

**CPD-2154-ORACLE DATABASE WITH SQL
TERM PROJECT**

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APPEARANCE

REQUIREMENT ANALYSIS

ASHLEY'S LAWN AND GARDEN EQUIPMENT SALES & SERVICE

Mention the name Ashley and the words quality and service immediately come to mind. Ashley's Lawn & Garden Equipment was founded in 2000 by Ashley and, under her ownership, has evolved into the most respected and longest established lawn and garden equipment dealer in the area. Currently, the company sells and services all brands of lawn and garden equipment with a focus on lawn mowers, snow blowers, generators, and chain saws. The company is an authorized service dealer for all the manufactures they deal with, including all engines used in the equipment they sell.

The company employs three full-time office employees and four service employees. Service employees perform the work when equipment is brought in for service. In addition, they hire part-time employees on a seasonal basis. Office employees receive a salary. Service employees are paid an hourly-rate and a bonus based on performance. Part-time employees are paid an hourly rate. Because of the different seasons, part-time employees are hired when needed. As a result, the company stores historical records on part-time employees maintaining their starting and ending dates, job title, and hourly rate during each employment.

Every customer owns at least one equipment. However, some customers may own several equipment. Some customers are in business and can own several equipment of the same model. Each customer is identified by a customer id and their first name, last name, email, and mobile number is retained in the system

As mentioned, the company services several types of equipment. Each equipment is identified by its unique serial number. In addition, the system stores the brand and model of each equipment. For lawnmowers, the system stores the propulsion type, starter type, drive control, speed control, cutting width, wheel size, discharge, and bag capacity. For snow blowers, the system stores amprange, driveway size, clearing width range, chute control, intake height range, electric start, usage. For generators, the system stores remote starter, wattage range, and fuel type. For each chain saws, the system stores the power type, chain saw length, chain oiling, and if the case is included.

When equipment is purchased, it is recorded in the database. As a result, some equipment may not have been serviced yet. When equipment is brought in for service, a service request is generated with a unique service id and assigned to one service employee. For each service, the service date, service description, and hourly labor rate are recorded. Once a service is completed, the actual number of hours spend on the job are recorded. Over time, each equipment may generate several service requests. However, each service request is for only one equipment. An employee can be working on several service requests at any one time. However, an employee may be off and not be working on any service requests.

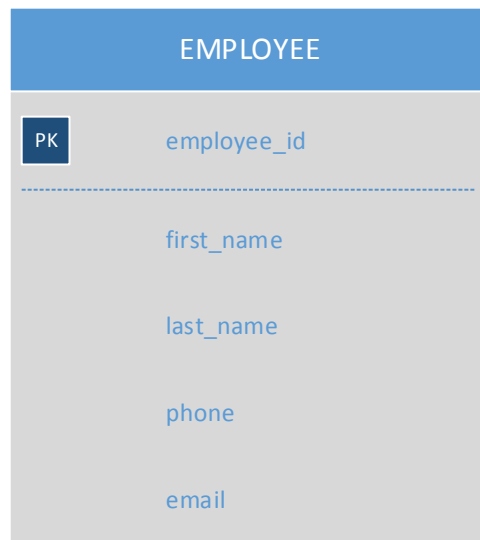
An equipment service may require a part with some services requiring several parts. For example, the yearly check-up of a lawn mower may include the installation of a new oil filter, a new air filter, and blade. But cleaning the fuel line does not require a part.

Each part is identified by part id. The part description, cost, and quantity on hand are recorded for reorder purposes.

ER DIAGRAM BASED ON REQUIREMENTS ANALYSIS

ENTITIES AND ATTRIBUTES LIST

EMPLOYEE:



FULL_TIME:



PART_TIME:

PART_TIME	
PK	employee_id
<hr/>	
	hourly_rate
	bonus

SERVICE:

SERVICE	
PK	employee_id
<hr/>	
	hourly_rate
	bonus

JOB_HISTORY:

JOB_HISTORY	
PK	start_date
<hr/>	
	job_title
	hourly_rate
	end_date

PART:

PART	
PK	part_id
<hr/>	
	quantity
	cost
	description

SERVICE_PART:

SERVICE_PART	
PK	quantity_taken
<hr/>	
	unit_cost

SERVICE_REQUEST:

SERVICE_REQUEST	
PK	service_id
<hr/>	
	date
	hourly_labour_rate
	description
	no_of_house_on_job

CUSTOMER:

CUSTOMER	
PK	customer_id
<hr/>	
	last_name
	phone
	email

COMPANY:

COMPANY	
PK	company_id
<hr/>	
	company_name

PURCHASE:

PURCHASE	
PK	purchase_id
<hr/>	
	product_id
	purchase_date

EQUIPMENT:

EQUIPMENT	
PK	serial_number
<hr/>	
	model_number
	brand_number

GENERATOR:

GENERATOR	
PK	fuel_type
<hr/>	
	wattage_range
	remote_start

LAWN_MOVER:

LAWN_MOVER	
<hr/>	
	starter_type
	drive_control
	speed_control
	wheel
	bag_capacity
	discharge

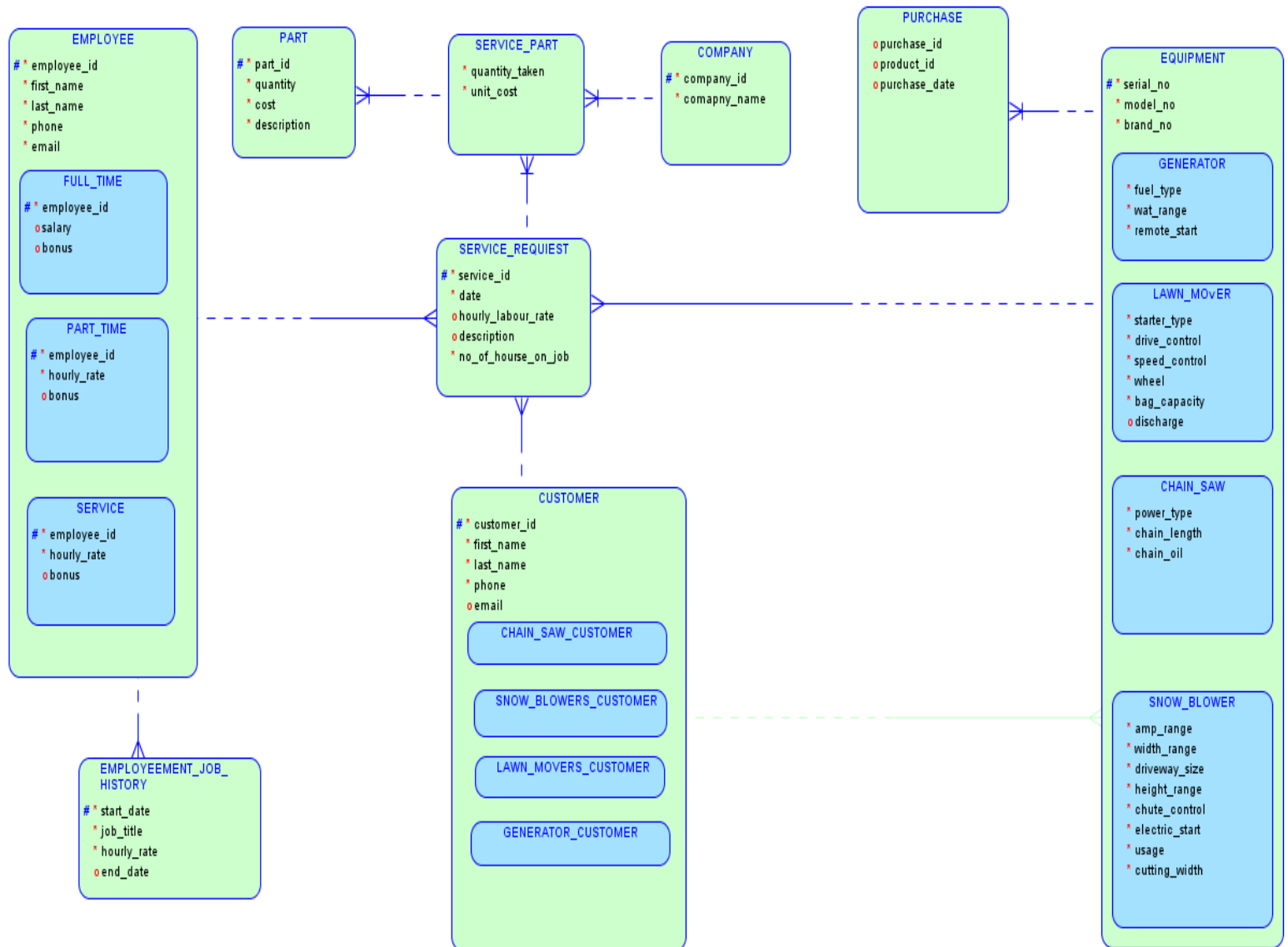
CHAIN_SAW:

