

Coursework 1a scenario: Police traffic database

Problem description

UK traffic police keep records of people and vehicles that have come to their attention, with information as shown below. They also keep records of reports that have been made, and a list of possible offences together with penalties for those offences (see <https://www.gov.uk/browse/driving/penalty-points-fines-bans> for realistic information on this to help give you inspiration).

Vehicles

Vehicle ID	The registration number / number plate of the vehicle
Make	The make of the vehicle (e.g. Vauxhall)
Model	The model of the vehicle (e.g. Astra)
Colour	The colour of the vehicle (e.g. grey)
Owner	The registered owner of the vehicle

People

Name	The person's name
Address	The person's address (all in a single line)
DOB	The person's date of birth
License Number	The person's driving license number (16 alphanumeric characters)
Penalty points	The number of points on the person's license (0-12)
Fines	Records of fines issued to the person (including the offence, the amount of the fine and the number of penalty points awarded)

Offences

Offence ID	Each offence has a numeric identifier
Description	A text description of the offence (e.g. "Failing to stop at a red light")
Maximum Fine	The possible maximum amount of the fine for this offence (both in terms of money and penalty points)

Reports

Report ID	Each report has a numeric identifier
Time	Time and date of the report
Vehicle	ID (the registration number / number plate of the vehicle)
Driver License	The license number of the driver
Offence	The offense committed (if any – it is possible to give a warning when no offence is registered)
Statement	A general text report about the incident being filed
Officer ID	The number of the reporting police officer