TABLE CREATE STATEMENTS

CREATE TABLE "PERSON"
("Pid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"FirstName" VARCHAR2(10 BYTE) NOT NULL ENABLE, "LastName"
VARCHAR2(10 BYTE) NOT NULL ENABLE, "MiddleName" VARCHAR2(10 BYTE)
NOT NULL ENABLE, "Address" VARCHAR2(100 BYTE) NOT NULL ENABLE,
"Gender" VARCHAR2(7 BYTE) NOT NULL ENABLE, "DATEOFBIRTH" DATE NOT
NULL ENABLE, PRIMARY KEY ("Pid"),
CONSTRAINT "ID_FORMAT" CHECK (REGEXP_LIKE("Pid",'P[0-9][0-9][0-9]'))
ENABLE,

CONSTRAINT "AGE_CHECK" CHECK
("DATEOFBIRTH"<TO_DATE('01-01-2003','DD-MM- YYYY')) ENABLE,

CONSTRAINT "GENDERCHECK" CHECK ("Gender" in ('Male','Female','Other'))
ENABLE)

Pid	FirstName	LastName	MiddleName	Addr...	Gender	DATEOFBIRTH
P001	James	Bond	Ruskin	75...	Male	11-05-93
P002	Tim	Robbins	Tommy	75...	Male	12-11-96
P003	Rob	Adams	Michael	45...	Male	11-09-99
P004	Janice	Joplin	Janis	34...	Female	30-08-00
P005	Kenny	Rogers	Old	se...	Male	11-06-90
P006	Tom	Petty	Alf	sd...	Male	12-11-97
P007	Jerry	Lewis	Tyler	sd...	Male	13-11-91
P008	Jeff	Gordon	Emanuel	zd...	Male	14-09-98
P009	Keerti	Keerti	Keerti	sd...	Female	20-07-96
P010	Sidd	Sekar	Ganesh	ef 22	Male	12-08-97
P011	Dave	Nile	Tom	sa...	Male	20-11-98
P012	Rocky	Daly	Ben	dd...	Male	12-08-97
P013	Dan	Sheffield	North	vs...	Male	12-08-97
P014	Lionel	Messi	Andres	11...	Male	12-08-97
P015	Jimmy	Page	Guit	sd...	Male	12-08-97
P016	Casey	Affleck	Ben	sd...	Other	12-08-97
P017	Sara	Brightman	Christine	dd...	Female	12-08-97
P018	Wendy	Cho	Xan	as...	Female	12-08-97
P019	Yasmin	Ameen	Al	33...	Female	12-08-97
P020	Paula	Kate	Mary	sd...	Female	12-08-97

CREATE TABLE "AClassPassenger"
("APid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

PRIMARY KEY ("APid"),
CONSTRAINT "AClassPassenger_FK1" FOREIGN KEY ("APid")

REFERENCES "SGC190000"."PERSON" ("Pid"))

APid
P005
P004
P003
P006
P007
P009
P010
P011
P013
P017
P015
P019
P014
P016
P018
P020

CREATE TABLE "AStarPassenger"
("ASAPid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"ASEPid" VARCHAR2(4 BYTE) NOT NULL ENABLE, "MembershipDate" DATE
NOT NULL ENABLE,
CONSTRAINT "AStarPassenger_PK" PRIMARY KEY ("ASAPid", "ASEPid"),
FOREIGN KEY ("ASAPid")REFERENCES "SGC190000"."AClassPassenger" ("APid")
ENABLE, FOREIGN KEY ("ASEPid")REFERENCES
"SGC190000"."employee" ("EPid") ENABLE

)

ASAPid	ASEPid	MembershipDate
P003	P003	18-08-15
P004	P004	26-02-19
P016	P016	13-12-10
P007	P007	24-11-18
P010	P010	22-07-18
P014	P014	13-12-10
P018	P018	10-12-10
P020	P020	12-12-10

CREATE TABLE "bus"
("BusNo" NUMBER(*,0) NOT NULL ENABLE,

"No_Seats" NUMBER(*,0) NOT NULL ENABLE, "LicenseNo" NUMBER(*,0) NOT
NULL ENABLE,

PRIMARY KEY ("LicenseNo"),

CONSTRAINT "bus_UK1" UNIQUE ("BusNo"))