CHAIN_SAW	
<hr/>	
	power_type
	chain_length
	chain_oil

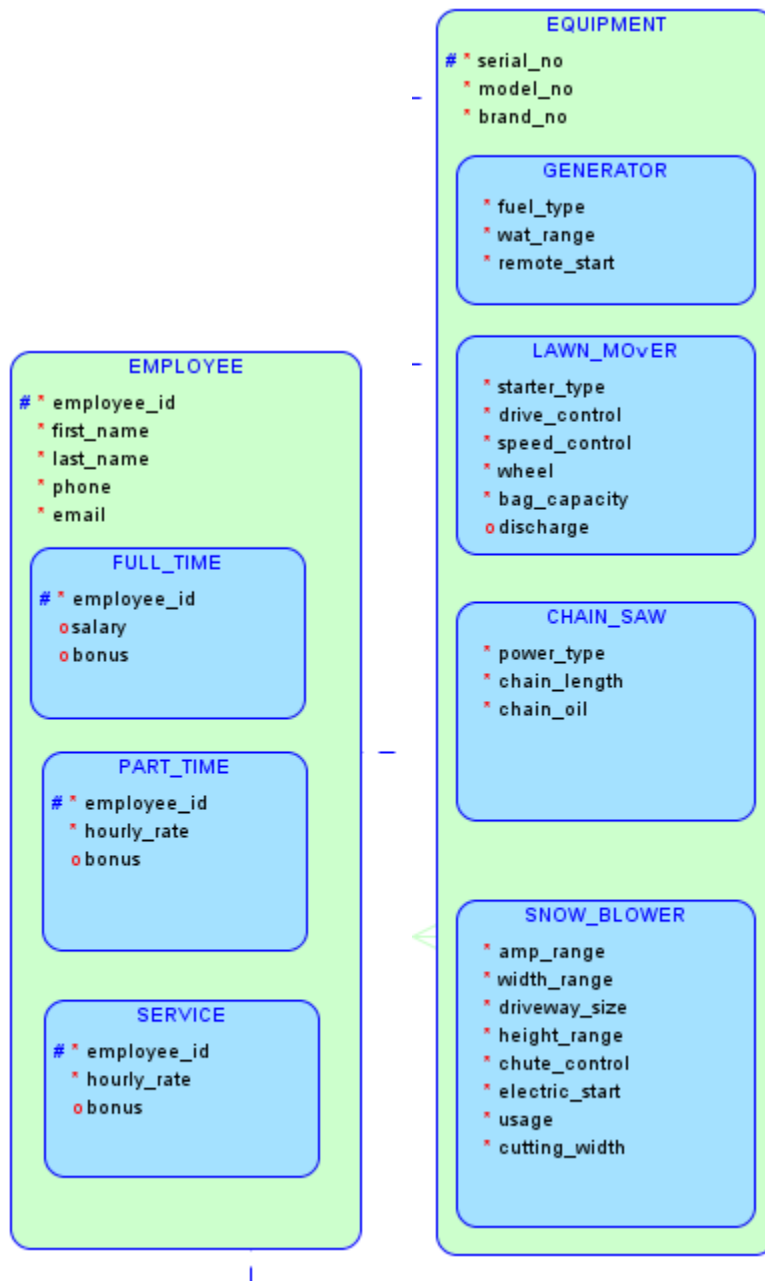
SNOW_BLOWER:

SNOW_BLOWER
amp_range
width_range
driveway_size
height_range
chute_control
electric_start
usage
cutting_width

ER DIAGRAM



SUPERTYPE/SUPTYPES:



RELATIONAL PHYSICAL MODEL

CUSTOMER:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Customer ID(pk)	*	INTEGER	10
First Name	*	CHARACTER	20
Last Name	*	CHARACTER	20
Phone	*	INTEGER	10
Email(uk)	O	VARCHAR	20

EMPLOYEE:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Employee ID(pk)	*	INTEGER	10
First_name	*	DATE	
Last_name	*	INTEGER	10
Phone(uk)	*	CHARACTER	20
Email	O	CHARACTER	50
Employee Type	*	CHARACTER	30
Salary	*	INTEGER	20
Hourly_rate	*	INTEGER	20
bonus	O	INTEGER	20

JOB_HISTORY:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Employee ID(pk)(fk)	*	INTEGER	10
Start_date(pk)	*	DATE	
End_date	O	DATE	
Job_title	*	CHARACTER	20
Hourly_rate	*	INTEGER	10

SERVICE_REQUEST:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Service ID(pk)	*	INTEGER	10
Service_description	O	CHARACTER	20
Service_date	*	DATE	
Hourly_labor_rate	O	INTEGER	10
Number_of_hours_spend_on_job	*	INTEGER	20
Serial_number (fk)	*	INTEGER	10
Employee_id(fk)	*	INTEGER	10

SERVICE_PART:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Part ID(pk)(fk)	*	INTEGER	10
Service ID(pk)(fk)	*	INTEGER	10
Quantity_taken	*	INTEGER	10
Unit cost	*	INTEGER	20

PART:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Part ID(pk)	*	INTEGER	10
Description	*	CHARACTER	20
Quantity	*	INTEGER	20
Cost	*	INTEGER	10

EQUIPMENT:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Serial_number(pk)	*	INTEGER	5
Brand_no	*	INTEGER	20
Model_number	*	INTEGER	10
Equipment_type	*	VARCHAR	20
Customer_id(fk)	*	INTEGER	10

LAWN_MOWER:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Serial_number(pk)(fk)	*	INTEGER	10
Propulsion_type	*	VARCHAR	20
Starter_type	*	VARCHAR	25
Drive_control	*	VARCHAR	25
Speed_control	*	VARCHAR	25
Wheel_size	*	VARCHAR	20
Bag_capacity	*	VARCHAR	20

SNOW_BLOWER:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Serial_number(pk)(fk)	*	INTEGER	10
Amp_range	*	VARCHAR	20
Driveway_size	*	VARCHAR	20
Width_range	*	VARCHAR	20
Chute_control	*	VARCHAR	20
Height_range	*	VARCHAR	20
Electric_start	*	VARCHAR	20
Usage	*	VARCHAR	20
Cutting_width	*	VARCHAR	20

