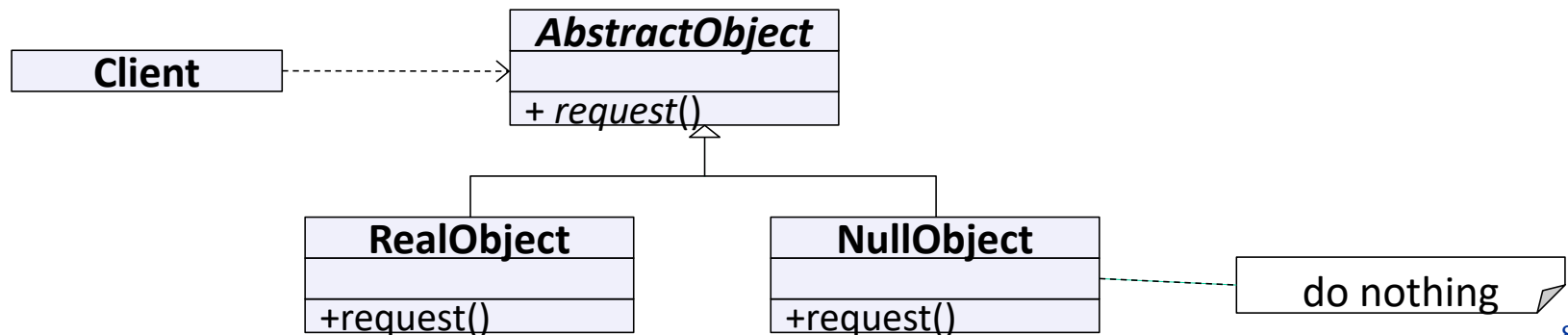




# Homework 0: Null Object Pattern

- ❑ When: Replace if check for a null value, and provide default behavior in case data is not available.
- ❑ An abstract class specifies various operations to be done, concrete classes extending this class and a null object class providing do nothing implementation of this class and will be used where we need to check null value.
- ❑ Write a Java program to demonstrate Null Object Pattern



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# Homework 1: Requirements Statement

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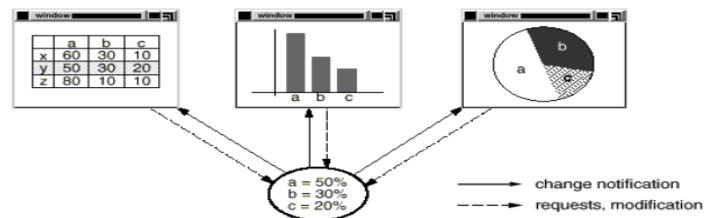
- ❑ The Composition class maintains a collection of Component instances, which represent text and graphical elements in a document.
- ❑ A composition arranges component objects into lines using a linebreaking strategy.
- ❑ Each component has an associated natural size, stretchability, and shrinkability.
- ❑ The stretchability defines how much the component can grow beyond its natural size; shrinkability is how much it can shrink.
- ❑ When a new layout is required, the composition calls its compose method to determine where to place linebreaks.
  
- ❑ There are 3 different algorithms for breaking lines:
  - Simple Composition: A simple strategy that determines line breaks one at a time.
  - Tex Composition: This strategy tries to optimize line breaks globally, that is, one paragraph at a time.
  - Array Composition: A strategy that selects breaks so that each row has a fixed number of items. It's useful for breaking a collection of icons into rows, for example.



## Homework 2: Requirements Statement

□ In a spreadsheet application,

- A spreadsheet object, bar chart object, and pie chart object can depict information in the same application data object by using different presentations.
- When the user changes the information in the spreadsheet, the bar chart reflects the changes immediately, and vice versa.
- Both a spreadsheet object and bar chart object can depict information in the same application data object by using different presentations.





# Homework 8-0: Dependency Injection

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- ☐ Explain what Dependency Injection is, and each type of dependency injection?
- ☐ Give examples for each type of dependency injection.
- ☐ Explain how dependency injection is implemented in the Spring Framework.



# Homework 8-1: Requirements Statements

## □ In FileViewer,

- We have a TextView object that displays text in a window.
- TextView has no scroll bars by default, because we might not always need them.
- We can also add a thick black border around the TextView.
- It is highly likely that we will support various file formats for display in the future.



# Homework 8-2: Requirements Statement

- ☐ A powerful application can present multiple documents at the same time.
- ☐ These documents include DrawingDocument, TextDocument, and so on.
- ☐ The application is responsible for managing documents and creating them as required.