Exercise: Toilet

In a public toilet, there is a number of cabins and therefore more people may use this public toilet at the same time. If all cabins are occupied the person of cause have to wait until another one leaves a cabin.

Occasionally a cleaning person is going to clean the toilet and the company policy is to do this this only when the building is empty, i.e. no people in any of the cabins.

A public toilet is given as the interface:

```
public interface PublicToilet
{
   void stepIntoCabin();
   void leaveCabin();
   void startCleaning();
   void endCleaning();
}
```

Threads simulate persons using the public toilet.

Step 1

Implement as a monitor a class `ToiletBuilding` implementing interface `PublicToilet`.

Step 2

Implement a Runnable class `Person`, representing a person using the public toilet.

Step 3

Implement a Runnable class `CleaningPerson`, representing a cleaning person cleaning the public toilet.

Step 4

Implement a class with a main method to create a public toilet with 5 cabins and simulate using a large number of people using the toilet and one cleaning person cleaning the toilet. Insert proper print outs in the monitor class (Include thread names to inspect the output).