BusNo	No_Seats	LicenseNo
1	70	12345
2	70	23456
3	70	34567
4	70	45678
5	60	56789
6	60	67890
7	80	78901
8	80	89012
9	80	90123
10	70	1234

CREATE TABLE "BusDriver"
("BEPid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

PRIMARY KEY ("BEPid"),

FOREIGN KEY ("BEPid")REFERENCES "SGC190000"."employee" ("EPid")
ENABLE)

BEPid
P012
P014
P016
P004
P008
P007
P010

CREATE TABLE "BusStop"
("BsId" NUMBER(*,0) NOT NULL ENABLE,

"BsName" VARCHAR2(20 BYTE) NOT NULL ENABLE, PRIMARY KEY ("BsId")

)

BsId	BsName
1	Coit-Campbell
2	Coit-Frankford
3	Coit-McCallum
4	McCallum-Dickerson
5	Renner-Campbell
6	Renner-Cityline
7	Cityline-Bush
8	Coit-Lyndon

CREATE TABLE "Children"
("CAPid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"CName" VARCHAR2(15 BYTE) NOT NULL ENABLE, "CAge" NUMBER(*,0) NOT NULL ENABLE,

CONSTRAINT "CAGE_CHECK" CHECK ("CAge"<18) ENABLE, CONSTRAINT "Children_PK" PRIMARY KEY ("CAPid","CName"),

FOREIGN KEY ("CAPid")
REFERENCES "SGC190000"."AClassPassenger" ("APid") ENABLE

)
create or replace TRIGGER CHILDREN_LIMIT BEFORE INSERT ON "SGC190000"."Children"

FOR EACH ROW
DECLARE cnt NUMERIC;
BEGIN select count(*) into cnt from "SGC190000"."Children" where "CAPid" = :NEW."CAPid"

group by "CAPid"; IF cnt>4 THEN raise_application_error(-20001, 'Error:Children more than 5');

END IF; END;

CAPid	CName	CAge
P017	Babe	11
P017	Timmy	13
P011	Kiddo	11
P011	Childo	12
P013	Papa	14
P013	Motu	11

CREATE TABLE "Contains_Payment_Info"
("CPISEPid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"CPIPid" VARCHAR2(4 BYTE) NOT NULL ENABLE, FOREIGN KEY ("CPISEPid")

REFERENCES "SGC190000"."staff" ("SEPid") ENABLE, FOREIGN KEY ("CPIPid")

REFERENCES "SGC190000"."PERSON" ("Pid") ENABLE)

CPISEPid	CPIPid
P001	P010
P001	P011
P003	P014
P003	P011
P001	P003
P001	P005
P003	P001

CREATE TABLE "DartPass"
("DPassID" NUMBER(*,0) NOT NULL ENABLE,

"Expiry" DATE NOT NULL ENABLE,
"Price" NUMBER(*,0) NOT NULL ENABLE, "DPSEPid" VARCHAR2(4 BYTE) NOT
NULL ENABLE,

ENABLE,
PRIMARY KEY ("DPassID"),

"DPPid" VARCHAR2(4 BYTE) NOT NULL

FOREIGN KEY ("DPPid")
REFERENCES "SGC190000"."PERSON" ("Pid") ENABLE,

FOREIGN KEY ("DPSEPid")
REFERENCES "SGC190000"."staff" ("SEPid") ENABLE)

DPassID	Expiry	Price	DPSEPid	DPPid
1	21-11-19	40	P001	P005
2	21-11-19	40	P001	P002
3	21-11-19	40	P003	P005
4	21-11-19	40	P003	P007
5	21-11-19	40	P003	P010
6	21-11-19	40	P001	P012
7	21-11-19	40	P020	P014
8	21-11-19	40	P020	P004
9	21-11-19	40	P020	P012
10	21-11-19	40	P003	P015

CREATE TABLE "Drives"
("DBEPid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"Date" DATE NOT NULL ENABLE,
"hours" NUMBER(*,0) NOT NULL ENABLE, "DLicenseNo" NUMBER(*,0) NOT NULL ENABLE,