GENERATOR:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Serial_number(pk)(fk)	*	INTEGER	10
Remote_starter	*	VARCHAR	20
Wattage_range	*	VARCHAR	20
Fuel_type	*	VARCHAR	20

FULL_TIME:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Employee_id(pk)	*	INTEGER	10
Salary	*	INTEGER	20
Bonus	O	INTEGER	20

SERVICE:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Employee_id(pk)	*	INTEGER	10
Hourly_rate	*	INTEGER	20
Bonus	O	INTEGER	20

COMPANY:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Serial_number(pk)(fk)	*	INTEGER	10
Remote_starter	*	VARCHAR	20
Wattage_range	*	VARCHAR	20
Fuel_type	*	VARCHAR	20

CHAIN_SAW:

ATTRIBUTE	OPTIONALITY("*", "O")	DATA TYPE	LENGTH
Serial_number(pk)(fk)	*	INTEGER	10
Power_type	*	VARCHAR	20
Chain_saw_length	*	VARCHAR	20
Chain_oiling	*	VARCHAR	20

RELATIONSHIPS USING ERD LANGUAGE

CUSTOMER_CTR-EQUIPMENT_EQP

- Each CUSTOMER_CTR must buy one or more EQUIPMENT_EQP
- Each EQUIPMENT_EQP must belong to one and only one CUSTOMER_CTR

CUSTOMER_CTR - SERVICE_REQUEST_SREQ

- Each CUSTOMER_CTR may request for one or more SERVICE_REQUEST_SREQ
- Each SERVICE_REQUEST_SREQ must be requested by one and only one CUSTOMER_CTR

EQUIPMENT_EQP - SERVICE_REQUEST_SREQ

- Each EQUIPMENT_EQP may come one or more time for SERVICE_REQUEST_SREQ
- Each SERVICE_REQUEST_SREQ must done on one and only EQUIPMENT_EQP

SERVICE_PART_SP - SERVICE_REQUEST_SREQ

- Each SERVICE_PART_SP must done on one and only SERVICE_REQUEST_SREQ
- Each SERVICE_REQUEST_SREQ may require zero, one or more SERVICE_PART_SP

SERVICE_SER - SERVICE_REQUEST_SREQ

- Each SERVICE_SER may work on zero, one or more SERVICE_REQUEST_SREQ
- Each SERVICE_REQUEST_SREQ must be performed by one and only one SERVICE_SER

PART_PR - SERVICE_PART_SP

- Each PART_PR may require by one or more SERVICE_PART_SP
- Each SERVICE_PART_SP must belong to one and only one PART_PR

PART_TIME_PT - JOB_HISTORY_HSY

- Each PART_TIME_PT must have one or more JOB_HISTORY_HSY
- Each JOB_HISTORY_HSY must belong to one and only one PART_TIME_PT

CREATE PHYSICAL TABLES (DDL)

SQL CREATE STATEMENTS

```
--CREATE CUSTOMER (CTR)
CREATE TABLE CUSTOMER_CTR
(CTR_ID NUMBER(10) NOT NULL,
CTR_FIRST_NAME VARCHAR2(20) NOT NULL,
CTR_LAST_NAME VARCHAR2(20),
CTR_PHONE NUMBER(10) NOT NULL,
CTR_EMAIL VARCHAR2(20) NOT NULL
);

--CREATE EMPLOYEE (EMP)
CREATE TABLE EMPLOYEE_EMP
(EMP_ID NUMBER(10) NOT NULL,
EMP_FIRST_NAME VARCHAR2(20) NOT NULL,
EMP_LAST_NAME VARCHAR2(20),
EMP_PHONE NUMBER(10) NOT NULL,
EMP_EMAIL VARCHAR2(20),
EMP_EMPLOYEE_TYPE VARCHAR2(20) NOT NULL,
EMP_SALARY NUMBER(10),
EMP_HOURLY_RATE NUMBER(10),
EMP_BONUS NUMBER(10),
);
```

```

--CREATE FULL_TIME (FT)
CREATE TABLE FULL_TIME_FT
(FT_EMP_ID NUMBER(10) NOT NULL,
FT_SALARY NUMBER(10) ,
FT_HOURLY_RATE NUMBER(10) ,
FT_BONUS NUMBER(10) ,
);

--CREATE PART_TIME (PT)
CREATE TABLE PART_TIME_PT
(PT_EMP_ID NUMBER(10) NOT NULL,
PT_SALARY NUMBER(10) ,
PT_HOURLY_RATE NUMBER(10) ,
PT_BONUS NUMBER(10) ,
);

--CREATE SERVICE (SER)
CREATE TABLE SERVICE_SER
(SER_EMP_ID NUMBER(10) NOT NULL,
SER_SALARY NUMBER(10) ,
SER_HOURLY_RATE NUMBER(10) ,
SER_BONUS NUMBER(10) ,
);

```

```

--CREATE JOB_HISTORY(HSY)
CREATE TABLE JOB_HISTORY_HSY
(HSY_EMP_ID NUMBER(10) NOT NULL,
HSY_START_DATE DATE NOT NULL,
HSY_END_DATE DATE,
HSY_JOB_TITLE VARCHAR2(20) NOT NULL,
HSY_HOURLY_RATE NUMBER(10) );

-- CREATE SERVICE_REQUEST(SREQ)
CREATE TABLE SERVICE_REQUEST_SREQ
(SREQ_ID NUMBER(10) NOT NULL,
SREQ_SERVICE_DESCRIPTION VARCHAR2(20) ,
SREQ_SERVICE_DATE DATE NOT NULL,
SREQ_HOURLY_RATE NUMBER(10) NOT NULL,
SREQ_NUMBER_OF_HOURS_SPEND_ON_JOB VARCHAR2(20) NOT NULL,
SREQ_EMPLOYEE_ID NUMBER(10) NOT NULL,
SREQ_SERIAL_NUMBER NUMBER(10) NOT NULL
);

-- CREATE SERVICE_PART(SP)
CREATE TABLE SERVICE_PART_SP
(SP_PART_ID NUMBER(10) NOT NULL,
SP_SERVICE_ID NUMBER(10) NOT NULL,
SP_QUANTITY_TAKEN NUMBER(10) NOT NULL,
SP_UNIT_COST NUMBER(10) NOT NULL
);

```

```

-- CREATE PART (PR)
CREATE TABLE PART_PR
(PR_ID NUMBER(10) NOT NULL,
PR_DESCRIPTION VARCHAR2(20),
PR_QUANTITY NUMBER(10) NOT NULL,
PR_COST NUMBER(10) NOT NULL
);

-- CREATE EQUIPMENT (EQP)
CREATE TABLE EQUIPMENT_EQP
(EQP_SERIAL_NUMBER NUMBER(10) NOT NULL,
EQP_BRAND_NO NUMBER(10) NOT NULL,
EQP_MODEL_NUMBER NUMBER(10) NOT NULL,
EQP_EQUIPMENT_TYPE VARCHAR2(20)
EQP_CUSTOMER_ID NUMBER(10) NOT NULL,
);

-- CREATE LAWN_MOWER (LM)
CREATE TABLE LAWN_MOWER_LM
( LM_SERIAL_NUMBER NUMBER(10) NOT NULL,
LM_PROPULSION_TYPE VARCHAR2(20) NOT NULL,
LM_STARTER_TYPE VARCHAR2(20) NOT NULL,
LM_DRIVE_CONTROL VARCHAR2(20) NOT NULL,
LM_SPEED_CONTROL VARCHAR2(20) NOT NULL,
LM_WHEEL_SIZE VARCHAR2(20) NOT NULL,
LM_BAG_CAPACITY VARCHAR2(20) NOT NULL
);

