

fix the Feature Envy code smell using the Move Method refactoring technique

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I'll help you fix the Feature Envy smell where some methods in StudyCardsController seem to be more interested in the LeitnerSystem class than their own class.

Here's the step-by-step solution:

1. Move `getRandomCardFromBox` and related logic to LeitnerSystem class
2. Simplify the StudyCardsController by removing redundant method
3. Update the call in the controller to use the new method location


[StudyCardsController.java](#)

Remove `getRandomCardFromBox` method and simplify the handler to directly use LeitnerSystem's method.

 StudyCardsController.java +4 -0

[LeitnerSystem.java](#)

Add the moved method and consolidate the random card functionality.

 LeitnerSystem.java

This refactoring:

1. Moves the random card functionality completely to LeitnerSystem where it belongs
2. Simplifies the controller by removing duplicated logic
3. Improves the cohesion of the LeitnerSystem class
4. Reduces the coupling between controller and implementation details

The code smell is fixed by ensuring that methods are placed in the class that contains the data they primarily operate on.



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now theres a error on studyCardsControllerTest, can you solve it without changing any code on the test?


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I notice that we need to add the `getRandomCardFromBox()` method back to the StudyCardsController since the test depends on it, but we make it delegate to the LeitnerSystem implementation to maintain our Feature Envy fix.

Here's the solution:

[StudyCardsController.java](#)

Add the `getRandomCardFromBox()` method that delegates to LeitnerSystem:

 StudyCardsController.java

This solution:

1. Maintains backward compatibility with the test
2. Keeps the Feature Envy fix by delegating to LeitnerSystem
3. Doesn't require any changes to the test code
4. Acts as an adapter between the old and new implementation

The test will now pass since it can still call `getRandomCardFromBox()` on the controller, while the actual implementation remains in the