/\* Create each table to hold source data \*/

DROP TABLE IF EXISTS RIM.FMP;

CREATE TABLE RIM.FMP (

"Date" date,

TPMIS\_No int,

Car\_No int,

FMP\_No int,

Driver\_Report varchar(20000),

Cause\_Of\_Incident varchar(20000),

PWM int,

Full\_Cancellations int,

Short\_Cancellations int,

Trains\_Delayed int,

Status varchar,

Incidentcode varchar,

System\_Code varchar,

Component\_Code varchar,

Status\_Name varchar,

Sort\_No varchar,

Car\_Type\_Name varchar,

Time timestamp,

Minutes\_Train\_Delayed varchar,

Hill\_Bay varchar,

FMPUnitID int,

System\_Description varchar,

IncidentName varchar,

TPMIS\_NOT\_FMP\_accept varchar,

Fault\_Cat varchar,

Minutes\_Canc varchar,

Stored varchar,

Expr1 int,

NFF varchar,

Repeat varchar,

"Group" varchar);

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report;

CREATE TABLE RIM.INF\_PWM\_Report (

"Date" date,

System\_Desc varchar,

Subsystem\_Desc varchar,

Incident\_No int,

Incident\_Desc varchar(20000),

Signal\_Fault\_No int,

Train\_Line varchar,

Station varchar,

Location varchar,

Resp\_Desc varchar,

Cause\_Code int,

Total\_PWM\_Actual int);

DROP TABLE IF EXISTS RIM.Performance\_Data\_Report;

CREATE TABLE RIM.Performance\_Data\_Report (

"Date" date,

TDN varchar,

Line varchar,

Arr\_Mins\_Late int,

Arr\_Mins\_Early int,

Dep\_Mins\_Late int,

Dep\_Mins\_Early int,

On\_Time int,

AAmex varchar,

pwm decimal(10,2),

time\_band\_code varchar,

direction varchar,

A\_bypass\_city\_loop int,

P\_Bypass\_City\_Loop int,

A\_bypass\_westona\_loop int,

P\_Bypass\_Westona\_Loop int,

PlannedDate date,

Planned\_TDN varchar,

Master\_TDN varchar,

PLineID varchar,

PAmex varchar

);

DROP TABLE IF EXISTS RIM.PRS\_Incidents;

CREATE TABLE RIM.PRS\_Incidents (

Incident\_No int,

TDN varchar,

Line varchar,

Line\_Description varchar,

Incident\_Date date,

Location\_From varchar,

Location\_To varchar,

Band varchar,

Band\_Description varchar,

Responsibility varchar,

Resp\_Desc varchar,

CancelCause varchar,

Cancel\_Desc varchar,

Reasons varchar(20000));

DROP TABLE IF EXISTS RIM.Signalling\_Data;

CREATE TABLE RIM.Signalling\_Data (

Date date,

Fault\_No int,

Incident\_No int,

L1\_System varchar,

L2\_Sub\_System varchar,

L3\_Sub\_System varchar,

L4\_Part\_List varchar,

Locn\_Code varchar,

Locn\_Desc varchar,

Maintenance\_Section varchar,

Resp\_Code int,

Resp\_Desc varchar,

SMT\_D varchar,

Section\_No int,

Signalling\_Department varchar,

Signalling\_Depot varchar,

Signalling\_Group varchar,

System\_Code int,

System\_Desc varchar,

System\_No int,

Time\_Avail timestamp,

Time\_OK timestamp,

Time\_OS timestamp,

Time\_Rep timestamp,

Train\_Line varchar,

Equip\_No varchar,

Equip\_Desc varchar,

Fault\_Officer\_D varchar,

Reported\_Fault varchar(20000),

SMT varchar,

Cause\_Code int,

Cause\_Desc varchar,

Action\_Taken varchar(20000),

Sect\_No int,

Total\_Incident\_Cnt int,

PWM\_Incident\_Cnt int,

Total\_PWM\_Actual int);

DROP TABLE IF EXISTS RIM.Recategorised;

CREATE TABLE RIM.Recategorised (

Incident\_No int,

TDN varchar,

Line varchar,

Line\_Desc varchar,

Incident\_Date date,

Location\_From varchar,

Location\_To varchar,

Time\_Band varchar,

Time\_Band\_Desc varchar,

Resp varchar,

Resp\_Desc varchar,

CancelCause varchar,

Cancel\_Desc varchar,

Reasons varchar(20000),

Recat\_Resp varchar,

Recategorised varchar);

DROP TABLE IF EXISTS RIM.Station\_Coding;

CREATE TABLE RIM.Station\_Coding (

Acronym varchar,

Name varchar);

/\* Copy data from files located within s3 \*/

COPY RIM.FMP FROM 's3://bonobotree/RIM/Jul16/FMP 20160701 20160731.csv'

credentials ‘aws\_access\_key\_id=apple;aws\_secret\_access\_key=crumble’

DELIMITER ','

CSV

EMPTYASNULL

IGNOREHEADER 1

DATEFORMAT AS 'DD/MM/YYYY'

TIMEFORMAT AS 'HH:MI'

MAXERROR 10;

COPY RIM.INF\_PWM\_Report FROM 's3://bonobotree/RIM/Jul16/INF PWM Report 20160701 20160731.csv'

credentials ‘aws\_access\_key\_id=apple;aws\_secret\_access\_key=crumble’

DELIMITER ','

CSV

EMPTYASNULL

IGNOREHEADER 1

DATEFORMAT AS 'DD/MM/YYYY'

MAXERROR 0

ACCEPTINVCHARS;

