The Crossing task is an exercise in using the executor framework. The case has very little in common with the real world.

**Calling accross the street**

In this exercise we will practice with executors and futures. The task in this assignment is to build a simple traffic control system for a crossing. To generate safe traffic, your must create Callables that cycle a traffic light through green, but of course only if it is allowed.

The code for the TrafficLight is partly given as lass. ([SimpleTrafficLight.java](#)). There is also an api in the package `crossing.gui`. The complete gui can be implemented using this api. Have a look in crossing.CrossingMain.java as a how to.

We will construct this application step by step.

1. Define the crossing gui in netbeans as shown on the website.
2. Download the given project from the website and study its content.
3. The application is CrossingMain, which instantiates a CrossingModel with a 4 corners and per corner as many traffic lights per corner as specified on the commandline.
4. In the application, each TrafficLight has a button, to indicate that a vehicle is waiting for that TrafficLight. These requests are made known to the TrafficDispatcher using the `void addRequest(int cornerNr, int laneNr);` method.

   Complete the TrafficDispatcher, which takes care of creating PassingTraffic tasks (Callables). These PassingTraffic Callables return self as the value object. One of the values is the time of creation of the callable. This allows you to simply monitor the duration of the waiting time.

   Each button in the crossing gui has an associated label, This label show the number of requests (R) and the number of green cycles. Th button flashes as long as the number of requests is above the number of goes.

Test the application thoroughly and show the working application to your teacher.