PRIMARY KEY ("DBEPid", "Date", "DLicenseNo"), FOREIGN KEY ("DBEPid")

REFERENCES "SGC190000"."BusDriver" ("BEPid") ENABLE, FOREIGN KEY ("DLicenseNo")

REFERENCES "SGC190000"."bus" ("LicenseNo") ENABLE)

DBEPid	Date	hours	DLicenseNo
P012	24-11-19	5	12345
P012	23-11-19	4	12345
P012	22-11-19	5	12345
P012	21-11-19	7	12345
P012	20-11-19	6	12345
P012	19-11-19	8	12345
P012	18-11-19	6	12345
P012	06-11-19	5	23456
P014	13-11-19	4	23456
P016	15-11-19	5	34567
P004	09-11-19	6	45678
P008	26-11-19	3	56789
P007	08-11-19	5	67890
P010	03-11-19	4	67890

CREATE TABLE "employee"
("EPid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"StartDate" DATE NOT NULL ENABLE,

PRIMARY KEY ("EPid"),
CONSTRAINT "employee_FK1" FOREIGN KEY ("EPid")

REFERENCES "SGC190000"."PERSON" ("Pid") ENABLE)

EPid	StartDate
P001	18-11-15
P002	09-10-14
P003	13-11-10
P004	11-07-17
P008	17-07-19
P007	19-11-19
P010	05-08-19
P012	13-11-10
P014	13-11-10
P016	13-11-10
P018	13-11-10
P020	13-11-10

CREATE TABLE "Guest"
("GASEPid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"GASAPid" VARCHAR2(4 BYTE) NOT NULL ENABLE, NULL ENABLE, "GName"
VARCHAR2(15 BYTE) NOT
NULL ENABLE,

"GuestId" VARCHAR2(4 BYTE) NOT

"ContactInfo" VARCHAR2(50 BYTE) NOT NULL ENABLE, "GUESTSSN" NUMBER
NOT NULL ENABLE,
"ADDRESS" VARCHAR2(50 BYTE) NOT NULL ENABLE, "NOOFTRAVELS"
NUMBER NOT NULL ENABLE,

CONSTRAINT "Guest_PK" PRIMARY KEY ("GASEPid", "GASAPid",
"GUESTSSN"), CONSTRAINT "TRAVEL_LIMIT" CHECK ("NOOFTRAVELS"<=4)
ENABLE, FOREIGN KEY ("GASAPid", "GASEPid")

REFERENCES "SGC190000"."AStarPassenger" ("ASAPid", "ASEPid") ENABLE)

GASEPid	GASAPid	GuestId	GName	ContactInfo	GUESTSSN	ADDRESS	NOOFTRAVE.
P018	P018	123	tom	dsfgsdfgasdfg	123	sdfgsdfg	3
P018	P018	123	bill	asdfgasdfga	234	sdfgsdfger	2
P016	P016	144	jeff	asdfgasdf	345	sergvsre	4
P016	P016	144	james	asdfgasdf	456	stujtdyh	2
P020	P020	155	carter	asdasdfar	567	srhtwhw	3
P020	P020	155	lenny	aerteqr4	678	sfhterhe6	1

CREATE TABLE "OverallBusInfo"
("ORId" NUMBER(*,0) NOT NULL ENABLE,

"OBsId" NUMBER(*,0) NOT NULL ENABLE,
"OTTId" VARCHAR2(4 BYTE) NOT NULL ENABLE, "Status" VARCHAR2(10
BYTE) NOT NULL ENABLE, "OLicenseNo" NUMBER(*,0) NOT NULL ENABLE,
"DateOfOperation" DATE NOT NULL ENABLE, "TimeArrived" VARCHAR2(5 BYTE)
NOT NULL ENABLE,

CONSTRAINT "STATUS" CHECK ("Status" in ('Delayed','On-Time','Cancelled'))
ENABLE, FOREIGN KEY ("OBsId")