```

```

-- CREATE SNOW_BLOWER(SB)
CREATE TABLE SNOW_BLOWER_SB
( SB_SERIAL_NUMBER NUMBER(10) NOT NULL,
SB_AMP_RANGE VARCHAR2(20) NOT NULL,
SB_DRIVEWAY_SIZE VARCHAR2(20) NOT NULL,
SB_WIDTH_RANGE VARCHAR2(20) NOT NULL,
SB_CHUTE_CONTROL VARCHAR2(20) NOT NULL,
SB_HEIGHT_RANGE VARCHAR2(20) NOT NULL,
SB_ELECTRIC_START VARCHAR2(20) NOT NULL,
SB_USAGE VARCHAR2(20),
SB_CUTTING_WIDTH VARCHAR2(20) NOT NULL
);

-- CREATE GENERATOR(GEN)
CREATE TABLE GENERATOR_GEN
(GEN_SERIAL_NUMBER NUMBER(10) NOT NULL,
GEN_REMOTE_STARTER VARCHAR2(20) NOT NULL,
GEN_WATTAGE_RANGE VARCHAR2(20) NOT NULL,
GEN_FUEL_TYPE VARCHAR2(20) NOT NULL
);

-- CREATE CHAIN_SAW(CS)
CREATE TABLE CHAIN_SAW_CS
(CS_SERIAL_NUMBER NUMBER(10) NOT NULL,
CS_POWER_TYPE VARCHAR2(20) NOT NULL,
CS_CHAIN_SAW_LENGTH VARCHAR2(20) NOT NULL,
CS_CHAIN_OILING VARCHAR2(20) NOT NULL
);

```

SQL CONSTRAINT STATEMENTS

```
-- CUSTOMER
ALTER TABLE CUSTOMER_CTR ADD CONSTRAINT CUSTOMER_CTR_ID_pk PRIMARY KEY(CTR_ID);
ALTER TABLE CUSTOMER_CTR ADD CONSTRAINT CUSTOMER_CTR_EMAIL_uk UNIQUE (CTR_EMAIL);

-- EMPLOYEE
ALTER TABLE EMPLOYEE_EMP ADD CONSTRAINT EMPLOYEE_EMP_ID_pk PRIMARY KEY(EMP_ID);
ALTER TABLE EMPLOYEE_EMP ADD CONSTRAINT EMPLOYEE_EMP_PHONE_uk UNIQUE (EMP_PHONE);

ALTER TABLE EMPLOYEE_EMP ADD CONSTRAINT EMPLOYEE_EMPLOYEE_TYPE_ck CHECK(EMP_EMPLOYEE_TYPE IN('OFFICE', 'SERVICE', 'PART_TIME'));

ALTER TABLE EMPLOYEE_EMP ADD CONSTRAINT EMPLOYEE_OFFICE_TYPE_ck
CHECK(
    (EMP_EMPLOYEE_TYPE = 'OFFICE'
    AND EMP_SALARY is NOT NULL
    AND EMP_HOURLY_RATE is NULL
    AND EMP_BONUS is NULL )
    OR (EMP_EMPLOYEE_TYPE <> 'OFFICE' ));

ALTER TABLE EMPLOYEE_EMP ADD CONSTRAINT EMPLOYEE_SERVICE_TYPE_ck
CHECK(
    (EMP_EMPLOYEE_TYPE = 'SERVICE'
    AND EMP_SALARY is NULL
    AND EMP_HOURLY_RATE is NOT NULL
    AND EMP_BONUS is NOT NULL )
    OR (EMP_EMPLOYEE_TYPE <> 'SERVICE' ));

ALTER TABLE EMPLOYEE_EMP ADD CONSTRAINT EMPLOYEE_CONTRACT_TYPE_ck
CHECK(
    (EMP_EMPLOYEE_TYPE = 'PART_TIME'
    AND EMP_SALARY is NULL
    AND EMP_HOURLY_RATE is NOT NULL
    AND EMP_BONUS is NULL )
    OR (EMP_EMPLOYEE_TYPE <> 'PART_TIME' ));
```

```

-- JOB_HISTORY
ALTER TABLE JOB_HISTORY_HSY ADD CONSTRAINT JOB_HISTORY_EMPLOYEE_ID_pk PRIMARY KEY(HSY_EMP_ID);

ALTER TABLE JOB_HISTORY_HSY
ADD CONSTRAINT JOB_HISTORY_EMPLOYEE_ID_fk
FOREIGN KEY (HSY_EMP_ID)
REFERENCES EMPLOYEE_EMP(EMP_ID);

ALTER TABLE JOB_HISTORY_HSY ADD CONSTRAINT JOB_HISTORY_START_DATE_uk UNIQUE KEY(HSY_START_DATE);

-- SERVICE_REQUEST
ALTER TABLE SERVICE_REQUEST_SREQ ADD CONSTRAINT SERVICE_REQUEST_SERVICE_ID_pk PRIMARY KEY(SREQ_ID);

ALTER TABLE SERVICE_REQUEST_SREQ
ADD CONSTRAINT SERVICE_REQUEST_EMPLOYEE_ID_fk
FOREIGN KEY (SREQ_ID)
REFERENCES EMPLOYEE_EMP (EMP_ID);

ALTER TABLE SERVICE_REQUEST_SREQ
ADD CONSTRAINT SERVICE_REQ_SERIAL_NUMBER_fk
FOREIGN KEY (SREQ_SERIAL_NUMBER)
REFERENCES EQUIPMENT_EQP (EQP_SERIAL_NUMBER);

```



```

-- SERVICE_PART
ALTER TABLE SERVICE_PART_SP ADD CONSTRAINT PART_PART_ID_PK PRIMARY KEY (SP_PART_ID, SP_SERVICE_ID);

ALTER TABLE SERVICE_PART_SP
ADD CONSTRAINT SERVICE_PART_PART_ID_fk
FOREIGN KEY (SP_PART_ID)
REFERENCES PART_PR (PR_ID);

ALTER TABLE SERVICE_PART_SP
ADD CONSTRAINT SERVICE_PART_SERVICE_ID_fk
FOREIGN KEY (SP_SERVICE_ID)
REFERENCES SERVICE_REQUEST_SREQ (SREQ_ID);

-- PART
ALTER TABLE PART_PR ADD CONSTRAINT PART_PAR_ID_pk PRIMARY KEY (PR_ID);

-- EQUIPMENT
ALTER TABLE EQUIPMENT_EQP ADD CONSTRAINT EQUIPMENT_SERIAL_NUMBER_pk PRIMARY KEY (EQP_SERIAL_NUMBER);

ALTER TABLE EQUIPMENT_EQP
ADD CONSTRAINT EQUIPMENT_CUSTOMER_ID_fk
FOREIGN KEY (EQP_CUSTOMER_ID)
REFERENCES CUSTOMER_CTR (CTR_ID);