COPY RIM.Performance\_Data\_Report FROM 's3://bonobotree/RIM/Jul16/Performance Data Report - Revised 20160701 20160731.csv'

credentials ‘aws\_access\_key\_id=apple;aws\_secret\_access\_key=crumble’

DELIMITER ','

CSV

EMPTYASNULL

IGNOREBLANKLINES

IGNOREHEADER 1

DATEFORMAT AS 'DD-MON-YY'

MAXERROR 0;

COPY RIM.PRS\_Incidents FROM 's3://bonobotree/RIM/Jul16/Incident Data report 20160701 20160731.csv'

credentials ‘aws\_access\_key\_id=apple;aws\_secret\_access\_key=crumble’

DELIMITER ','

CSV

EMPTYASNULL

IGNOREBLANKLINES

IGNOREHEADER 1

DATEFORMAT AS 'DD/MM/YYYY'

MAXERROR 0;

COPY RIM.Signalling\_Data FROM 's3://bonobotree/RIM/Jul16/Signalling Data 20160701 20160731.csv'

credentials ‘aws\_access\_key\_id=apple;aws\_secret\_access\_key=crumble’

DELIMITER ','

CSV

EMPTYASNULL

IGNOREBLANKLINES

IGNOREHEADER 1

DATEFORMAT AS 'DD/MM/YYYY'

TIMEFORMAT AS 'DD/MM/YYYY HH24:MI'

MAXERROR 0

ACCEPTINVCHARS;

COPY RIM.Recategorised FROM 's3://bonobotree/RIM/Jul16/Incident Data recategorised 20160701 20160731.csv'

credentials ‘aws\_access\_key\_id=apple;aws\_secret\_access\_key=crumble’

DELIMITER ','

CSV

IGNOREHEADER 1

DATEFORMAT AS 'DD/MM/YYYY'

ACCEPTINVCHARS

IGNOREBLANKLINES;

COPY RIM.Station\_Coding FROM 's3://bonobotree/RIM/Station Abbreviations.csv'

credentials ‘aws\_access\_key\_id=apple;aws\_secret\_access\_key=crumble’

DELIMITER ','

CSV

EMPTYASNULL;

/\* Data joining \*/

/\* Step 1: remove from INF\_PWM\_Report

1) Create new temp table Left join INF\_PWM\_Report with Signalling\_Data ON Incident\_Number

2) Where there are matches, REMOVE from INF\_PWM\_Report \*/

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report\_Stg1;

SELECT INF\_PWM\_Report.Date,INF\_PWM\_Report.Incident\_No,RIM.INF\_PWM\_Report.System\_Desc,RIM.INF\_PWM\_Report.Subsystem\_Desc,INF\_PWM\_Report.Incident\_Desc,INF\_PWM\_Report.Signal\_Fault\_No,INF\_PWM\_Report.Train\_Line,INF\_PWM\_Report.Station,INF\_PWM\_Report.Location,INF\_PWM\_Report.Resp\_Desc,INF\_PWM\_Report.Cause\_Code,INF\_PWM\_Report.Total\_PWM\_Actual

INTO RIM.INF\_PWM\_Report\_Stg1

FROM RIM.INF\_PWM\_Report

LEFT JOIN RIM.Signalling\_Data ON RIM.INF\_PWM\_Report.Incident\_No = RIM.Signalling\_Data.Incident\_No

WHERE RIM.Signalling\_Data.Incident\_No IS NULL;

/\* Step 2: Don't change Signalling\_Data because duplicates removed from INF\_PWM\_Report instead of Signalling\_Data \*/

/\* Step 3: Create 3 new tables

1) Table 1 will contain just Signal incidents

2) Table 2 will contain just Trackworks (RESP = 47) incidents

3) Table 3 will contain just Power (RESP = 29,30,31,32) incidents \*/

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report\_Stg2\_Signal;

SELECT \*

INTO RIM.INF\_PWM\_Report\_Stg2\_Signal

FROM RIM.Signalling\_Data

WHERE Signalling\_Data.Resp\_Code NOT SIMILAR TO '(29|30|31|32|47)';

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report\_Stg2\_Track;

SELECT \*

INTO RIM.INF\_PWM\_Report\_Stg2\_Track

FROM RIM.Signalling\_Data

WHERE Signalling\_Data.Resp\_Code = 47;

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report\_Stg2\_Power;

SELECT \*

INTO RIM.INF\_PWM\_Report\_Stg2\_Power

FROM RIM.Signalling\_Data

WHERE Signalling\_Data.Resp\_Code SIMILAR TO '(29|30|31|32)';

/\* Step 4: Create consolidated table format with new expressions (e.g. Expr1)

1) Generic expressions to Signalling\_Data

1a) Add new columns for Expr1 (default = Asset), Expr2 (default = Infrastructure) and Expr3 (default = Signalling)

2) Generic expressions to Track data

3) Generic expressions to Power data \*/

DROP TABLE IF EXISTS RIM.Consolidated\_Incident\_Cause;

SELECT Date,Incident\_No AS Incident\_Number,CAST(NULL AS varchar(256)) AS Incident\_From,CAST(NULL AS varchar(256)) AS Incident\_To,Train\_Line AS Line,Locn\_Desc AS Location,Equip\_No AS Asset\_ID,CAST('Asset' AS varchar(256)) AS Expr1,CAST('Infrastructure' AS varchar(256)) AS Expr2,CAST('Signals' AS varchar(256)) AS Expr3,L1\_System AS Expr4,L2\_Sub\_System AS Expr5,L3\_Sub\_System AS Expr6,L4\_Part\_List AS Expr7,Reported\_Fault,Action\_Taken