REFERENCES "SGC190000"."BusStop" ("BsId") ENABLE, UNIQUE("OBsId"),

FOREIGN KEY ("ORId")
REFERENCES "SGC190000"."route" ("Rid") ENABLE,

FOREIGN KEY ("OTTId")
REFERENCES "SGC190000"."TimeTable" ("TTId") ENABLE,

FOREIGN KEY ("OLicenseNo")
REFERENCES "SGC190000"."bus" ("LicenseNo") ENABLE

)

ORId	OBsId	OTTId	Status	OLicenseNo	DateOfOperation	TimeArrived
1	1	DT01	Delayed	12345	19-09-19	13:25
1	2	DT02	On-Time	12345	29-10-19	13:30
2	3	DT02	Cancelled	34567	11-11-19	13:00
2	4	DT03	Cancelled	34567	20-11-19	14:00
3	1	DT05	Delayed	67890	17-11-19	14:22
5	5	DT06	On-Time	56789	20-11-19	14:00
5	6	DT06	On-Time	56789	20-11-19	14:00
3	3	DT05	On-Time	12345	20-11-19	14:00
5	8	DT07	On-Time	56789	20-11-19	14:00
5	7	DT06	On-Time	56789	20-11-19	14:00
7	6	DT03	On-Time	23456	20-11-19	14:00
8	8	DT04	On-Time	45678	20-11-19	14:00
2	4	DT03	Cancelled	34567	21-11-19	14:00

CREATE TABLE "Parked"

("PTerminalId" NUMBER(*,0) NOT NULL ENABLE, "PLicenseNo" NUMBER(*,0) NOT NULL ENABLE,

FOREIGN KEY ("PTerminalId")
REFERENCES "SGC190000"."terminal" ("TerminalId") ENABLE,

FOREIGN KEY ("PLicenseNo")
REFERENCES "SGC190000"."bus" ("LicenseNo") ENABLE

)

PTerminalId	PLicenseNo
1	12345
1	23456
2	23456
2	34567
3	34567
3	45678
6	45678
6	56789
7	56789
7	12345

CREATE TABLE "Payment"
("PayId" NUMBER(*,0) NOT NULL ENABLE,

"Method" VARCHAR2(10 BYTE) NOT NULL ENABLE, "Date" DATE NOT NULL ENABLE,
"PPid" VARCHAR2(4 BYTE) NOT NULL ENABLE, "StaffId" VARCHAR2(4 BYTE) NOT NULL ENABLE,

PRIMARY KEY ("PayId"), FOREIGN KEY ("PPid")

REFERENCES "PERSON" ("Pid") ENABLE, FOREIGN KEY ("StaffId")

REFERENCES "SGC190000"."staff" ("SEPid") ENABLE)

PayId	Method	Date	PPid	StaffId
1	Cash	13-11-19	P004	P001
2	Cash	13-11-19	P004	P001
3	Card	13-11-19	P005	P001
8	Card	13-11-19	P005	P003
9	Cash	13-11-19	P005	P003
10	Cash	13-11-19	P010	P003
4	Card	13-11-19	P010	P003
5	Card	13-11-19	P012	P003
6	Card	13-11-19	P012	P020
7	Card	13-11-19	P015	P020

CREATE TABLE "person_phonenumber"
("Phone_Pid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"PhoneNumber" VARCHAR2(20 BYTE) NOT NULL ENABLE,
PRIMARY KEY ("PhoneNumber"),
CONSTRAINT "NUMBERMATCH" CHECK (Regexp_like("PhoneNumber",'[0-9]{10}'))

ENABLE,
FOREIGN KEY ("Phone_Pid")

REFERENCES "SGC190000"."PERSON" ("Pid") ENABLE)

Phone_Pid	PhoneNumber
P005	2483293033
P003	2481234565
P003	4564343432

CREATE TABLE "Promotions"
("PDPassID" NUMBER(*,0) NOT NULL ENABLE,

"PromotionId" NUMBER(*,0) NOT NULL ENABLE, "PromotionName"
VARCHAR2(15 BYTE) NOT NULL ENABLE,)

PRIMARY KEY ("PromotionId",”PDPassID”), FOREIGN KEY ("PDPassID")

