**Term Project: Device management**

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1. Requirements:

We capture information on device. For each device, we capture its device ID, device warehouse ID, and name.

We also capture information on department. For each department, we capture its ID, name, and manager ID.

Every department could apply for multiple devices, and every specific device should be applied by at least one departments. For each application, we capture its device ID, department ID, apply date, and apply quantity.

Every department could return multiple devices, and every specific device should be returned by at least one departments. For each return, we capture its device ID, department ID, device return quantity, and return date.

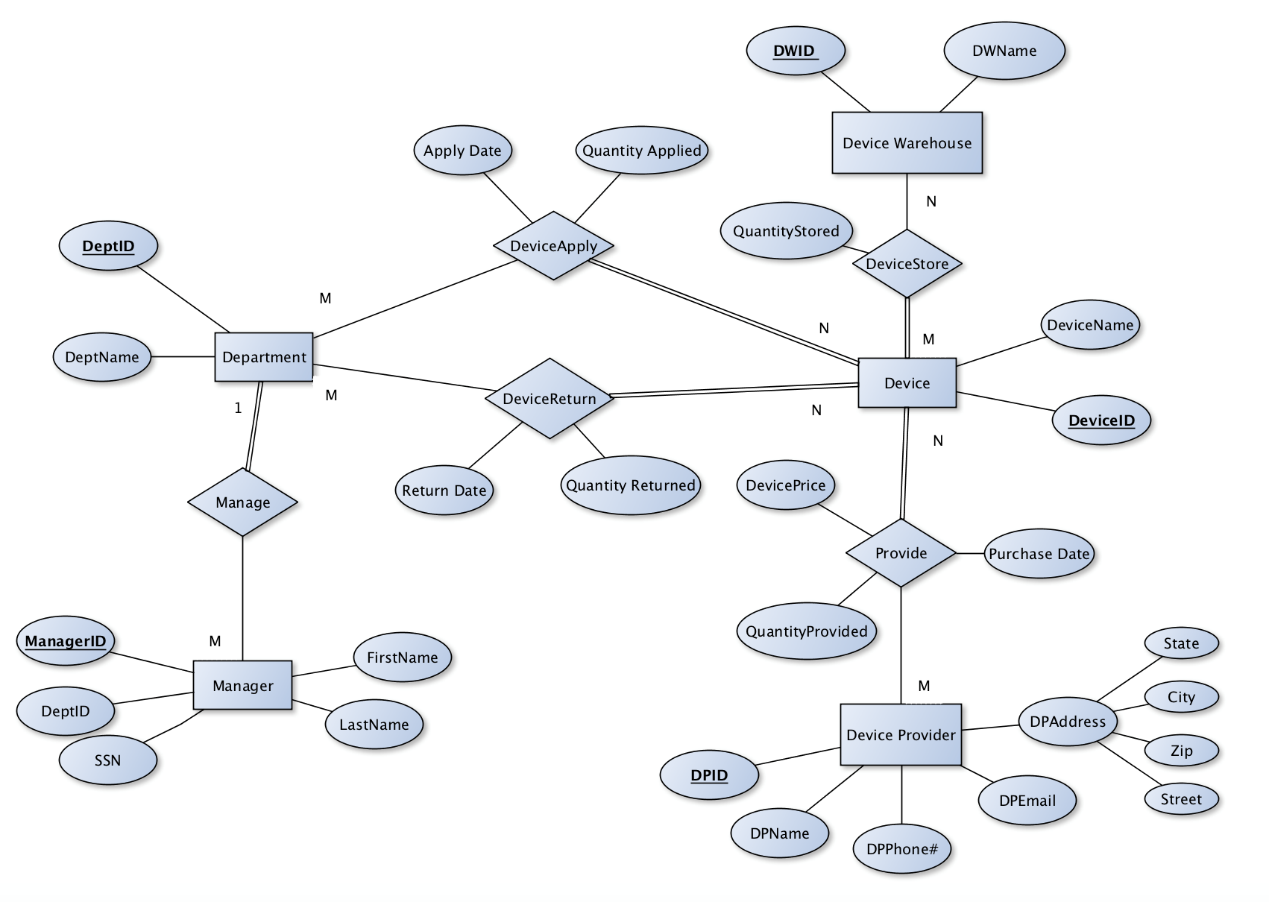
Each device provider could provide multiple devices, and every specific device should be provided by at least one provider. For each provider, we record provider ID, name, address, phone number, and E-mail address. For the purpose of formatting mailings, we like to break the address out by street address, city, state, and zip.