```

```

-- LAWN_MOWER
ALTER TABLE LAWN_MOWER_LM ADD CONSTRAINT LAWN_MOWER_SERIAL_NUMBER_pk PRIMARY KEY (LM_SERIAL_NUMBER);

ALTER TABLE LAWN_MOWER_LM
ADD CONSTRAINT LAWN_MOWER_SERIAL_NUMBER_fk
FOREIGN KEY (LM_SERIAL_NUMBER)
REFERENCES EQUIPMENT_EQP (EQP_SERIAL_NUMBER);

-- SNOW_BLOWER
ALTER TABLE SNOW_BLOWER_SB ADD CONSTRAINT SNOW_BLOWER_SERIAL_NUMBER_pk PRIMARY KEY(SB_SERIAL_NUMBER);

ALTER TABLE SNOW_BLOWER_SB
ADD CONSTRAINT SNOW_BLOWER_SERIAL_NUMBER_fk
FOREIGN KEY (SB_SERIAL_NUMBER)
REFERENCES EQUIPMENT_EQP (EQP_SERIAL_NUMBER);

-- GENERATOR
ALTER TABLE GENERATOR_GEN ADD CONSTRAINT GENERATOR_SERIAL_NUMBER_pk PRIMARY KEY(GEN_SERIAL_NUMBER);

ALTER TABLE GENERATOR_GEN
ADD CONSTRAINT GENERATOR_SERIAL_NUMBER_fk
FOREIGN KEY (GEN_SERIAL_NUMBER)
REFERENCES EQUIPMENT_EQP (EQP_SERIAL_NUMBER);

-- CHAIN_SAW
ALTER TABLE CHAIN_SAW_CS ADD CONSTRAINT CHAIN_SAW_SERIAL_NUMBER_pk PRIMARY KEY(CS_SERIAL_NUMBER);

ALTER TABLE CHAIN_SAW_CS
ADD CONSTRAINT CHAIN_SAW_SERIAL_NUMBER_fk
FOREIGN KEY (CS_SERIAL_NUMBER)
REFERENCES EQUIPMENT_EQP (EQP_SERIAL_NUMBER);

```

SQL INSERT STATEMENTS

```
-- CUSTOMER_CTR
```

```
INSERT INTO CUSTOMER_CTR(CTR_ID, CTR_FIRST_NAME, CTR_LAST_NAME, CTR_PHONE, CTR_EMAIL)
```

```
VALUES(1,'RAMASUBBAIYA','ADAIKKALAM',123245,'A34FG@GMAIL.COM');
```

```
INSERT INTO CUSTOMER_CTR(CTR_ID, CTR_FIRST_NAME, CTR_LAST_NAME, CTR_PHONE, CTR_EMAIL)
```

```
VALUES(2,'SAM','SONY',234567,'SJF34G@GMAIL.COM');
```

```
INSERT INTO CUSTOMER_CTR(CTR_ID, CTR_FIRST_NAME, CTR_LAST_NAME, CTR_PHONE, CTR_EMAIL)
```

```
VALUES(3,'ARUN','ADAIKKALAM',345678,'JH343KFG@GMAIL.COM');
```

```
INSERT INTO CUSTOMER_CTR(CTR_ID, CTR_FIRST_NAME, CTR_LAST_NAME, CTR_PHONE, CTR_EMAIL)
```

```
VALUES(4,'ANTONY','DEVA',456789,'CVN343HM@GMAIL.COM');
```

```
INSERT INTO CUSTOMER_CTR(CTR_ID, CTR_FIRST_NAME, CTR_LAST_NAME, CTR_PHONE, CTR_EMAIL)
```

```
VALUES(5,'MUTHU','AAIYA',567890,'343QWGFHDH@GMAIL.COM');
```

```
-- EMPLOYEE
```

```
INSERT INTO EMPLOYEE_EMP(EMP_ID, EMP_FIRST_NAME, EMP_LAST_NAME, EMP_PHONE, EMP_EMAIL, EMP_EMPLOYEE_TYPE, EMP_SALARY, EMP_HOURLY_RATE, EMP_BONUS)
```

```
VALUES(01,'RAMASUBBAIYA','ADAIKKALAM',123245,'ASDFG@GMAIL.COM','OFFICE',13, NULL, NULL);
```

```
INSERT INTO EMPLOYEE_EMP(EMP_ID, EMP_FIRST_NAME, EMP_LAST_NAME, EMP_PHONE, EMP_EMAIL, EMP_EMPLOYEE_TYPE, EMP_SALARY, EMP_HOURLY_RATE, EMP_BONUS)
```

```
VALUES(02,'SAM','SONY',234567,'SJFG@GMAIL.COM','SERVICE',NULL,12,10);
```

```
INSERT INTO EMPLOYEE_EMP(EMP_ID, EMP_FIRST_NAME, EMP_LAST_NAME, EMP_PHONE, EMP_EMAIL, EMP_EMPLOYEE_TYPE, EMP_SALARY, EMP_HOURLY_RATE, EMP_BONUS)
```

```
VALUES(03,'RAM','ADAIKKALAM',345678,'JHKFG@GMAIL.COM','PART_TIME',13,12,10);
```

```
INSERT INTO EMPLOYEE_EMP(EMP_ID, EMP_FIRST_NAME, EMP_LAST_NAME,  
EMP_PHONE, EMP_EMAIL, EMP_EMPLOYEE_TYPE, EMP_SALARY, EMP_HOURLY_RATE,  
EMP_BONUS)
```

```
VALUES(04,'RAM','DEVA',456789,'CVNHM@GMAIL.COM','SERVICE',NULL,12,NULL);
```

```
INSERT INTO EMPLOYEE_EMP(EMP_ID, EMP_FIRST_NAME, EMP_LAST_NAME,  
EMP_PHONE, EMP_EMAIL, EMP_EMPLOYEE_TYPE, EMP_SALARY, EMP_HOURLY_RATE,  
EMP_BONUS)
```

```
VALUES(05,'RAM','AAIYA',567890,'QWGFDH@GMAIL.COM','OFFICE',13,NULL,NULL);
```

-- JOB_HISTORY

```
INSERT INTO JOB_HISTORY_HSY (HSY_EMP_ID, HSY_START_DATE, HSY_END_DATE,  
HSY_JOB_TITLE, HSY_HOURLY_RATE)
```

```
VALUES('01-JUN-2015','05-MAR-2015','MA',12);
```

```
INSERT INTO JOB_HISTORY_HSY (HSY_EMP_ID, HSY_START_DATE, HSY_END_DATE,  
HSY_JOB_TITLE, HSY_HOURLY_RATE)
```

```
VALUES('01-JUN-2015','05-AUG-2015','MA',12);
```

```
INSERT INTO JOB_HISTORY_HSY (HSY_EMP_ID, HSY_START_DATE, HSY_END_DATE,  
HSY_JOB_TITLE, HSY_HOURLY_RATE)
```

```
VALUES('01-JUL-2015','05-DEC-2015','CA',11);
```

```
INSERT INTO JOB_HISTORY_HSY (HSY_EMP_ID, HSY_START_DATE, HSY_END_DATE,  
HSY_JOB_TITLE, HSY_HOURLY_RATE)
```

```
VALUES('01-AUG-2015','05-JAN-2015','CA',11);
```

```
INSERT INTO JOB_HISTORY_HSY (HSY_EMP_ID, HSY_START_DATE, HSY_END_DATE,  
HSY_JOB_TITLE, HSY_HOURLY_RATE)
```

```
VALUES('01-SEP-2015','05-DEC-2015','MA',12);
```

