Java Programming II
Lab2

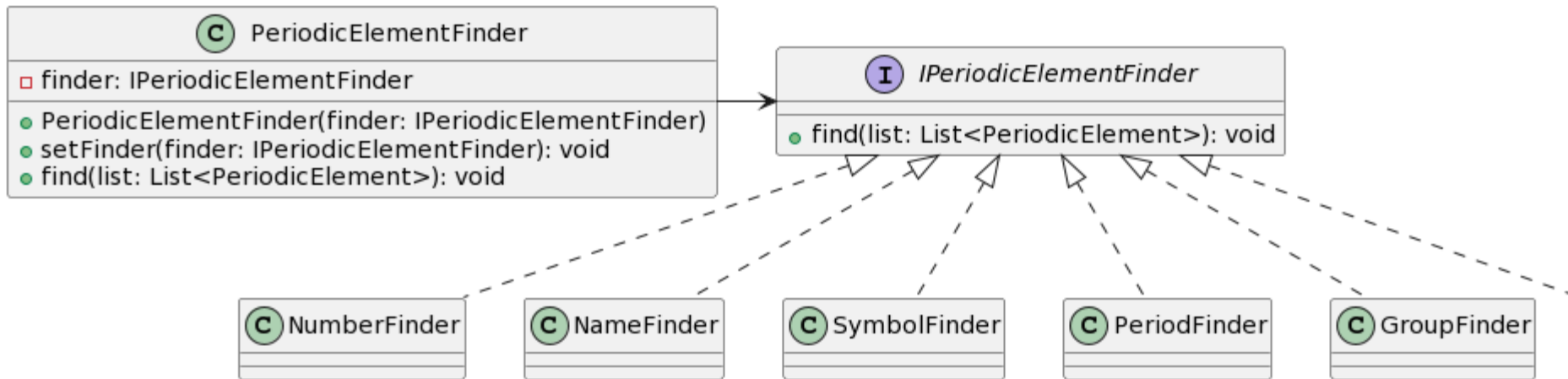514770-1
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Lab2

- Practice to write a **search** program that search for **Periodic Element** by **various methods** using **Strategy pattern.**
- Example
  - You can search for Periodic Element by using various methods, such as number, name, symbol, period, group, phase.
  - PeriodicElementFinder class use different search algorithm in find() method.

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□ ImageProcessor Strategy Pattern

Lab2

```
public class PeriodicElementFinder {
   private IPeriodicElementFinder finder = null;
   public void find(List<PeriodicElement> list) {
      finder.find(list);
   }
}
```

Lab2

```java
public class NumberFinder implements
IPeriodicElementFinder {
  @Override
  public void find(List<PeriodicElement> list){
    System.out.print("Please enter [number] of
PeriodicElement: ");
    int number = UserInput.getIntegerBetween(1, 118);
    // your code to find PE by number
    // your code to print the found PE
  }
}
```

Lab2

- The MainTest class finds PE using different finders.

```java
public class MainTest {
  static IPeriodicElementFinder[] finders = … // 6 methods
  public static void main(String[] args) {
   List<PeriodicElement> list =
PeriodicElementImporter.loadCSV("PeriodicElements.csv");
   for (IPeriodicElementFinder finder : finders) {
     PeriodicElementFinder f =
            new PeriodicElementFinder(finder);
     f.finder(list);
   }
  }
}
```

Submit to e-learning

- Add your code (e.g., additional method, class, routine, etc) in the Lab2 assignment.

- Submit **Java23-2-HW2-YourID-YourName.zip** to e-learning **due by 9/25**.