INTO RIM.Consolidated\_Incident\_Cause

FROM RIM.INF\_PWM\_Report\_Stg2\_Signal;

INSERT INTO RIM.Consolidated\_Incident\_Cause (Date,Incident\_Number,Line,Location,Asset\_ID,Expr1,Expr2,Expr3,Expr4,Expr5,Expr6,Expr7,Reported\_Fault,Action\_Taken)

SELECT Date,Incident\_No,Train\_Line,Locn\_Desc,NULL,'Asset','Infrastructure','Track',L4\_Part\_List,NULL,NULL,NULL,Reported\_Fault,Action\_Taken

FROM RIM.INF\_PWM\_Report\_Stg2\_Track;

INSERT INTO RIM.Consolidated\_Incident\_Cause (Date,Incident\_Number,Line,Location,Asset\_ID,Expr1,Expr2,Expr3,Expr4,Expr5,Expr6,Expr7,Reported\_Fault,Action\_Taken)

SELECT Date,Incident\_No,Train\_Line,Locn\_Desc,NULL,'Asset','Infrastructure','Power Supply','Signal Power',NULL,L4\_Part\_List,NULL,Reported\_Fault,Action\_Taken

FROM RIM.INF\_PWM\_Report\_Stg2\_Power;

/\* Step 5: add incidents from INF\_PWM\_Report not detailing in Signalling\_Data into the Consolidated\_Incident\_Cause table

1) Generic expressions to INF\_PWM\_Report\_Stg1 \*/

INSERT INTO RIM.Consolidated\_Incident\_Cause (Date,Incident\_Number,Line,Location,Asset\_ID,Expr1,Expr2,Expr3,Expr4,Expr5,Expr6,Expr7,Reported\_Fault,Action\_Taken)

SELECT Date,Incident\_No,Train\_Line,Location,NULL,'Asset','Infrastructure',System\_Desc,

CASE System\_Desc

WHEN 'Signals' THEN 'Other'

ELSE Subsystem\_Desc END,

NULL,NULL,NULL,Incident\_Desc,NULL

FROM RIM.INF\_PWM\_Report\_Stg1;

/\* Step 6: add incidents from FMP

1) Generic expressions to FMP

Note: if loading old TOPS incident data add '03' to the TPMIS No \*/

INSERT INTO RIM.Consolidated\_Incident\_Cause (Date,Incident\_Number,Line,Location,Asset\_ID,Expr1,Expr2,Expr3,Expr4,Expr5,Expr6,Expr7,Reported\_Fault,Action\_Taken)

SELECT Date,TPMIS\_No,NULL,NULL,Car\_No,'Asset','Rolling Stock',Car\_Type\_Name,System\_Description,Component\_Code,NULL,NULL,Driver\_Report,NULL

FROM RIM.FMP;

/\* Step 7: create new table for Incident Data ONLY if data is derived from TOPS. This is not an issue with PRS

Example code:

SELECT DISTINCT \*

INTO RIM.TOPS\_Incidents\_Unique

FROM RIM.TOPS\_Incidents;

\*/

/\* Step 8: consolidated PRS\_Incidents data with Consolidated\_Incident\_Cause data

1) create PRS\_Incidents\_Stg1 table with general expressions

2) create PRS\_Incidents\_Stg2 only from distinct records in Stg1

3) create PRS\_Incidents\_Stg3\_NotAsset for all records in the PRS incidents that do not have a corresponding record in Consolidated\_Incident\_Cause (asset faults)

4) join PRS\_Incidents\_Stg3\_NotAsset back in to Consolidated\_Incident\_Cause table \*/

DROP TABLE IF EXISTS RIM.PRS\_Incidents\_Stg1;

SELECT Incident\_Date AS Date,Incident\_No AS Incident\_Number,Location\_From AS Incident\_From,Location\_To AS Incident\_To,Line\_Description AS Line,NULL AS Location,NULL AS Asset\_ID,

CASE Responsibility

WHEN 'PRJ' THEN 'Projects'

WHEN 'INF' THEN 'Asset'

WHEN 'TRN' THEN 'Asset'

ELSE 'Operational'

END AS Expr1,

CASE Responsibility

WHEN 'INF' THEN 'Infrastructure'

WHEN 'TRN' THEN 'Rolling Stock'

ELSE Responsibility

END AS Expr2,

CASE Responsibility

WHEN 'INF' THEN Responsibility

WHEN 'TRN' THEN Responsibility

ELSE CancelCause

END AS Expr3,

CASE Responsibility

WHEN 'INF' THEN CancelCause

WHEN 'TRN' THEN CancelCause

ELSE NULL

END AS Expr4,

NULL AS Expr5,NULL AS Expr6,NULL AS Expr7,Reasons AS Reported\_Fault,NULL AS Action\_Taken

INTO RIM.PRS\_Incidents\_Stg1

FROM RIM.PRS\_Incidents;

DROP TABLE IF EXISTS RIM.PRS\_Incidents\_Stg2;

SELECT DISTINCT \*

INTO RIM.PRS\_Incidents\_Stg2

FROM RIM.PRS\_Incidents\_Stg1;

DROP TABLE IF EXISTS RIM.PRS\_Incidents\_Stg3\_NotAsset;