-- SERVICE_REQUEST

```
INSERT INTO SERVICE_REQUEST_SREQ(SREQ_ID, SREQ_SERVICE_DESCRIPTION,  
SREQ_SERVICE_DATE, SREQ_HOURLY_RATE, SREQ_HOURS_SPEND_ON_JOB,  
SREQ_EMPLOYEE_ID, SREQ_SERIAL_NUMBER)
```

```
VALUES(01,'LM','05-DEC-2015',12,'6', 01, 01);
```

```
INSERT INTO SERVICE_REQUEST_SREQ(SREQ_ID, SREQ_SERVICE_DESCRIPTION,  
SREQ_SERVICE_DATE, SREQ_HOURLY_RATE, SREQ_HOURS_SPEND_ON_JOB,  
SREQ_EMPLOYEE_ID, SREQ_SERIAL_NUMBER)
```

```
VALUES(02,'SB','05-JAN-2015',12,'6', 02, 02);
```

```
INSERT INTO SERVICE_REQUEST_SREQ(SREQ_ID, SREQ_SERVICE_DESCRIPTION,  
SREQ_SERVICE_DATE, SREQ_HOURLY_RATE, SREQ_HOURS_SPEND_ON_JOB,  
SREQ_EMPLOYEE_ID, SREQ_SERIAL_NUMBER)
```

```
VALUES(03,'GEN','05-AUG-2015',12,'6', 03, 03);
```

```
INSERT INTO SERVICE_REQUEST_SREQ(SREQ_ID, SREQ_SERVICE_DESCRIPTION,  
SREQ_SERVICE_DATE, SREQ_HOURLY_RATE, SREQ_HOURS_SPEND_ON_JOB,  
SREQ_EMPLOYEE_ID, SREQ_SERIAL_NUMBER)
```

```
VALUES(04,'LM','05-MAR-2015',12,'6', 04, 04);
```

```
INSERT INTO SERVICE_REQUEST_SREQ(SREQ_ID, SREQ_SERVICE_DESCRIPTION,  
SREQ_SERVICE_DATE, SREQ_HOURLY_RATE, SREQ_HOURS_SPEND_ON_JOB,  
SREQ_EMPLOYEE_ID, SREQ_SERIAL_NUMBER)
```

```
VALUES(05,'SB','05-DEC-2015',12,'6', 05, 05);
```

```
-- SERVICE_PART
```

```
INSERT INTO SERVICE_PART_SP(SP_PART_ID, SP_SERVICE_ID, SP_QUANTITY_TAKEN,  
SP_UNIT_COST)
```

```
VALUES(1, 4, 92, 6);
```

```
INSERT INTO SERVICE_PART_SP(SP_PART_ID, SP_SERVICE_ID, SP_QUANTITY_TAKEN,  
SP_UNIT_COST)
```

```
VALUES(2, 1, 90, 14);
```

```
INSERT INTO SERVICE_PART_SP(SP_PART_ID, SP_SERVICE_ID, SP_QUANTITY_TAKEN,  
SP_UNIT_COST)
```

```
VALUES(3, 2, 91, 15);
```

```
INSERT INTO SERVICE_PART_SP(SP_PART_ID, SP_SERVICE_ID, SP_QUANTITY_TAKEN,  
SP_UNIT_COST)
```

```
VALUES(4, 3, 93, 8);
```

```
INSERT INTO SERVICE_PART_SP(SP_PART_ID, SP_SERVICE_ID, SP_QUANTITY_TAKEN,  
SP_UNIT_COST)
```

```
VALUES(5, 5, 99, 10);
```

```
-- PART
```

```
INSERT INTO PART_PR(PR_ID, PR_DESCRIPTION, PR_QUANTITY, PR_COST)
VALUES(01, 'AD', 10, 5);
INSERT INTO PART_PR(PR_ID, PR_DESCRIPTION, PR_QUANTITY, PR_COST)
VALUES(02, 'TMD', 7, 10);
INSERT INTO PART_PR(PR_ID, PR_DESCRIPTION, PR_QUANTITY, PR_COST)
VALUES(03, 'TBD', 8, 24);
INSERT INTO PART_PR(PR_ID, PR_DESCRIPTION, PR_QUANTITY, PR_COST)
VALUES(04, 'TCD', 11, 56);
INSERT INTO PART_PR(PR_ID, PR_DESCRIPTION, PR_QUANTITY, PR_COST)
VALUES(05, 'TTD', 12, 23);
```

```
-- EQUIPMENT
```

```
INSERT INTO EQUIPMENT_EQP(EQP_SERIAL_NUMBER, EQP_BRAND_NO,
EQP_MODEL_NUMBER, EQP_EQUIPMENT_TYPE, EQP_CUSTOMER_ID)
VALUES(01, '44', 55, 'LAWN_MOWER_LM', 01);
INSERT INTO EQUIPMENT_EQP(EQP_SERIAL_NUMBER, EQP_BRAND_NO,
EQP_MODEL_NUMBER, EQP_EQUIPMENT_TYPE, EQP_CUSTOMER_ID)
VALUES(02, '45', 56, 'SNOW_BLOWER_SB', 02);
INSERT INTO EQUIPMENT_EQP(EQP_SERIAL_NUMBER, EQP_BRAND_NO,
EQP_MODEL_NUMBER, EQP_EQUIPMENT_TYPE, EQP_CUSTOMER_ID)
VALUES(03, '46', 57, 'GENERATOR_GEN', 03);
INSERT INTO EQUIPMENT_EQP(EQP_SERIAL_NUMBER, EQP_BRAND_NO,
EQP_MODEL_NUMBER, EQP_EQUIPMENT_TYPE, EQP_CUSTOMER_ID)
VALUES(04, '48', 59, 'LAWN_MOWER_LM', 04);
INSERT INTO EQUIPMENT_EQP(EQP_SERIAL_NUMBER, EQP_BRAND_NO,
EQP_MODEL_NUMBER, EQP_EQUIPMENT_TYPE, EQP_CUSTOMER_ID)
VALUES(05, '47', 58, 'CHAIN_SAW_CS', 05);
```

```
-- LAWN_MOWER
```

```
INSERT INTO LAWN_MOWER_LM(LM_SERIAL_NUMBER, LM_PROPULSION_TYPE,  
LM_STARTER_TYPE, LM_DRIVE_CONTROL, LM_SPEED_CONTROL, LM_WHEEL_SIZE,  
LM_BAG_CAPACITY)
```

```
VALUES(01, '34', '585', '45', '80', '45', '4');
```

```
INSERT INTO LAWN_MOWER_LM(LM_SERIAL_NUMBER, LM_PROPULSION_TYPE,  
LM_STARTER_TYPE, LM_DRIVE_CONTROL, LM_SPEED_CONTROL, LM_WHEEL_SIZE,  
LM_BAG_CAPACITY)
```

```
VALUES(02, '544', '685', '55', '81', '46', '5');
```

```
INSERT INTO LAWN_MOWER_LM(LM_SERIAL_NUMBER, LM_PROPULSION_TYPE,  
LM_STARTER_TYPE, LM_DRIVE_CONTROL, LM_SPEED_CONTROL, LM_WHEEL_SIZE,  
LM_BAG_CAPACITY)
```

```
VALUES(03, '64', '785', '65', '82', '47', '6');
```

```
INSERT INTO LAWN_MOWER_LM(LM_SERIAL_NUMBER, LM_PROPULSION_TYPE,  
LM_STARTER_TYPE, LM_DRIVE_CONTROL, LM_SPEED_CONTROL, LM_WHEEL_SIZE,  
LM_BAG_CAPACITY)
```

```
VALUES(04, '723', '885', '75', '83', '48', '7');
```

```
INSERT INTO LAWN_MOWER_LM(LM_SERIAL_NUMBER, LM_PROPULSION_TYPE,  
LM_STARTER_TYPE, LM_DRIVE_CONTROL, LM_SPEED_CONTROL, LM_WHEEL_SIZE,  
LM_BAG_CAPACITY)
```

```
VALUES(05, '233', '985', '85', '84', '49', '8');
```

```
-- SNOW_BLOWER
```

```
INSERT INTO SNOW_BLOWER_SB(SB_SERIAL_NUMBER, SB_AMP_RANGE,  
SB_DRIVEWAY_SIZE, SB_WIDTH_RANGE, SB_CHUTE_CONTROL, SB_HEIGHT_RANGE,  
SB_ELECTRIC_START, SB_USAGE, SB_CUTTING_WIDTH)
```

```
VALUES(01, '832', '98', '85', '84', '49', '8', '45', '76');
```

```
INSERT INTO SNOW_BLOWER_SB(SB_SERIAL_NUMBER, SB_AMP_RANGE,  
SB_DRIVEWAY_SIZE, SB_WIDTH_RANGE, SB_CHUTE_CONTROL, SB_HEIGHT_RANGE,  
SB_ELECTRIC_START, SB_USAGE, SB_CUTTING_WIDTH)
```

```
VALUES(02, '235', '385', '95', '94', '79', '9', '456', '766');
```

```
INSERT INTO SNOW_BLOWER_SB(SB_SERIAL_NUMBER, SB_AMP_RANGE,  
SB_DRIVEWAY_SIZE, SB_WIDTH_RANGE, SB_CHUTE_CONTROL, SB_HEIGHT_RANGE,  
SB_ELECTRIC_START, SB_USAGE, SB_CUTTING_WIDTH)
```

```
VALUES(03, '345', '485', '35', '74', '89', '10', '457', '767');
```

```
INSERT INTO SNOW_BLOWER_SB(SB_SERIAL_NUMBER, SB_AMP_RANGE,  
SB_DRIVEWAY_SIZE, SB_WIDTH_RANGE, SB_CHUTE_CONTROL, SB_HEIGHT_RANGE,  
SB_ELECTRIC_START, SB_USAGE, SB_CUTTING_WIDTH)
```

```
VALUES(04, '455', '585', '55', '64', '99', '11', '458', '768');
```

```
INSERT INTO SNOW_BLOWER_SB(SB_SERIAL_NUMBER, SB_AMP_RANGE,  
SB_DRIVEWAY_SIZE, SB_WIDTH_RANGE, SB_CHUTE_CONTROL, SB_HEIGHT_RANGE,  
SB_ELECTRIC_START, SB_USAGE, SB_CUTTING_WIDTH)
```

```
VALUES(05, '975', '685', '65', '54', '100', '12', '459', '769');
```

```
-- GENERATOR
```

```
INSERT INTO GENERATOR_GEN(GEN_SERIAL_NUMBER, GEN_REMOTE_STARTER,  
GEN_WATTAGE_RANGE, GEN_FUEL_TYPE)
```

```
VALUES(01, '675', '685', '65');
```

```
INSERT INTO GENERATOR(SERIAL_NUMBER, REMOTE_STARTER, WATTAGE_RANGE,  
FUEL_TYPE)
```

```
VALUES(02, '645', '785', '75');
```

```
INSERT INTO GENERATOR(SERIAL_NUMBER, REMOTE_STARTER, WATTAGE_RANGE,  
FUEL_TYPE)
```

```
VALUES(03, '725', '885', '85');
```

```
INSERT INTO GENERATOR(SERIAL_NUMBER, REMOTE_STARTER, WATTAGE_RANGE,  
FUEL_TYPE)
```

```
VALUES(04, '345', '985', '95');
```

```
INSERT INTO GENERATOR(SERIAL_NUMBER, REMOTE_STARTER, WATTAGE_RANGE,  
FUEL_TYPE)
```

```
VALUES(05, '345', '585', '45');
```



```
-- CHAIN_SAW
```

```
INSERT INTO CHAIN_SAW_CS(CS_SERIAL_NUMBER, CS_POWER_TYPE,  
CS_CHAIN_SAW_LENGTH, CS_CHAIN_OILING)
```

```
VALUES(04, '237', '885', '85');
```

```
INSERT INTO CHAIN_SAW(SERIAL_NUMBER, POWER_TYPE, CHAIN_SAW_LENGTH,  
CHAIN_OILING)
```

```
VALUES(05, '347', '985', '75');
```

```
INSERT INTO CHAIN_SAW(SERIAL_NUMBER, POWER_TYPE, CHAIN_SAW_LENGTH,  
CHAIN_OILING)
```

```
VALUES(03, '237', '385', '65');
```



```
INSERT INTO CHAIN_SAW(SERIAL_NUMBER, POWER_TYPE, CHAIN_SAW_LENGTH,  
CHAIN_OILING)
```

```
VALUES(02, '327', '485', '55');
```

```
INSERT INTO CHAIN_SAW(SERIAL_NUMBER, POWER_TYPE, CHAIN_SAW_LENGTH,  
CHAIN_OILING)
```

```
VALUES(01, '237', '585', '45');
```

