Iterator and Package

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0.1 Question

- What is the difference between Enumeration and Iterator?

- If you are trying to name a package of a group of files that are in a directory called ?videos" in another directory called ?media? on a website called ?google.com?, what should you name the package (using the most common method for naming packages)?

- What is the point of Iterator having a remove() function?

- What are the differences between the "package-by-feature" and "package-by-layer" approaches when implementing packages. In what sort of scenarios might one be better than the other, and vice versa?

0.2 Answer

- The functionality of Enumeration and the Iterator are same. You can get remove() from Iterator to remove an element, while while Enumeration does not have remove() method. Using Enumeration you can only traverse and fetch the objects, where as using Iterator we can also add and remove the objects. So Iterator can be useful if you want to manipulate the list and Enumeration is for read-only access.

- com.google.media.videos

- Iterator uses remove() to remove an object from a soruce collection safely. This is to avoid the ConcurrentModifiedException(collection modified with iterator against it).

- The "package-by-feature" vs. "package-by-layer" implementations differ in one fundamental way: Package-by-feature uses packages to reflect the feature set. It places all items related to a single feature (and only that feature) into a single directory/package. This results in packages with high cohesion and high modularity,

and with minimal coupling between packages. Items that work closely together are placed next to each other. They aren't spread out all over the application. Package-by-Layer on the other hand reflects separations by different frameworks and layers. Instead of separating files by it's type of application, it does so by separating them in regards to the "layer" those files belong to. For comparison, here are a few examples that contrast their differences:

Package-by-Layer:

- com.example.model.feature1 - com.example.model.feature2 - com.example.ui.feature1 - com.example.ui.feature2

Package-by-Feature - com.example.feature1.model - com.example.feature1.ui - com.example.feature2.mod - com.example.feature2.ui