DESIGN PATTERNS - CPIT252

LAB_7

Shehab

SOLUTION

```java
import ...

public class ImageElementsFactory {

    private Map<String, ImageElement> flyweights = new HashMap<String, ImageElement>();

    public ImageElement getFlyweight(String n) {
        // return a flyweight if it already exists, otherwise, put it in the map.
        if (flyweights.containsKey(n))
            return flyweights.get(n);
        flyweights.put(n, new ImageElement(n));
        return flyweights.get(n);
    }

    public int numberOfFlyweights() {
        return flyweights.size();
    }

}
```

If the image doesn't exist in the **hashmap** it'll create a link for it, else return the image.

```
9980 Flower.png: ImageElement@4501b7af
9981 Cloud.png: ImageElement@523884b2
9982 Tree.png: ImageElement@61832929
9983 Palm.png: ImageElement@5b275dab
9984 Palm.png: ImageElement@5b275dab
9985 Tree.png: ImageElement@61832929
9986 Cloud.png: ImageElement@523884b2
9987 Flower.png: ImageElement@4501b7af
9988 Tree.png: ImageElement@61832929
9989 Cloud.png: ImageElement@523884b2
9990 Cloud.png: ImageElement@523884b2
9991 Tree.png: ImageElement@61832929
9992 Flower.png: ImageElement@4501b7af
9993 Flower.png: ImageElement@4501b7af
9994 Flower.png: ImageElement@4501b7af
9995 Palm.png: ImageElement@5b275dab
9996 Cloud.png: ImageElement@523884b2
9997 Tree.png: ImageElement@61832929
9998 Palm.png: ImageElement@5b275dab
9999 Tree.png: ImageElement@61832929
Number of flyweights: 4
```