OUTPUT OF TABLES:

Rows  

Save

Run

SELECT * FROM CUSTOMER_CTR

Results

Explain

Describe

Saved SQL

History

CTR_ID	CTR_FIRST_NAME	CTR_LAST_NAME	CTR_PHONE	CTR_EMAIL
1	RAMASUBBAIYA	ADAIKKALAM	123245	A34FG@GMAIL.COM
2	SAM	SONY	234567	SJF34G@GMAIL.COM
3	ARUN	ADAIKKALAM	345678	JH343KFG@GMAIL.COM
5	MUTHU	AAIYA	567890	343QWGFDH@GMAIL.COM
4	ANTONY	DEVA	456789	CVN343HM@GMAIL.COM

5 rows returned in 0.01 seconds [Download](#)

Rows
10
Save
Run



SELECT * FROM EMPLOYEE_EMP

Results Explain Describe Saved SQL History

EMP_ID	EMP_FIRST_NAME	EMP_LAST_NAME	EMP_PHONE	EMP_EMAIL	EMP_EMPLOYEE_TYPE	EMP_SALARY	EMP_HOURLY_RATE	EMP_BONUS
3	RAM	ADAIKKALAM	12883245	ASDFG@GMAIL.COM	OFFICE	13	-	-
1	RAMASUBBAIYA	ADAIKKALAM	123245	ASDFG@GMAIL.COM	OFFICE	13	-	-
2	SAM	SONY	234567	SJFG@GMAIL.COM	SERVICE	-	12	10
4	RAM	ADAIKKALAM	128893245	ASDFG@GMAIL.COM	OFFICE	13	-	-
5	RAM	ADAIKKALAM	1288793245	ASDFG@GMAIL.COM	OFFICE	13	-	-

5 rows returned in 0.00 seconds
[Download](#)

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows  

Save

Run

```
SELECT * FROM PART_PR;
```

Results

Explain

Describe


Saved SQL

History

PR_ID	PR_DESCRIPTION	PR_QUANTITY	PR_COST
4	TCD	11	56
1	AD	10	5
2	TMD	7	10
3	TBD	8	24
5	TTD	12	23

5 rows returned in 0.01 seconds [Download](#)