For every device provide, we record provider ID, device ID, device warehouse ID, device price, quantity, and date.

Every device warehouse could store multiple devices, and every device could be stored in multiple warehouse. We record device warehouse ID, device ID and device quantity.

Each manager could manage one department, and every department should be managed by at least one manager. For each manager, we record manager ID, department ID, SSN, last name and first name.

1. ER Model:



1. Relational Schema:

Manager (ManagerID, DeptID, SSN, LastName, FirstName)

Department (DeptID, DeptName)

Device (DeviceID , DeviceName)

DeviceApply (DeviceID, DeptID, ApplyDate, QuantityApplied)

DeviceReturn (DeviceID, DeptID, ReturnDate, QuantityReturned)

DeviceProvider (DPID, DPName, DPAddressID, DPPhoneNum, DPEmail)

Provide (DPID, DeviceID, DevicePrice, QuantityProvided, PurchaseDate)

DeviceWarehouse (DWID, DWName)

DPAddress (DPAddressID, Street, City, State, ZIP)

DeviceStore (DeviceID, DWID, QuantityStored)

1. Data Dictionary:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Department: Contains information about the department of ABC Company | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| DeptID | Unique Identifier for Department | CHAR(4) | 0000-9999 | No | Yes | No |
| DeptName | Present the name of Department | VARCHAR2(30) | All | No | No | No |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Manager: Contains personal information of manager of ABC Company | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| ManagerID | Unique identifier for manager | CHAR(4) | 0000-9999 | No | Yes | No |
| DeptID | Department for which the manager works | CHAR(4) | 0000-9999 | Yes | No | Yes |
| SSN | SNN for manager | CHAR(9) | Value must be unique for each manager | Yes | No | No |
| LastName | Manager last name | VARCHAR2(50) | All | No | No | No |
| FirstName | Manager first name | VARCHAR2(50) | All | No | No | No |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DeviceWarehouse: Contains information about the device warehouse of ABC company | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| DWID | Unique Identifier for Device Warehouses | CHAR(4) | 0000-9999 | No | Yes | No |
| DWName | Name of Device Warehouses | VARCHAR2(30) | All | No | No | No |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Device: Contains information about the device provided in ABC company | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| DeviceID | Unique Identifier for Device | CHAR(4) | 0000-9999 | No | Yes | No |
| DeviceName | Name of Device | VARCHAR2(30) | All | No | No | No |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DeviceProvider: Contains information of device provider of ABC company | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| DPID | Unique Identifier for Device Provider | CHAR(4) | 0000-9999 | No | Yes | No |
| DPAddressID | Address of Device Provider | CHAR(4) | 0000-9999 | No | No | Yes |
| DPName | Name of Device Provider | VARCHAR2(40) | All | No | No | No |
| DPPhoneNum | Phone Number of Device Provider | CHAR(10) | 0000000000-9999999999 | No | No | No |
| DPEmail | Email of Device Provider | VARCHAR2(30) | All | Yes | No | No |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Provide: Contains information of device provided by provider | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| DeviceID | ID of Device | CHAR(4) | 0000-9999 | No | Yes | Yes |
| DPID | ID of Device Provider | CHAR(4) | 0000-9999 | No | Yes | Yes |
| DevicePrice | Price of Device | Number(6,2) | 0-9999.99 | No | No | No |
| Quantity Provided | Quantity of Device Provided by Device provider | Number(4) | All | No | No | No |
| Purchase Date | Purchase Date of Device | DATE | All, and defaults to the date and time at which the record was created | No | No | No |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DeviceApply: Contains Information of device applied within ABC company | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| DeptID | ID of Department | CHAR(4) | 0000-9999 | No | Yes | Yes |
| DeviceID | ID of Device | CHAR(4) | 0000-9999 | No | Yes | Yes |
| Apply Date | Date of Device Applied | DATE | All, and defaults to the date and time at which the record was created | No | No | No |
| Quantity Applied | Quantity of Device Applied | Number(4) | All | No | No | No |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DeviceReturn: Contains Information of device returned within ABC company | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| DeptID | ID of Department | CHAR(4) | 0000-9999 | No | Yes | Yes |
| DeviceID | ID of Device | CHAR(4) | 0000-9999 | No | Yes | Yes |
| Return Date | Date of Device Retuened | DATE | All, and defaults to the date and time at which the record was created | No | No | No |
| Quantity Returned | Quantity of Device Returned | Number(4) | All | No | No | No |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DPAddress: Contains detailed address information of device provider | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| DPAddressID | Unique Identifier for Address of Device Provider | CHAR(4) | 0000-9999 | No | Yes | No |
| State | State of Device Provider | CHAR(2) | All | No | No | No |
| City | City of Device Provider | VARCHAR2(20) | All | No | No | No |
| Street | Street of Device Provider | VARCHAR2(20) | All | No | No | No |
| Zip | Zip of Device Provider | CHAR(5) | 00000-99999 | Yes | No | No |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DeviceStore: Contains Information of device stored by device warehouse | | | | | | |
| Attribute Name | Description | Datatype | Domain | Nullable | PK | FK |
| DWID | ID of Device Warehouses | CHAR(4) | All | No | Yes | Yes |
| DeviceID | ID of Device | CHAR(4) | All | No | Yes | Yes |
| QuantityStored | Quantity of Device Stored by Device Warehouse | Number(4) | All | No | No | No |