REFERENCES "SGC190000"."DartPass" ("DPassID") ENABLE

PDPassID	PromotionId	PromotionName
1	1	Free
1	2	Free
1	3	Free
2	4	25% off
3	5	50% off
3	6	25% off

CREATE TABLE "route"
("Rid" NUMBER(*,0) NOT NULL ENABLE,

"RouteName" VARCHAR2(20 BYTE) NOT NULL ENABLE, PRIMARY KEY ("Rid")

)

Rid	RouteName
1	McCallum-Meandering
2	McCallum-Frankford
3	George Bush East
4	McCallum-Neverland
5	Frankford-Atlantis
6	Atlantis-Chatham
7	Plano-Frankford
8	UTD-Plano

CREATE TABLE "staff"
("SEPid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

PRIMARY KEY ("SEPid"), FOREIGN KEY ("SEPid")

REFERENCES "SGC190000"."employee" ("EPid") ENABLE)

⇕ ... ⛢
P001
P003
P018
P002
P020

CREATE TABLE "terminal"
("TerminalId" NUMBER(*,0) NOT NULL ENABLE,

"Loc" VARCHAR2(30 BYTE) NOT NULL ENABLE, "Date" DATE NOT NULL ENABLE,
"Time" VARCHAR2(5 BYTE) NOT NULL ENABLE,

PRIMARY KEY ("TerminalId"))

Termi...	Loc	Date	Time
1	WestHam	19-11-19	10:00
2	Tottenham	19-11-19	10:00
3	Chelsea	19-11-19	10:00
4	Burnley	19-11-19	10:00
5	Liverpool	19-11-19	10:00
6	Manchester	19-11-19	10:00
7	Cardiff	19-11-19	10:00
8	Sheffield	19-11-19	10:00

CREATE TABLE "ticket"
("TPid" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"TicketId" NUMBER(*,0) NOT NULL ENABLE, "BusId" NUMBER(*,0) NOT NULL ENABLE, "SeatNo" NUMBER(*,0) NOT NULL ENABLE, "Price" FLOAT(126) NOT NULL ENABLE,
"TSEPid" VARCHAR2(4 BYTE) NOT NULL ENABLE, "DATEOFTRAVEL" DATE NOT NULL ENABLE,

PRIMARY KEY ("TicketId"), FOREIGN KEY ("TPid")

REFERENCES "SGC190000"."PERSON" ("Pid") ENABLE, FOREIGN KEY ("BusId")

REFERENCES "SGC190000"."bus" ("BusNo") ENABLE, FOREIGN KEY ("TSEPid")

REFERENCES "SGC190000"."staff" ("SEPid") ENABLE)

TPid	TicketId	BusId	SeatNo	Price	TSEPid	DATEOFTRAVEL
P001	1	2	23	5.99	P003	24-12-18
P002	2	1	34	5.99	P001	24-01-19
P002	3	2	54	5.99	P001	21-10-17
P002	4	1	23	5.99	P003	11-01-19
P003	5	2	22	5.99	P001	21-10-19
P003	6	2	11	5.99	P001	26-10-19
P001	7	1	12	5.99	P003	24-10-19
P005	8	1	13	5.99	P003	24-09-19
P005	9	4	14	6.99	P001	19-08-19
P004	10	4	23	5.99	P003	14-01-19
P005	11	4	14	6.99	P001	24-09-19
P005	12	4	14	6.99	P001	19-10-19
P005	13	4	14	6.99	P001	19-11-19
P005	14	4	14	6.99	P001	25-09-19
P005	15	4	14	6.99	P001	19-11-19
P005	16	4	14	6.99	P001	19-10-19
P005	17	4	14	6.99	P001	19-10-19
P005	18	4	14	6.99	P001	19-10-19
P005	20	4	14	6.99	P001	19-11-19
P005	21	4	14	6.99	P001	19-11-19
P005	22	4	14	6.99	P001	19-11-19
P005	23	4	14	6.99	P001	19-11-19
P005	24	4	14	6.99	P001	19-11-19
P005	25	4	14	6.99	P001	19-11-19
P005	26	4	14	6.99	P001	19-11-19
P005	27	4	14	6.99	P001	19-11-19
P005	28	4	14	6.99	P001	19-11-19
P005	29	4	14	6.99	P001	19-11-19
P005	30	4	14	6.99	P001	19-11-19
P005	31	4	14	6.99	P001	19-11-19
P005	32	4	14	6.99	P001	19-11-19

