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1.5 Flash

✦ Testar o Gemini Advanced



fix the code smell "The method getRandomCard(List) has a NCSS line count of 17."using "Extract method" refactoring technique

...



Java



```
public String getRandomCard(List<Box> otherBoxes) {  
    if (otherBoxes == null || otherBoxes.isEmpty()) {  
        return null;  
    }  
  
    Box allBoxes = getAllCardsFromBoxes(otherBoxes);  
    Integer randomCard = allBoxes.getRandomCard();  
  
    if (randomCard == null) {  
        return "No card found";  
    }  
  
    Card card = getCardFromManager(randomCard);  
    return buildResponse(randomCard, card);  
}  
  
private Box getAllCardsFromBoxes(List<Box> otherBoxes) {  
    Box allBoxes = new Box();  
    for (Box box : otherBoxes) {  
        allBoxes.addCards(box.getCards());  
    }  
    return allBoxes;  
}  
  
private Card getCardFromManager(Integer randomCard) {  
    CardManager manager = CardManager.getCardManager();  
    return manager.getCard(randomCard);  
}  
  
private String buildResponse(Integer randomCard, Card card) {  
    String response = "[" + randomCard + "] ";  
    response += "The random question was: " + card.getQuestion() + " | ";  
    response += "The answer is: " + card.getAnswer();  
    return response;  
}
```

Explanation:

- **Extracted Methods:**



- `getAllCardsFromBoxes(List<Box>)` : This method now encapsulates the logic of combining cards from all the provided boxes into a single `Box` object.
- `getCardFromManager(Integer)` : This method handles the retrieval of the `Card` object from the `CardManager` based on the `randomCard` ID.
- `buildResponse(Integer, Card)` : This method constructs the final response string, improving readability and maintainability.

- **Reduced NCSS:** By extracting these methods, the original `getRandomCard()` method has been significantly reduced in size, lowering its cyclomatic complexity and improving readability.

- **Improved Readability:** The code is now more modular and easier to understand. Each method has a clear and concise purpose, making it easier to follow the logic and identify potential issues.

- **Increased Maintainability:** If changes are needed to how cards are retrieved from boxes, how cards are obtained from the manager, or how the response is formatted, the changes can be made in the respective extracted methods without affecting the core logic of the `getRandomCard()` method.

This refactoring addresses the "NCSS line count of 17" code smell by breaking down the original method into smaller, more manageable units, improving overall code quality and maintainability.



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