1. DDL

CREATE TABLE DEPARTMENT

(

DEPTID CHAR(4 BYTE) NOT NULL

, DEPTNAME VARCHAR2(30 BYTE) NOT NULL

, CONSTRAINT DEPARTMENT\_PK PRIMARY KEY

(

DEPTID

)

USING INDEX

(

CREATE UNIQUE INDEX DEPARTMENT\_PK ON DEPARTMENT (DEPTID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOPARALLEL

)

ENABLE

)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 1

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

-- Unable to render TABLE DDL for object WH355.DEVICE with DBMS\_METADATA attempting internal generator.

CREATE TABLE DEVICE

(

DEVICEID CHAR(4 BYTE) NOT NULL

, DEVICENAME VARCHAR2(30 BYTE) NOT NULL

, CONSTRAINT DEVICE\_PK PRIMARY KEY

(

DEVICEID

)

USING INDEX

(

CREATE UNIQUE INDEX DEVICE\_PK ON DEVICE (DEVICEID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

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NOPARALLEL

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INITRANS 1

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

-- Unable to render TABLE DDL for object WH355.DEVICEAPPLY with DBMS\_METADATA attempting internal generator.

ALTER TABLE DEVICEAPPLY

ADD CONSTRAINT FK\_APPLY\_DEPTID FOREIGN KEY

(

DEPTID

)

REFERENCES DEPARTMENT

(

DEPTID

)

ENABLE

ALTER TABLE DEVICEAPPLY

ADD CONSTRAINT FK\_APPLY\_DEVICEID FOREIGN KEY

(

DEVICEID

)

REFERENCES DEVICE

(

DEVICEID

)

ENABLECREATE TABLE DEVICEAPPLY

(

DEPTID CHAR(4 BYTE) NOT NULL

, DEVICEID CHAR(4 BYTE) NOT NULL

, APPLYDATE DATE NOT NULL

, QUANTITYAPPLIED NUMBER(4, 0)

, CONSTRAINT APPLY\_PK PRIMARY KEY

(

DEPTID

, DEVICEID

)

USING INDEX

(

CREATE UNIQUE INDEX APPLY\_PK ON DEVICEAPPLY (DEPTID ASC, DEVICEID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

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NOPARALLEL

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TABLESPACE "USERS"

PCTFREE 10

INITRANS 1

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

-- Unable to render TABLE DDL for object WH355.DEVICEPROVIDER with DBMS\_METADATA attempting internal generator.

ALTER TABLE DEVICEPROVIDER

ADD CONSTRAINT UNIQUE\_DPADDRESSID UNIQUE

(

DPADDRESSID

)

USING INDEX

(

CREATE UNIQUE INDEX UNIQUE\_DPADDRESSID ON DEVICEPROVIDER (DPADDRESSID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOPARALLEL

)

ENABLEALTER TABLE DEVICEPROVIDER

ADD CONSTRAINT FK\_DEVICEPROVIDER\_DEPTID FOREIGN KEY

(

DPADDRESSID

)

REFERENCES DPADDRESS

(

DPADDRESSID

)

ENABLECREATE TABLE DEVICEPROVIDER

(

DPID CHAR(4 BYTE) NOT NULL

, DPADDRESSID CHAR(4 BYTE) NOT NULL

, DPNAME VARCHAR2(40 BYTE) NOT NULL

, DPPHONENUM CHAR(10 BYTE) NOT NULL

, DPEMAIL VARCHAR2(30 BYTE)

, CONSTRAINT DEVICEPROVIDER\_PK PRIMARY KEY

(

DPID

)

USING INDEX

(

CREATE UNIQUE INDEX DEVICEPROVIDER\_PK ON DEVICEPROVIDER (DPID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

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NOPARALLEL

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PCTFREE 10

INITRANS 1

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

-- Unable to render TABLE DDL for object WH355.DEVICERETURN with DBMS\_METADATA attempting internal generator.