CREATE TABLE "TimeTable"
("TTId" VARCHAR2(4 BYTE) NOT NULL ENABLE,

"Day" VARCHAR2(20 BYTE) NOT NULL ENABLE,

"StTime" VARCHAR2(5 BYTE) NOT NULL ENABLE, NULL ENABLE,
"INTERVAL" NUMBER NOT NULL ENABLE,

"endTime" VARCHAR2(5 BYTE) NOT

PRIMARY KEY ("TTId"),
CONSTRAINT "TTID_FORMAT" CHECK (Regexp_like("TTId",'DT[0-9][0-9]'))
ENABLE, CONSTRAINT "INTERVAL_CHECK" CHECK ("INTERVAL" in
(15,20,30)) ENABLE,
CONSTRAINT "DAYS" CHECK

(Regexp_like("Day",'(M|W|T|Th|F|Sat|Sun)(,(M|T|W|Th|F|Sat|Sun))*')) ENABLE)

TTId	Day	StTime	endTime	INTERVAL
DT01	M,W	07:00	22:00	15
DT02	W,Th	07:00	22:00	15
DT03	T,Th	09:00	23:00	20
DT04	Sat,Sun	09:00	23:00	20
DT05	M,W,T	07:00	23:00	30
DT06	F,Sat,Sun	07:00	21:00	15
DT07	Sun	10:00	18:00	20
DT08	M,T,W,Th,F	10:00	20:00	30

CREATE TABLE "travelcard"
("TravelCardID" NUMBER(*,0) NOT NULL ENABLE,

"Expiry" DATE NOT NULL ENABLE,
"IssueDate" DATE NOT NULL ENABLE,
"Price" FLOAT(126) NOT NULL ENABLE,
"StaffId" VARCHAR2(4 BYTE) NOT NULL ENABLE, "TCASAPid" VARCHAR2(4 BYTE) NOT NULL ENABLE, "TCASEPid" VARCHAR2(4 BYTE) NOT NULL ENABLE, "TravelCount" NUMBER(*,0) NOT NULL ENABLE,

PRIMARY KEY ("TravelCardID"), FOREIGN KEY ("StaffId")

REFERENCES "SGC190000"."staff" ("SEPid") ENABLE, FOREIGN KEY ("TCASAPid", "TCASEPid")

REFERENCES "SGC190000"."AStarPassenger" ("ASAPid", "ASEPid") ENABLE)

TravelCardID	Expiry	IssueDate	Price	StaffId	TCASAPid	TCASEPid	TravelCount
1	24-11-18	24-10-18	10	P001	P003	P003	30
2	24-11-18	24-10-18	10	P001	P004	P004	70
3	03-12-17	03-11-17	10	P003	P007	P007	80
4	19-08-15	19-07-15	10	P003	P010	P010	30
5	11-09-19	11-08-19	8	P001	P003	P003	30
6	11-06-19	11-05-19	8	P001	P003	P003	30
7	07-08-19	07-07-19	9	P001	P007	P007	10
8	26-04-19	26-03-19	9	P003	P007	P007	40
9	19-08-15	19-07-15	9	P020	P016	P016	30
10	19-08-15	19-07-15	9	P020	P018	P018	10
11	19-08-15	19-07-15	9	P020	P016	P016	40
12	19-08-15	19-07-15	9	P001	P018	P018	30
13	19-08-15	19-07-15	9	P001	P016	P016	10
14	19-08-15	19-07-15	9	P003	P018	P018	40
15	19-08-15	19-07-15	9	P003	P016	P016	30
16	19-08-15	19-07-15	9	P003	P018	P018	10
17	19-08-15	19-07-15	9	P001	P016	P016	40
18	19-08-15	19-07-15	9	P001	P018	P018	30
19	19-08-15	19-07-15	9	P001	P016	P016	10
20	19-08-15	19-07-15	9	P020	P018	P018	40