

ASSIGNMENT 1 – COMP518

Question One

1. Find the drivers who have participated in at least one accident where the amount of the damage is at least 1000. Show the ids of those drivers.

Answer :

$\text{Driver} \bowtie (\sigma_{\text{damage amount} \geq 1000}(\text{Report}))$

2. Find the names of drivers, who do not have an accident.

Answer :

$\pi_{\text{name}}(\text{Driver} \bowtie \sigma_{\text{accident number} < 0}(\text{Report}))$

3. Find the drivers who have the same name as some other driver. Show the names of the drivers.

Answer :

$\pi_{\text{name}}(\sigma_{\text{name}=\text{name}} \wedge \sigma_{\text{Driver ID} \neq \text{ID}} (\text{Driver} \times \rho_{\text{D.name}}(\text{Driver})))$

4. Find the ids of the cars that participated in all accidents located in 'Liverpool'.

Answer :

$\pi_{\text{DriverID}}(\text{Report} \bowtie (\sigma_{\text{location} = \text{Liverpool}}(\text{Accident})))$

Question Two

TestRecord(TestID, Tester NI number, Testee NI number, M-Procedure, M-lab, Date, Result)

Tester(Staff number, Office address, Email, NI number, Home Address)

Testee(NI Number, Home address, Gender, Age, Allergic condition)

MLab(Lab name, Address, Phone number, capability)

MProcedure(ID number, Name, No of Medicines, Times performed, Dosage)

Medicine(Medicine ID, Medicine Name, Active Ingredient, Type)

