

Task 1: Relational Database Queries – Relational Algebra

(a) List the part code, part description for all parts supplied by the vendor named "Supercheap Auto".

Answer:

$R1 = \sigma \text{ vendor_name} = \text{"Supercheap Auto"} (\text{VENDOR})$

$R2 = \text{PART} \bowtie R1$

$R = \pi \text{ part_code, part_description} (R2)$

(b) List the part code and part description for all parts which have not been used in any service.

Answer:

(c) List the customer's name, phone number and vehicle registration number (rego) for all owners of vehicles who had their vehicle serviced on 22/02/2024 and where the service kilometres were greater than 80,000 km.

Answer: