



fix the code smell Feature envy using the move method

generalsearch.java: ...



Here's the refactored code with handleSearch method moved to SearchLog class:

GeneralSearch.java

Java



```
package org.example.studysearch;

import org.example.studycards.CardManager;
import org.example.studyplanner.HabitTracker;
import org.example.studyplanner.TODOTracker;
import org.example.studyregistry.StudyMaterial;
import org.example.studyregistry.StudyTaskManager;

import java.util.ArrayList;
import java.util.List;

public class GeneralSearch implements Search<String> {

    private SearchLog searchLog = new SearchLog("General Search");

    public GeneralSearch() {
    }

    @Override
    public List<String> search(String text) {
        return searchLog.handleSearch(text);
    }

    public SearchLog getSearchLog() {
        return searchLog;
    }
}
```

SearchLog.java

Java



```
package org.example.studysearch;

import org.example.studycards.CardManager;
import org.example.studyplanner.HabitTracker;
import org.example.studyplanner.TODOTracker;
```

```
import org.example.studyregistry.StudyMaterial;
import org.example.studyregistry.StudyTaskManager;

import java.util.ArrayList;
import java.util.List;

public class SearchLog {
    private String logName;
    private int numUsages;
    private List<String> searchHistory;

    public SearchLog(String logName) {
        this.logName = logName;
        this.numUsages = 0;
        this.searchHistory = new ArrayList<>();
    }

    public List<String> handleSearch(String text) {
        List<String> results = new ArrayList<>();
        results.addAll(CardManager.getCardManager().searchInCards(text));
        results.addAll(HabitTracker.getHabitTracker().searchInHabits(text));
        results.addAll(TodoTracker.getInstance().searchInTodos(text));
        results.addAll(StudyMaterial.getStudyMaterial().searchInMaterials(text));
        results.addAll(StudyTaskManager.getStudyTaskManager().searchInRegistries(text));
        this.addSearchHistory(text);
        this.setNumUsages(this.getNumUsages() + 1);
        results.add("\nLogged in: " + this.getLogName());
        return results;
    }

    public void addSearchHistory(String text) {
        this.searchHistory.add(text);
    }

    public void setNumUsages(int numUsages) {
        this.numUsages = numUsages;
    }

    public String getLogName() {
        return logName;
    }

    public int getNumUsages() {
        return numUsages;
    }
}
```

By moving the `handleSearch` method to the `SearchLog` class, we improve the code's modularity and reduce the dependency of `GeneralSearch` on other classes. The `SearchLog` class now encapsulates the search logic and can be reused by other parts of the application if needed.