ALTER TABLE DEVICERETURN

ADD CONSTRAINT FK\_RETURN\_DEPTID FOREIGN KEY

(

DEPTID

)

REFERENCES DEPARTMENT

(

DEPTID

)

ENABLE

ALTER TABLE DEVICERETURN

ADD CONSTRAINT FK\_RETURN\_DEVICEID FOREIGN KEY

(

DEVICEID

)

REFERENCES DEVICE

(

DEVICEID

)

ENABLECREATE TABLE DEVICERETURN

(

DEPTID CHAR(4 BYTE) NOT NULL

, DEVICEID CHAR(4 BYTE) NOT NULL

, RETURNDATE DATE NOT NULL

, QUANTITYRETURNED NUMBER(4, 0)

, CONSTRAINT RETURN\_PK PRIMARY KEY

(

DEPTID

, DEVICEID

)

USING INDEX

(

CREATE UNIQUE INDEX RETURN\_PK ON DEVICERETURN (DEPTID ASC, DEVICEID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

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PCTFREE 10

INITRANS 1

MAXTRANS 255

STORAGE

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INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

-- Unable to render TABLE DDL for object WH355.DEVICESTORE with DBMS\_METADATA attempting internal generator.

ALTER TABLE DEVICESTORE

ADD CONSTRAINT FK\_DEVICESTORE\_DEVICEID FOREIGN KEY

(

DEVICEID

)

REFERENCES DEVICE

(

DEVICEID

)

ENABLE

ALTER TABLE DEVICESTORE

ADD CONSTRAINT FK\_DEVICESTORE\_DWID FOREIGN KEY

(

DWID

)

REFERENCES DEVICEWAREHOUSE

(

DWID

)

ENABLECREATE TABLE DEVICESTORE

(

DEVICEID CHAR(4 BYTE) NOT NULL

, DWID CHAR(4 BYTE) NOT NULL

, QUANTITYSTORED NUMBER(4, 0) NOT NULL

, CONSTRAINT DEVICESTORE\_PK PRIMARY KEY

(

DEVICEID

, DWID

)

USING INDEX

(

CREATE UNIQUE INDEX DEVICESTORE\_PK ON DEVICESTORE (DEVICEID ASC, DWID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

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PCTFREE 10

INITRANS 1

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

-- Unable to render TABLE DDL for object WH355.DEVICEWAREHOUSE with DBMS\_METADATA attempting internal generator.

CREATE TABLE DEVICEWAREHOUSE

(

DWID CHAR(4 BYTE) NOT NULL

, DWNAME VARCHAR2(30 BYTE) NOT NULL

, CONSTRAINT DEVICEWAREHOUSE\_PK PRIMARY KEY

(

DWID

)

USING INDEX

(

CREATE UNIQUE INDEX DEVICEWAREHOUSE\_PK ON DEVICEWAREHOUSE (DWID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOPARALLEL

)

ENABLE

)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 1

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

-- Unable to render TABLE DDL for object WH355.DPADDRESS with DBMS\_METADATA attempting internal generator.

CREATE TABLE DPADDRESS

(

DPADDRESSID CHAR(4 BYTE) NOT NULL

, STATE CHAR(2 BYTE) NOT NULL

, CITY VARCHAR2(20 BYTE) NOT NULL

, STREET VARCHAR2(20 BYTE) NOT NULL

, ZIP CHAR(5 BYTE)

, CONSTRAINT DPADDRESS\_PK PRIMARY KEY

(

DPADDRESSID

)

USING INDEX

(

CREATE UNIQUE INDEX DPADDRESS\_PK ON DPADDRESS (DPADDRESSID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOPARALLEL

)

ENABLE

)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 1

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

-- Unable to render TABLE DDL for object WH355.MANAGER with DBMS\_METADATA attempting internal generator.

ALTER TABLE MANAGER

ADD CONSTRAINT FK\_MANAGER\_DEPTID FOREIGN KEY

(

DEPTID

)

REFERENCES DEPARTMENT

(

DEPTID

)

ENABLECREATE TABLE MANAGER

(

MANAGERID CHAR(4 BYTE) NOT NULL

, SSN CHAR(9 BYTE)

, LASTNAME VARCHAR2(50 BYTE) NOT NULL

, FIRSTNAME VARCHAR2(50 BYTE) NOT NULL

, DEPTID CHAR(4 BYTE)

, CONSTRAINT MANAGER\_PK PRIMARY KEY

(

MANAGERID

)

USING INDEX

(

CREATE UNIQUE INDEX MANAGER\_PK ON MANAGER (MANAGERID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

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PCTFREE 10

INITRANS 1

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

-- Unable to render TABLE DDL for object WH355.PROVIDE with DBMS\_METADATA attempting internal generator.