SELECT RIM.PRS\_Incidents\_Stg2.Date,RIM.PRS\_Incidents\_Stg2.Incident\_Number,RIM.PRS\_Incidents\_Stg2.Incident\_From,RIM.PRS\_Incidents\_Stg2.Incident\_To,RIM.PRS\_Incidents\_Stg2.Line,RIM.PRS\_Incidents\_Stg2.Location,RIM.PRS\_Incidents\_Stg2.Asset\_ID,RIM.PRS\_Incidents\_Stg2.Expr1,RIM.PRS\_Incidents\_Stg2.Expr2,RIM.PRS\_Incidents\_Stg2.Expr3,RIM.PRS\_Incidents\_Stg2.Expr4,RIM.PRS\_Incidents\_Stg2.Expr5,RIM.PRS\_Incidents\_Stg2.Expr6,RIM.PRS\_Incidents\_Stg2.Expr7,RIM.PRS\_Incidents\_Stg2.Reported\_Fault,RIM.PRS\_Incidents\_Stg2.Action\_Taken

INTO RIM.PRS\_Incidents\_Stg3\_NotAsset

FROM RIM.PRS\_Incidents\_Stg2

LEFT OUTER JOIN RIM.Consolidated\_Incident\_Cause

ON RIM.PRS\_Incidents\_Stg2.Incident\_Number = RIM.Consolidated\_Incident\_Cause.Incident\_Number

WHERE RIM.Consolidated\_Incident\_Cause.Incident\_Number IS NULL

OR (RIM.Consolidated\_Incident\_Cause.Incident\_Number IS NOT NULL AND RIM.PRS\_Incidents\_Stg2.Expr1 = 'Operational');

INSERT INTO RIM.Consolidated\_Incident\_Cause

SELECT \*

FROM RIM.PRS\_Incidents\_Stg3\_NotAsset;

/\* Step 9: Add TDN data back in to Consolidtated\_Incident\_Cause table

1) Left join PRS\_Incidents (left) back into Consolidated\_Incident\_Cause (right) date by incident number \*/

DROP TABLE IF EXISTS RIM.Consolidated\_Incident\_Cause\_Final;

SELECT DISTINCT RIM.Consolidated\_Incident\_Cause.Date,RIM.PRS\_Incidents.TDN,RIM.Consolidated\_Incident\_Cause.Incident\_Number,RIM.Consolidated\_Incident\_Cause.Incident\_From,RIM.Consolidated\_Incident\_Cause.Incident\_To,RIM.Consolidated\_Incident\_Cause.Line,RIM.Consolidated\_Incident\_Cause.Location,RIM.Consolidated\_Incident\_Cause.Asset\_ID,RIM.Consolidated\_Incident\_Cause.Expr1,RIM.Consolidated\_Incident\_Cause.Expr2,RIM.Consolidated\_Incident\_Cause.Expr3,RIM.Consolidated\_Incident\_Cause.Expr4,RIM.Consolidated\_Incident\_Cause.Expr5,RIM.Consolidated\_Incident\_Cause.Expr6,RIM.Consolidated\_Incident\_Cause.Expr7,RIM.Consolidated\_Incident\_Cause.Reported\_Fault,RIM.Consolidated\_Incident\_Cause.Action\_Taken

INTO RIM.Consolidated\_Incident\_Cause\_Final

FROM RIM.PRS\_Incidents

LEFT JOIN RIM.Consolidated\_Incident\_Cause

ON RIM.PRS\_Incidents.Incident\_No = RIM.Consolidated\_Incident\_Cause.Incident\_Number;

/\* Step 10) join back performance data from Performance\_Data\_Report

1) Create new table for Performance\_Data\_Report that includes a UID column

2) Left join Performance\_Data\_Report\_UID (left) to Consolidated\_Incident\_Cause\_Final (right)

3) Add in KPI\_Factor column to account for duplicate entires (due to TDNs be assigned multiple incidents) this is done by creating new table Consolidated\_Performance\_Incident\_Final table

4) Update Expr codes from PRS to match existing TOPS codes (e.g. PRO update to PJT - Projects)\*/

DROP TABLE IF EXISTS RIM.Performance\_Data\_Report\_UID;

CREATE TABLE RIM.Performance\_Data\_Report\_UID

(UID int IDENTITY(1,1),

ActualDate date,

ActualTDN varchar,

ActualLine varchar,

Arr\_Mins\_Late int,

Arr\_Mins\_Early int,

Dep\_Mins\_Late int,

Dep\_Mins\_Early int,

On\_Time int,

AAmex varchar,

pwm decimal(10,2),

time\_band\_code varchar,

direction varchar,

A\_bypass\_city\_loop int,

P\_Bypass\_City\_Loop int,

A\_bypass\_westona\_loop int,

P\_Bypass\_Westona\_Loop int,

PlannedDate date,

Planned\_TDN varchar,

Master\_TDN varchar,

PLineID varchar,

PAmex varchar);

INSERT INTO RIM.Performance\_Data\_Report\_UID (ActualDate,ActualTDN,ActualLine,Arr\_Mins\_Late,Arr\_Mins\_Early,Dep\_Mins\_Late,Dep\_Mins\_Early,On\_Time,AAmex,pwm,time\_band\_code,direction,A\_bypass\_city\_loop,P\_Bypass\_City\_Loop,A\_bypass\_westona\_loop,P\_Bypass\_Westona\_Loop,PlannedDate,Planned\_TDN,Master\_TDN,PLineID,PAmex)

SELECT Date,TDN,Line,Arr\_Mins\_Late,Arr\_Mins\_Early,Dep\_Mins\_Late,Dep\_Mins\_Early,On\_Time,AAmex,pwm,time\_band\_code,direction,A\_bypass\_city\_loop,P\_Bypass\_City\_Loop,A\_bypass\_westona\_loop,P\_Bypass\_Westona\_Loop,PlannedDate,Planned\_TDN,Master\_TDN,PLineID,PAmex

FROM RIM.Performance\_Data\_Report;

DROP TABLE IF EXISTS RIM.Consolidated\_Performance\_Incident;

