**Car repair shop simulation**

You are supposed to partially simulate the activity of a car repair shop. The repair shop can accommodate up to 20 cars in the workshop and in the yard. Every car can be in one of the following states: waiting for diagnose, diagnosed, waiting for parts, in repair and ready. When a car is ready, the owner is called to pick the car. He/she has to pay for the cost of the repair and then, the car leaves the shop. There can be no more than 12 cars in repair (i.e. in the workshop) at any time.

As you know, a car may be identified by its license plate. The car also has an owner who has a phone number.

When a car is brought to the workshop, it is admitted if there is an available place for it. Then it passes through the states enumerated above (waiting for parts may be skipped if there are parts available).

The simulation takes place in 1 hour steps.

You are supposed to simulate the activity of up this car repair, and provide a view of this.

At every check-in point there will be a queue of cars waiting to enter (note that the queue may be empty) .

All the relevant data (initial configuration, schedule, history data) should be stored in flat files.

The application should allow for saving the state and restoring it (serialization). A dashboard view should show the activity involved in this simulation. This should be a GUI which you should design.

Complete this brief specification with the elements needed (as you see this is not described in detail) and develop a project to simulate the airport check-in activity.

Use the miniproject template for the documentation.