

Task 1 - Normalisation

TRUCK TRAILER PURPOSE REPORT

UNF

PURPOSE(purpose_no, purpose_desc, (combo_code, truck_vin, truck_rego, trail_code, trail_manufacturer, trail_model, trail_class, trail_load_cap, trail_dimension))

1NF

PURPOSE(purpose_no, purpose_desc)

TRUCK_TRAIL_COMBO(purpose_no, combo_code, truck_vin, truck_rego, trail_code, trail_manufacturer, trail_model, trail_class, trail_load_cap, trail_dimension)

Partial Dependencies:

No partial dependencies present

2NF

PURPOSE(purpose_no, purpose_desc)

TRUCK_TRAIL_COMBO(purpose_no, combo_code, truck_vin, truck_rego, trail_code, trail_manufacturer, trail_model, trail_class, trail_load_cap, trail_dimension)

Transitive Dependencies:

truck_vin -> truck_rego

trail_code -> trail_manufacturer, trail_model, trail_class, trail_load_cap, trail_dimension

3NF

PURPOSE(purpose_no, purpose_desc)

TRUCK_TRAIL_COMBO(purpose_no, combo_code, truck_vin, trail_code)

TRUCK(truck_vin, truck_rego)

TRAILER(trail_code, trail_manufacturer, trail_model, trail_class, trail_load_cap, trail_dimension)

Full Dependencies:

purpose_no -> purpose_desc

purpose_no, combo_code -> truck_vin, trail_code

truck_vin -> truck_rego

trail_code -> trail_manufacturer, trail_model, trail_class, trail_load_cap, trail_dimension

MONASH HAULERS JOB REPORT:

UNF

JOB(job_no, quote_no, quote_prepared, purpose_no, purpose_desc, quote_days_req, quote_cost, combo_code, driver_no, driver_name, mechanic_no, mechanic_name, job_pickup_dt, job_intended_dropoff_dt, job_actual_dropoff_dt, job_cost, job_paid_date)

1NF

JOB(job_no, quote_no, quote_prepared, purpose_no, purpose_desc, quote_days_req, quote_cost, combo_code, driver_no, driver_name, mechanic_no, mechanic_name, job_pickup_dt, job_intended_dropoff_dt, job_actual_dropoff_dt, job_cost, job_paid_date)

Partial Dependencies:

No partial dependencies present

2NF

JOB(job_no, quote_no, quote_prepared, purpose_no, purpose_desc, quote_days_req, quote_cost, combo_code, driver_no, driver_name, mechanic_no, mechanic_name, job_pickup_dt, job_intended_dropoff_dt, job_actual_dropoff_dt, job_cost, job_paid_date)

Transitive Dependencies:

purpose_no -> purpose_desc

driver_no -> driver_name

mechanic_no -> mechanic_name

quote_no -> quote_prepared, quote_days_req, quote_cost

3NF

JOB(job_no, quote_no, purpose_no, combo_code, driver_no, mechanic_no, job_pickup_dt, job_intended_drt, job_actual_drop_dt, job_cost, job_paid_date)

QUOTE(quote_no, quote_prepared, quote_days_req, quote_cost)

PURPOSE(purpose_no, purpose_desc)

DRIVER(driver_no, driver_name)

MECHANIC(mechanic_no, mechanic_name)

Full Dependencies:

job_no -> quote_no, purpose_no, combo_code, driver_no, mechanic_no, job_pickup_dt, job_intended_drt, job_actual_drop_dt, job_cost, job_paid_date

quote_no -> quote_prepared, quote_days_req, quote_cost

purpose_no -> purpose_desc

driver_no -> driver_name

mechanic_no -> mechanic_name

COLLECTED 3NF RELATIONS:

1. PURPOSE(purpose_no, purpose_desc)
2. TRUCK_TRAIL_COMBO(purpose_no, combo_code, truck_vin, trail_code)
3. TRUCK(truck_vin, truck_rego)
4. TRAILER(trail_code, trail_manufacturer, trail_model, trail_class, trail_load_cap, trail_dimension)
5. JOB(job_no, quote_no, purpose_no, combo_code, driver_no, mechanic_no, job_pickup_dt, job_intended_drt, job_actual_drop_dt, job_cost, job_paid_date)
6. QUOTE(quote_no, quote_prepared, quote_days_req, quote_cost)
7. PURPOSE(purpose_no, purpose_desc)
8. DRIVER(driver_no, driver_name)
9. MECHANIC(mechanic_no, mechanic_name)

ATTRIBUTE SYNTHESIS:

Combined DRIVER and MECHANIC into EMPLOYEE(emp_no, emp_name) since they are identical relations.

1 & 7.

1. PURPOSE(purpose_no, purpose_desc)
2. TRUCK_TRAIL_COMBO(purpose_no, combo_code, truck_vin, trail_code)
3. TRUCK(truck_vin, truck_rego)
4. TRAILER(trail_code, trail_manufacturer, trail_model, trail_class, trail_load_cap, trail_dimension)
5. JOB(job_no, quote_no, purpose_no, combo_code, driver_no, mechanic_no, job_pickup_dt, job_intended_drt, job_actual_drop_dt, job_cost, job_paid_date)
6. QUOTE(quote_no, quote_prepared, quote_days_req, quote_cost)
7. PURPOSE(purpose_no, purpose_desc)
8. EMPLOYEE(emp_no, emp_name)