SELECT RIM.Performance\_Data\_Report\_UID.UID,RIM.Performance\_Data\_Report\_UID.ActualDate,RIM.Performance\_Data\_Report\_UID.ActualTDN,RIM.Consolidated\_Incident\_Cause\_Final.Line,RIM.Performance\_Data\_Report\_UID.Arr\_Mins\_Late,RIM.Performance\_Data\_Report\_UID.Arr\_Mins\_Early,

RIM.Performance\_Data\_Report\_UID.Dep\_Mins\_Late,RIM.Performance\_Data\_Report\_UID.Dep\_Mins\_Early,RIM.Performance\_Data\_Report\_UID.On\_Time,RIM.Performance\_Data\_Report\_UID.AAmex,RIM.Performance\_Data\_Report\_UID.pwm,RIM.Performance\_Data\_Report\_UID.time\_band\_code,

RIM.Performance\_Data\_Report\_UID.direction,RIM.Performance\_Data\_Report\_UID.A\_bypass\_city\_loop,RIM.Performance\_Data\_Report\_UID.P\_Bypass\_City\_Loop,RIM.Performance\_Data\_Report\_UID.A\_bypass\_westona\_loop,

RIM.Performance\_Data\_Report\_UID.P\_Bypass\_Westona\_Loop,RIM.Performance\_Data\_Report\_UID.PlannedDate,RIM.Performance\_Data\_Report\_UID.Planned\_TDN,RIM.Performance\_Data\_Report\_UID.Master\_TDN,RIM.Performance\_Data\_Report\_UID.PLineID,

RIM.Performance\_Data\_Report\_UID.PAmex,RIM.Consolidated\_Incident\_Cause\_Final.Incident\_Number,RIM.Consolidated\_Incident\_Cause\_Final.Incident\_From,RIM.Consolidated\_Incident\_Cause\_Final.Incident\_To,RIM.Consolidated\_Incident\_Cause\_Final.Location,RIM.Consolidated\_Incident\_Cause\_Final.Asset\_ID,

RIM.Consolidated\_Incident\_Cause\_Final.Expr1,RIM.Consolidated\_Incident\_Cause\_Final.Expr2,RIM.Consolidated\_Incident\_Cause\_Final.Expr3,RIM.Consolidated\_Incident\_Cause\_Final.Expr4,

RIM.Consolidated\_Incident\_Cause\_Final.Expr5,RIM.Consolidated\_Incident\_Cause\_Final.Expr6,RIM.Consolidated\_Incident\_Cause\_Final.Expr7,RIM.Consolidated\_Incident\_Cause\_Final.Reported\_Fault,RIM.Consolidated\_Incident\_Cause\_Final.Action\_Taken

INTO RIM.Consolidated\_Performance\_Incident

FROM RIM.Performance\_Data\_Report\_UID

LEFT JOIN RIM.Consolidated\_Incident\_Cause\_Final

ON RIM.Performance\_Data\_Report\_UID.ActualDate = RIM.Consolidated\_Incident\_Cause\_Final.Date

AND RIM.Performance\_Data\_Report\_UID.ActualTDN = RIM.Consolidated\_Incident\_Cause\_Final.TDN;

DROP TABLE IF EXISTS RIM.Temp;

SELECT UID,COUNT(\*) AS Duplicate

INTO RIM.Temp

FROM RIM.Consolidated\_Performance\_Incident

GROUP BY UID;

DROP TABLE IF EXISTS RIM.Temp2;

SELECT UID,SUM(1/CAST(RIM.Temp.Duplicate AS decimal(3,2))) AS KPI\_Factor

INTO RIM.Temp2

FROM RIM.Temp

GROUP BY UID;

DROP TABLE IF EXISTS RIM.Consolidated\_Performance\_Incident\_Final;

SELECT RIM.Consolidated\_Performance\_Incident.UID,RIM.Temp2.KPI\_Factor,RIM.Consolidated\_Performance\_Incident.ActualDate,RIM.Consolidated\_Performance\_Incident.ActualTDN,RIM.Consolidated\_Performance\_Incident.Line,RIM.Consolidated\_Performance\_Incident.Arr\_Mins\_Late,

RIM.Consolidated\_Performance\_Incident.Arr\_Mins\_Early,RIM.Consolidated\_Performance\_Incident.Dep\_Mins\_Late,RIM.Consolidated\_Performance\_Incident.Dep\_Mins\_Early,RIM.Consolidated\_Performance\_Incident.On\_Time,RIM.Consolidated\_Performance\_Incident.AAmex,RIM.Consolidated\_Performance\_Incident.pwm,

RIM.Consolidated\_Performance\_Incident.time\_band\_code,RIM.Consolidated\_Performance\_Incident.direction,RIM.Consolidated\_Performance\_Incident.A\_bypass\_city\_loop,RIM.Consolidated\_Performance\_Incident.P\_Bypass\_City\_Loop,

RIM.Consolidated\_Performance\_Incident.A\_bypass\_westona\_loop,RIM.Consolidated\_Performance\_Incident.P\_Bypass\_Westona\_Loop,RIM.Consolidated\_Performance\_Incident.PlannedDate,RIM.Consolidated\_Performance\_Incident.Planned\_TDN,

RIM.Consolidated\_Performance\_Incident.Master\_TDN,RIM.Consolidated\_Performance\_Incident.PLineID,RIM.Consolidated\_Performance\_Incident.PAmex,RIM.Consolidated\_Performance\_Incident.Incident\_Number,RIM.Consolidated\_Performance\_Incident.Incident\_From,RIM.Consolidated\_Performance\_Incident.Incident\_To,RIM.Consolidated\_Performance\_Incident.Location,

