

Bicycle Repair Shop

The following represents a system in use in a bicycle repair shop. When a customer brings in their bike to be repaired, the receptionist records their name and contact number. The serial number of the bike (this is unique for each bike) and the model of the bike are recorded by the shop assistant. The bike is given an initial status of 'R', for 'repair'. A repair number is generated and given to the customer, for reference.

When a new model of bike is manufactured, suppliers send each bicycle shop a list of the model number and the model name. They also get a list of parts that are used in each bike model. Parts can sometimes contain other parts – for example, the wheel will contain spokes, but a spoke can be provided separately. The owner records new models, new suppliers, new parts and which parts go in which models.

In the workshop, a mechanic, who is ready to do a repair, looks up the database to see which bikes are awaiting repair. The mechanic picks a bike, looks at the description of the repair required and then carries out one or more tasks on that bike. Some of the tasks may require replacement or additional parts, and some may be labour, such as servicing the bike. When the mechanic has finished, he / she records any parts that have been replaced in the bike, and the number of hours labour that were spent on the bike. The status of the bike is then changed to 'C' for 'collect'.

The customer has been given a repair number, and may look up the shop's web site to track the repair. To check to see if the bike is repaired the customer can type in the repair number. The customer will then receive a message saying that either the bike is awaiting repair, awaiting collection, or doesn't exist.

In addition to that, the receptionist rings each customer who has a bike in the repair shop awaiting collection. When the bike is collected and paid for, the receptionist changes the status of the bike to 'F' for 'finished'.