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows 

Save

Run

```
SELECT * FROM EQUIPMENT_EQP;
```

Results

Explain

Describe

Saved SQL

History

EQP_SERIAL_NUMBER	EQP_BRAND_NO	EQP_MODEL_NUMBER	EQP_EQUIPMENT_TYPE	EQP_CUSTOMER_ID
1	44	55	LAWN_MOWER_LM	1
2	45	56	SNOW_BLOWER_SB	2
4	48	59	LAWN_MOWER_LM	4
5	47	58	CHAIN_SAW_CS	5
3	46	57	GENERATOR_GEN	3

5 rows returned in 0.01 seconds

[Download](#)

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows10

SaveRun

SELECT * FROM LAMN_MOWER_LM

Results

Explain

Describe

Saved SQL

History

LM_SERIAL_NUMBER	LM_PROPULSION_TYPE	LM_STARTER_TYPE	LM_DRIVE_CONTROL	LM_SPEED_CONTROL	LM_WHEEL_SIZE	LM_BAG_CAPACITY
1	34	585	45	80	45	4
2	544	685	55	81	46	5
3	64	785	65	82	47	6
4	723	885	75	83	48	7
5	233	985	85	84	49	8

5 rows returned in 0.00 secondsDownload

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows10

SaveRun

SELECT * FROM SNOW_BLOWER_SB

Results

Explain

Describe


Saved SQL

History

SB_SERIAL_NUMBER	SB_AMP_RANGE	SB_DRIVEWAY_SIZE	SB_WIDTH_RANGE	SB_CHUTE_CONTROL	SB_HEIGHT_RANGE	SB_ELECTRIC_START	SB_USAGE	SB_CUTTING_WIDTH
1	832	98	85	84	49	8	45	76
3	345	485	35	74	89	10	457	767
5	975	685	65	54	100	12	459	769
2	235	385	95	94	79	9	456	766
4	455	585	55	64	99	11	458	768

5 rows returned in 0.00 secondsDownload

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows


Save
Run


SELECT * FROM GENERATOR_GEN

Results
Explain
Describe
Saved SQL
History

GEN_SERIAL_NUMBER	GEN_REMOTE_STARTER	GEN_WATTAGE_RANGE	GEN_FUEL_TYPE
1	675	685	65
2	645	785	75
3	725	885	85
4	345	985	95
5	345	585	45

5 rows returned in 0.00 seconds
[Download](#)

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows 

Save

Run

SELECT * FROM CHAIN_SAW_CS

Results

Explain

Describe

Saved SQL

History

CS_SERIAL_NUMBER	CS_POWER_TYPE	CS_CHAIN_SAW_LENGTH	CS_CHAIN_OILING
5	347	985	75
4	237	885	85
3	237	385	65
2	327	485	55
1	237	585	45

5 rows returned in 0.01 seconds [Download](#)

Workspace: CA_1800 User: CA_1800_SQL01_S121

BUSINESS RULES & CONSTRAINTS

CUSTOMER_CTR

- Each customer is identified by a unique customer ID.
- Each customer has a customer Name
- Each customer has a Phone Number
- Each customer has an email which is unique

EMPLOYEE_EMP

- Each employee is identified by a unique EmployeeID
- Each employee has a Employee Name
- Each employee has a unique Phone Number

JOB HISTORY HSY

- Each employee history has a job title
- Each employee history has a start date
- Each employee history has an end date
- Each employee history has an hourly rate
- Each employee history is identified by start_date and a unique employee ID that references a single part time employee which is identified by a part time employee's employee ID

SERVICE_REQUEST_SREQ

- Each service is identified by a unique service ID
- Each service has a service description
- Each service has a service date
- Each service has a hourly labour rate
- Each service has number of hours associated with it
- Each service has an employee's ID that references a single employee which is identified by a service employee's employee ID
- Each service has a serial number that references a each equipment which is identified by an equipment's serial number

SERVICE_PART_SP

- Each service part has a service's ID that references a single service which is identified by a service's service ID
- Each service part has a part's ID that references a single part which is identified by a part's part ID
- Each service part has a quantity taken
- Each service part has a unit cost
-


PART_PR

- Each part is identified by a unique part ID
- Each part has a description
- Each part has a part and quantity
- Cost must be greater than 0
- Each part has a service's ID that references a single service which is identified by a service's service ID

EQUIPMENT_EQP

- Each equipment is identified by a unique serial number
- Each equipment has a brand and a model
- Each equipment has a customer's ID that references a single customer identified by customer's customer ID

--TESTING CONSTRAINT

Rows 10 

Save **Run**


```
INSERT INTO EMPLOYEE_EMP (EMP_ID, EMP_FIRST_NAME, EMP_LAST_NAME, EMP_PHONE, EMP_EMAIL, EMP_EMPLOYEE_TYPE, EMP_SALARY, EMP_HOURLY_RATE, EMP_BONUS)
VALUES (84, 'ANTONY', 'DEVA', 456789, 'CVNHM@GMAIL.COM', 'SERICE', NULL, 12, NULL);
```

Results Explain Describe Saved SQL History

ORA-02290: check constraint (CA_1800_SQL01_S21.EMPLOYEE_EMPLOYEE_TYPE_CK) violated

0.01 seconds

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows10

SaveRun


INSERT INTO JOB_HISTORY_HSY (HSY_START_DATE, HSY_END_DATE, HSY_JOB_TITLE, HSY_HOURLY_RATE)
VALUES('01-JUN-2015', '05-MAR-2015', 'MA',12);

ResultsExplainDescribeSaved SQLHistory

ORA-01400: cannot insert NULL into
("CA_1800_SQL01_S21"."JOB_HISTORY_HSY"."HSY_EMP_ID")

0.00 seconds

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows10

SaveRun

INSERT INTO SERVICE_PART_SP(SP_PART_ID, SP_SERVICE_ID, SP_QUANTITY_TAKEN, SP_UNIT_COST)
VALUES(1, 4, 92, 6);

ResultsExplainDescribeSaved SQLHistory

ORA-02291: integrity constraint (CA_1800_SQL01_S21.SERVICE_PART_SERVICE_ID_FK)
violated - parent key not found

0.01 seconds

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows10

SaveRun

INSERT INTO EMPLOYEE_EMP(EMP_ID, EMP_FIRST_NAME, EMP_LAST_NAME, EMP_PHONE, EMP_EMAIL, EMP_EMPLOYEE_TYPE, EMP_SALARY, EMP_HOURLY_RATE, EMP_BONUS)
VALUES(03,'UAR','RAJE',345678,'JHKFG@GMAIL.COM','PART_TIME',13,12,10);

ResultsExplainDescribeSaved SQLHistory

ORA-02290: check constraint (CA_1800_SQL01_S21.EMPLOYEE_CONTRACT_TYPE_CK) violated

0.01 seconds

Workspace: CA_1800 User: CA_1800_SQL01_S121

Rows10

SaveRun

INSERT INTO CUSTOMER_CTR(CTR_ID, CTR_FIRST_NAME, CTR_LAST_NAME, CTR_PHONE, CTR_EMAIL)
VALUES(1,'RAMASUBBAIYA','ADAIKKALAM',123245,'A34FG@GMAIL.COM');

ResultsExplainDescribeSaved SQLHistory

ORA-00001: unique constraint (CA_1800_SQL01_S21.CUSTOMER_CTR_ID_PK) violated

0.00 seconds

Workspace: CA_1800 User: CA_1800_SQL01_S121