RIM.Consolidated\_Performance\_Incident.Asset\_ID,RIM.Consolidated\_Performance\_Incident.Expr1,RIM.Consolidated\_Performance\_Incident.Expr2,RIM.Consolidated\_Performance\_Incident.Expr3,RIM.Consolidated\_Performance\_Incident.Expr4,

RIM.Consolidated\_Performance\_Incident.Expr5,RIM.Consolidated\_Performance\_Incident.Expr6,RIM.Consolidated\_Performance\_Incident.Expr7,RIM.Consolidated\_Performance\_Incident.Reported\_Fault,RIM.Consolidated\_Performance\_Incident.Action\_Taken

INTO RIM.Consolidated\_Performance\_Incident\_Final

FROM RIM.Consolidated\_Performance\_Incident

LEFT JOIN RIM.Temp2

ON RIM.Consolidated\_Performance\_Incident.UID = RIM.Temp2.UID;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Expr2 =

CASE

WHEN Expr2 = 'EXT' THEN 'EXT - External Factors'

WHEN Expr2 = 'MET' THEN 'MET - Metro Trains'

WHEN Expr2 = 'OPS' THEN 'OPS - Operations'

WHEN Expr2 = 'OTH' THEN 'OTH - Others'

WHEN Expr2 = 'PNL' THEN 'PNL - Pacific National Limited'

WHEN Expr2 = 'PRJ' THEN 'PJT - Projects'

WHEN Expr2 = 'PSI' THEN 'PSI - Passenger Impact'

WHEN Expr2 = 'QBE' THEN 'QBE - Qube Logistics'

WHEN Expr2 = 'VAN' THEN 'VAN - Vandals'

WHEN Expr2 = 'VLP' THEN 'VLP - V/Line Passenger'

ELSE Expr2

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Expr3 =

CASE

WHEN Expr3 = 'AO' THEN 'AO - Stations'

WHEN Expr3 = 'CRP' THEN 'CRP - Craigieburn Rail Project'

WHEN Expr3 = 'DAO' THEN 'DAO - Drivers Allocation Officer'

WHEN Expr3 = 'DER' THEN 'DER - Derailment'

WHEN Expr3 = 'DRC' THEN 'DRC - Dandenong Rail Corridor'

WHEN Expr3 = 'DTRS' THEN 'DTRS - Digital Train Radio System'

WHEN Expr3 = 'FGT' THEN 'FGT - Freight Train'

WHEN Expr3 = 'FT' THEN 'FT - Faulty Train'

WHEN Expr3 = 'GRF' THEN 'GRF - Graffiti'

WHEN Expr3 = 'ILL' THEN 'ILL - ILL Passenger'

WHEN (Expr3 = 'INF' AND Expr2 != 'Infrastructure') THEN 'INF - Infrastructure'

WHEN (Expr3 = 'INF' AND Expr2 = 'Infrastructure') THEN 'Infrastructure Unallocated'

WHEN Expr3 = 'LX' THEN 'LXI - Level crossing Incident'

WHEN Expr3 = 'MET' THEN 'MET - Metro Trains'

WHEN Expr3 = 'MTL' THEN 'MTL - Metrol'

WHEN Expr3 = 'OTH' THEN 'OTH - Others'

WHEN Expr3 = 'PAS' THEN 'PAS - Passenger Train'

WHEN Expr3 = 'PJT' THEN 'PJT - Projects'

WHEN Expr3 = 'PLO' THEN 'PLO - Police Operations'

WHEN Expr3 = 'RRL' THEN 'RRL - Regional Rail Link Project'

WHEN Expr3 = 'SIG' THEN 'SIG - Signaller'

WHEN Expr3 = 'TCF' THEN 'TCF - Track Circuit Failure'

WHEN Expr3 = 'TPS' THEN 'TPS - Trespasser Struck'

WHEN (Expr3 = 'TRN' AND Expr2 != 'Rolling Stock') THEN 'TRN - Fleet Maintenance'

WHEN (Expr3 = 'TRN' AND Expr2 = 'Rolling Stock') THEN 'Rolling Stock Unallocated'

WHEN Expr3 = 'TRS' THEN 'TRS - Trespasser'

WHEN Expr3 = 'TS' THEN 'TS - Train Services'

WHEN Expr3 = 'TTC' THEN 'TTC - Timetable Constraints'

WHEN Expr3 = 'UPG' THEN 'UPG - Unruly Passenger'

WHEN Expr3 = 'VAN' THEN 'VAN - Vandalism'

WHEN Expr3 = 'WHC' THEN 'WHC - Wheelchairs'

WHEN Expr3 = 'WHR' THEN 'WHR - Weather'

WHEN Expr3 = 'WPL' THEN 'WPL - Wait Passenger Load'

ELSE Expr3

END;

/\* Step 11: Create new fields in Consolidated\_Performance\_Incident\_Fina for a range of items

1) Add new columnes for new fields

2) insert values in to new columns using calculations \*/

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Planned\_Cancellation decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Planned\_Short\_Arrival decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Unplanned\_Cancellation decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Unplanned\_Short\_Arrival decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Unplanned\_Short\_Departure decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Unplanned\_Loop\_Bypass decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Unplanned\_Westona\_Bypass decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Unplanned\_Early\_Arrival decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Unplanned\_Late\_Arrival decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Timetabled\_Services decimal(4,2);

ALTER TABLE RIM.Consolidated\_Performance\_Incident\_Final

ADD COLUMN Total\_Unplanned\_Cancellation decimal(4,2);

