruchten's View Model?

4+1 View Model
View Model Applied

How do you represent the Stack in the development view?

4+1 View Model
View Model Applied

Finally, how do you code your Stack model in Java?

Questions