

Group Information

A01-Group016

Harshath Muruganantham

Xavier Younan

Surendran Manokaran

Clean Up Inc Driver Report:

Clean Up Inc Driver report

Driver Number: 12

Licence Number: 123456789

Name Mary Xiue

Date of Birth 11 Apr 1993

Taxfile Number 987645132

AUTHORISED TRUCKS

VIN	Rego Number	Make	Model	Year
1HSJRSCR9EJ419702	TRK123456	Hino	300 816 Auto	2020
YV5F4B3D8WD563753	TRK278901	Iveco	Acco	2022

UNF

DRIVER (driver_number, driver_licence_number, drive_name, driver_dob, driver_tfn, (truck_vin, truck_regoNumber, truck_make, truck_model, truck_year))

1NF

DRIVER (driver_number, driver_licence_number, drive_name, driver_dob, driver_tfn)

CK: (driver_licence_number) (driver_tfn) (driver_licence_number)

TRUCK (driver_number, truck_vin, truck_regoNumber, truck_make, truck_model, truck_year)

CK: (driver_number, truck_vin)

Partial Dependencies:

TRUCK:

truck_vin -> truck_regoNumber, truck_make, truck_model, truck_year

2NF

DRIVER (driver_number, driver_licence_number, drive_name, driver_dob, driver_tfn)

TRUCK_DRIVER (driver_number, truck_vin)

TRUCK (truck_vin, truck_regoNumber, truck_make, truck_model, truck_year)

Transitive Dependencies:

No Transitive dependencies.

3NF

DRIVER (driver_number, driver_licence_number, drive_name, driver_dob, driver_tfn)

TRUCK_DRIVER (driver_number, truck_vin)

TRUCK (truck_vin, truck_regoNumber, truck_make, truck_model, truck_year)

Full Dependencies:

driver_number -> driver_licence_number, drive_name, driver_dob, driver_tfn

truck_vin -> truck_regoNumber, truck_make, truck_model, truck_year

Clean Up Inc Collection Report

Clean Up Inc Collection Report

Contract Number: 123
Waste Type ID: GW
Waste Type Description: Green Waste
Collection Frequency: Fortnightly

Date of collection: 15th March 2023
Driver No: 12
Driver Contact Number: 0426123456
Collection Truck VIN: 1HSJRSCR9EJ419702
Collections Made:

Bin RFID	Collected Kgs	Overweight
B724E7D504B19A9B		Y
294CEEFD3435F15D	56 N	•
56EB9899AA5EE944	45 N	
B5E79C8D3DD0394E	60 N	
C19D7652AB78E157	54 N	
3DA18BA44CC14795	67 N	
4DBAE5111FA74C42	32 N	

... partial and representative data shown ...

Date of collection: 29th March 2023
Driver No: 8
Driver Contact Number: 0123456789
Collection Truck VIN: YV5F4B3D8WD563753
Collections Made:

Bin RFID	Collected Kgs	Overweight
B724E7D504B19A9B	65 N	
56EB9899AA5EE944		Y
B5E79C8D3DD0394E	69 N	
C19D7652AB78E157	45 N	
3DA18BA44CC14795	42 N	
4DBAE5111FA74C42	56 N	

... partial and representative data shown ...

UNF

COLLECTION_REPORT (contract_number, waste_id, waste_description, contract_collection_frequency (collection_date, driver_number, driver_contact_number, truck_vin, (bin_RFID, collection_weight, collection_overweight))

1NF

CONTRACT(contract_number, waste_id, waste_description, contract_collection_frequency)

CK: (contract_number)

COLLECTION (contract_number, collection_date, driver_number, driver_contact_number, truck_vin)

CK: (collection_date), (collection_date, contract_number)

COLLECTION_MADE (contract_number, collection_date, bin_RFID, collection_weight, collection_overweight)

CK: (contract_number, collection_date, bin_RFID)

Partial Dependencies:

No partial dependencies

2NF

CONTRACT(contract_number, waste_id, waste_description, contract_collection_frequency)

COLLECTIONS (contract_number, collection_date, driver_number, driver_contact_number, truck_vin)

COLLECTION_MADE (contract_number, collection_date, bin_RFID, collection_weight, collection_overweight)

Transitive Dependencies:

Driver_number -> driver_contact_number

waste_id -> waste_description

3NF

CONTRACT(contract_number, waste_id, contract_collection_frequency)

WASTE (waste_id, waste_description)

COLLECTIONS (contract_number, collection_date, driver_number, truck_vin)

DRIVER (driver_number, driver_contact_number)

COLLECTION_MADE (contract_number, collection_date, bin_RFID, collection_weight, collection_overweight)

Full Dependencies:

contract_number -> waste_id, contract_collection_frequency

waste_id -> waste_description

contract_number, collection_date -> driver_number, truck_vin

driver_number -> driver_contact_number

contract_number, collection_date, bin_RFID -> collection_weight, collection_overweight

Attribute Synthesis:

Multiple Form Synthesis

CONTRACT (contract_number, waste_id, contract_collection_frequency)

WASTE (waste_id, waste_description)

COLLECTION_ROUTE(contract_number, collection_date, driver_number, truck_vin)

COLLECTION_MADE (contract_number, collection_date, bin_RFID, collection_weight, collection_overweight)

DRIVER (driver_number, driver_contact_number, driver_licence_number, drive_name, driver_dob, driver_tfn)

TRUCK_DRIVER (driver_number, truck_vin)

TRUCK (truck_vin, truck_regoNumber, truck_make, truck_model, truck_year)

Existing Diagram Synthesis

CONTRACT_WASTE_TYPE (contract_id, waste_type_id, cwt_collection_frequency, cwt_collection_cost)

WASTE_TYPE (waste_type_id, waste_type_description)

COLLECTION_ROUTE (contract_id, collection_date, driver_number, truck_vin)

COLLECTION_MADE (contract_id, collection_date, bin_RFID, collection_weight, collection_overweight)

DRIVER (driver_number, driver_contact_number, driver_licence_number, drive_name, driver_dob, driver_tfn)

TRUCK_DRIVER (driver_number, truck_vin)

TRUCK (truck_vin, truck_regoNumber, truck_make, truck_model, truck_year)