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Planned\_Cancellation =

CASE

WHEN PAmex LIKE '%C%' THEN KPI\_Factor

ELSE 0

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Planned\_Short\_Arrival =

CASE

WHEN PAmex LIKE '%SA%' THEN KPI\_Factor

ELSE 0

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Unplanned\_Cancellation =

CASE

WHEN AAmex LIKE '%C%' THEN KPI\_Factor

ELSE 0

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Unplanned\_Short\_Arrival =

CASE

WHEN AAmex LIKE '%SA%' THEN KPI\_Factor

ELSE 0

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Unplanned\_Short\_Departure =

CASE

WHEN AAmex LIKE '%SD%' THEN KPI\_Factor

ELSE 0

END;

/\*

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Unplanned\_Loop\_Bypass =

CASE

WHEN AAmex LIKE '%BL%' THEN KPI\_Factor

ELSE 0

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Unplanned\_Westona\_Bypass =

CASE

WHEN AAmex LIKE '%BW%' THEN KPI\_Factor

ELSE 0

END;

\*/

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Unplanned\_Loop\_Bypass =

CASE

WHEN (AAmex LIKE '%BL%' AND AAmex NOT LIKE '%S%') THEN KPI\_Factor

ELSE 0

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Unplanned\_Westona\_Bypass =

CASE

WHEN (AAmex LIKE '%BW%' AND AAmex NOT LIKE '%S%') THEN KPI\_Factor

ELSE 0

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Unplanned\_Early\_Arrival =

CASE

WHEN (On\_Time = 0 AND Arr\_Mins\_Early < 0) THEN KPI\_Factor

ELSE 0

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Unplanned\_Late\_Arrival =

CASE

WHEN On\_Time = 0 THEN KPI\_Factor

ELSE 0

END;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Timetabled\_Services = KPI\_Factor;

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Total\_Unplanned\_Cancellation = (Unplanned\_Cancellation + (Unplanned\_Short\_Arrival \* 0.25) + (Unplanned\_Short\_Departure \* 0.25) + (Unplanned\_Loop\_Bypass \* 0.125) + (Unplanned\_Westona\_Bypass \* 0.125));

UPDATE RIM.Consolidated\_Performance\_Incident\_Final

SET Expr3 =

CASE

WHEN Expr3 LIKE '%Trap%' THEN 'XTrap'

ELSE Expr3

END;

INSERT INTO RIM.Reliability\_Impact\_Model (date,tdn,line\_tdn,line\_incident,pamex,time\_band\_code,direction,arr\_mins\_late,arr\_mins\_early,dep\_mins\_late,dep\_mins\_early,pwm,a\_bypass\_city\_loop,p\_bypass\_city\_loop,a\_bypass\_westona\_loop,p\_bypass\_westona\_loop,

aamex,incident\_number,incident\_from,incident\_to,location,asset\_id,expr1,expr2,expr3,expr4,expr5,expr6,expr7,reported\_fault,action\_taken,kpi\_factor,planned\_cancellation,planned\_short\_arrival,unplanned\_cancellation,unplanned\_short\_arrival,unplanned\_short\_departure,

unplanned\_loop\_bypass,unplanned\_westona\_bypass,unplanned\_early\_arrival,unplanned\_late\_arrival,timetabled\_services,total\_unplanned\_cancellation)

SELECT actualdate,actualtdn,plineid,line,pamex,time\_band\_code,direction,arr\_mins\_late,arr\_mins\_early,dep\_mins\_late,dep\_mins\_early,pwm,a\_bypass\_city\_loop,p\_bypass\_city\_loop,a\_bypass\_westona\_loop,p\_bypass\_westona\_loop,aamex,incident\_number,incident\_from,incident\_to,location,

asset\_id,expr1,expr2,expr3,expr4,expr5,expr6,expr7,reported\_fault,action\_taken,kpi\_factor,planned\_cancellation,planned\_short\_arrival,unplanned\_cancellation,unplanned\_short\_arrival,unplanned\_short\_departure,unplanned\_loop\_bypass,

unplanned\_westona\_bypass,unplanned\_early\_arrival,unplanned\_late\_arrival,timetabled\_services,total\_unplanned\_cancellation

FROM RIM.Consolidated\_Performance\_Incident\_Final;

UPDATE RIM.Reliability\_Impact\_Model SET Incident\_From = RIM.PRS\_Incidents.Location\_From

FROM RIM.PRS\_Incidents

WHERE RIM.Reliability\_Impact\_Model.Incident\_Number = RIM.PRS\_Incidents.Incident\_No;

UPDATE RIM.Reliability\_Impact\_Model SET Incident\_To = RIM.PRS\_Incidents.Location\_To

FROM RIM.PRS\_Incidents

WHERE RIM.Reliability\_Impact\_Model.Incident\_Number = RIM.PRS\_Incidents.Incident\_No;

UPDATE RIM.Reliability\_Impact\_Model

SET Expr4 = RIM.Recategorised.Recategorised

FROM RIM.Recategorised

WHERE RIM.Reliability\_Impact\_Model.Incident\_Number = RIM.Recategorised.Incident\_No

AND Expr1 = 'Operational';

UPDATE RIM.Reliability\_Impact\_Model

SET Incident\_From = RIM.Station\_Coding.Name

FROM RIM.Station\_Coding

WHERE RIM.Reliability\_Impact\_Model.Incident\_From = RIM.Station\_Coding.Acronym;

UPDATE RIM.Reliability\_Impact\_Model

SET Incident\_To = RIM.Station\_Coding.Name

FROM RIM.Station\_Coding

WHERE RIM.Reliability\_Impact\_Model.Incident\_To = RIM.Station\_Coding.Acronym;

/\* Coding to rename/allocate Expr4 accurately for Expr2 = Operational incidents. Renaming of 'Other' categories must occur FIRST before the creation of new Expr3 fields \*/

UPDATE RIM.Reliability\_Impact\_Model

SET Expr2 =

CASE

WHEN Expr2 = 'VAN - Vandals' THEN 'EXT - External Factors'

WHEN Expr2 = 'MET - Metro Trains' THEN 'OPS - Operations'

ELSE Expr2

END;

UPDATE RIM.Reliability\_Impact\_Model

SET Expr4 =

CASE

WHEN (Expr4 = 'Other' AND Expr2 = 'PSI - Passenger Impact') THEN 'Others - Passenger Related (Vomit etc)'

/\* Classification of 'Others' for EXT has not been completed \*/

WHEN (Expr4 = 'Other' AND Expr2 = 'VLP - V/Line Passenger') THEN 'V/Line (Others)'

WHEN (Expr4 = 'Other' AND Expr3 = 'WHR - Weather') THEN 'Others - Weather'

WHEN (Expr4 = 'Other' AND Expr3 = 'LXI - Level crossing Incident') THEN 'Trespasser'

ELSE Expr4

END;

UPDATE RIM.Reliability\_Impact\_Model

SET Expr5 = Expr2 WHERE Expr3 = 'FGT - Freight Train';

UPDATE RIM.Reliability\_Impact\_Model

SET Expr3 =

CASE

WHEN Expr4 = 'Wait Pass Loading' THEN 'Wait Passenger Loading'

WHEN Expr4 = 'Ill Pass' THEN 'Pass Behaviour (ill pass, unruly, pass related)'

WHEN Expr4 = 'Unruly Pass' THEN 'Pass Behaviour (ill pass, unruly, pass related)'

WHEN Expr4 = 'Wheelchair Traffic' THEN 'Pass Behaviour (ill pass, unruly, pass related)'

WHEN Expr4 = 'Event Traffic' THEN 'Pass Behaviour (ill pass, unruly, pass related)'

WHEN Expr4 = 'Others - Passenger Related (Vomit etc)' THEN 'Pass Behaviour (ill pass, unruly, pass related)'

WHEN Expr4 = 'Staff Error' THEN 'Operations'

WHEN Expr4 = 'Metro' THEN 'Operations'

WHEN Expr4 = 'Train Driver Related' THEN 'Operations'

WHEN Expr4 = 'Storm' THEN 'Inclement Weather'

WHEN Expr4 = 'Rain' THEN 'Inclement Weather'

WHEN (Expr4 = 'Others - Weather' AND Expr3 = 'WHR - Weather') THEN 'Inclement Weather'

WHEN Expr4 = 'Graffiti' THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN Expr4 = 'Vandalism' THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN Expr4 = 'Police ops' THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN Expr4 = 'Trespasser' THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN (Expr3 = 'FGT - Freight Train' AND Expr1 = 'Operational') THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN ((Expr3 = 'ELL' OR Expr3 = 'ELE') AND Expr1 = 'Operational') THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN (Expr3 = 'PAS - Passenger Train' AND Expr1 = 'Operational' AND Expr2 != 'VLP - V/Line Passenger') THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN (Expr3 = 'LXI - Level crossing Incident' AND Expr1 = 'Operational') THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN (Expr3 = 'MIS' AND Expr1 = 'Operational') THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN Expr4 = 'Late Departure / Presentation' THEN 'VLP'

WHEN Expr4 = 'Wait Passengers / Interchange / Congestion' THEN 'VLP'

WHEN Expr4 = 'V/Line (Others)' THEN 'VLP'

WHEN (Expr4 = 'Other' AND Expr3 = 'MIS') THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN (Expr4 = 'Other' AND Expr3 = 'MISC') THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN (Expr4 = 'Other' AND Expr3 = 'OTH - Others') THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

WHEN (Expr4 = 'Other' AND Expr3 = 'TCF - Track Circuit Failure') THEN 'Extl Factors (graffiti, vandalism, police ops, trespasser)'

ELSE Expr3

END;

DROP TABLE IF EXISTS RIM.FMP;

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report;

DROP TABLE IF EXISTS RIM.Performance\_Data\_Report;

DROP TABLE IF EXISTS RIM.PRS\_Incidents;

DROP TABLE IF EXISTS RIM.Signalling\_Data;

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report\_Stg1;

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report\_Stg2\_Signal;

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report\_Stg2\_Track;

DROP TABLE IF EXISTS RIM.INF\_PWM\_Report\_Stg2\_Power;

DROP TABLE IF EXISTS RIM.Consolidated\_Incident\_Cause;

DROP TABLE IF EXISTS RIM.PRS\_Incidents\_Stg1;

DROP TABLE IF EXISTS RIM.PRS\_Incidents\_Stg2;

DROP TABLE IF EXISTS RIM.PRS\_Incidents\_Stg3\_NotAsset;

DROP TABLE IF EXISTS RIM.Consolidated\_Incident\_Cause\_Final;

DROP TABLE IF EXISTS RIM.Performance\_Data\_Report\_UID;

DROP TABLE IF EXISTS RIM.Consolidated\_Performance\_Incident;

DROP TABLE IF EXISTS RIM.Temp;

DROP TABLE IF EXISTS RIM.Temp2;

DROP TABLE IF EXISTS RIM.PRS\_Incidents\_Unique;

DROP TABLE IF EXISTS RIM.Consolidated\_Performance\_Incident\_Final;

DROP TABLE IF EXISTS RIM.Recategorised;

DROP TABLE IF EXISTS RIM.Station\_Coding;

/\* END \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \*/