ALTER TABLE PROVIDE

ADD CONSTRAINT FK\_PROVIDE\_DEVICEID FOREIGN KEY

(

DEVICEID

)

REFERENCES DEVICE

(

DEVICEID

)

ENABLE

ALTER TABLE PROVIDE

ADD CONSTRAINT FK\_PROVIDE\_DPID FOREIGN KEY

(

DPID

)

REFERENCES DEVICEPROVIDER

(

DPID

)

ENABLECREATE TABLE PROVIDE

(

DEVICEID CHAR(4 BYTE) NOT NULL

, DPID CHAR(4 BYTE) NOT NULL

, DEVICEPRICE NUMBER(6, 2) NOT NULL

, QUANTITYPROVIDED NUMBER(4, 0)

, PURCHASEDATE DATE

, CONSTRAINT PROVIDE\_PK PRIMARY KEY

(

DEVICEID

, DPID

)

USING INDEX

(

CREATE UNIQUE INDEX PROVIDE\_PK ON PROVIDE (DEVICEID ASC, DPID ASC)

LOGGING

TABLESPACE "USERS"

PCTFREE 10

INITRANS 2

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

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PCTFREE 10

INITRANS 1

MAXTRANS 255

STORAGE

(

INITIAL 65536

MINEXTENTS 1

MAXEXTENTS UNLIMITED

BUFFER\_POOL DEFAULT

)

NOCOMPRESS

1. DML

Insert into MANAGER (ManagerID, DeptID, SSN, LastName, FirstName)

VALUES ('2341','3124','123456789','Johnson','Michael');

Insert into MANAGER (ManagerID, DeptID, SSN, LastName, FirstName)

VALUES ('2134','3125','987654321','Smith','Adam');

Insert into MANAGER (ManagerID, DeptID, SSN, LastName, FirstName)

VALUES ('2431','3127','748195618','Ceryan','Oben');

UPDATE MANAGER

SET LastName = 'Anderson',

FirstName = 'Rolph'

WHERE MANAGERID = '2431';

DELETE FROM MANAGER

WHERE MANAGERID = '2134';

Insert into DEPARTMENT (DeptID, DeptName)

VALUES ('3124','Marketing');

Insert into DEPARTMENT (DeptID, DeptName)

VALUES ('3125','Operations');

Insert into DEPARTMENT (DeptID, DeptName)

VALUES ('3127','Manufacturing');

UPDATE DEPARTMENT

SET DeptName = 'Accounting'

WHERE DeptID = '3125';

DELETE FROM DEPARTMENT

WHERE DeptID = '3124';

Insert into DeviceWarehouse (DWID, DWName)

VALUES ('4123','Magic');

Insert into DeviceWarehouse (DWID, DWName)

VALUES ('4124','Hero');

Insert into DeviceWarehouse (DWID, DWName)

VALUES ('4125','Polish');

UPDATE DeviceWarehouse

SET DWName = 'Macy'

WHERE DWID = '4123';

DELETE FROM DeviceWarehouse

WHERE DWID = '4124';

Insert into Device (DeviceID, DeviceName)

VALUES ('5124','Camera');

Insert into Device (DeviceID, DeviceName)

VALUES ('5125','Saw');

Insert into Device (DeviceID, DeviceName)

VALUES ('5126','Wrench');

UPDATE Device

SET DeviceName = 'Hammer'

WHERE DeviceID = '5125';

DELETE FROM Device

WHERE DeviceID = '5126';

Insert into DeviceProvider (DPID, DPAddressID, DPName, DPPhoneNum, DPEmail)

VALUES ('6123','7654','Intoalox','9876541234','sales@intoalox.com');

Insert into DeviceProvider (DPID, DPAddressID, DPName, DPPhoneNum, DPEmail)

VALUES ('6124','7890','CREDOA','2677899876','sales@credoa.com');

Insert into DeviceProvider (DPID, DPAddressID, DPName, DPPhoneNum, DPEmail)

VALUES ('6125','7865','ELDAQE','2677929345','sales@eldaqe.com');

UPDATE DeviceProvider

SET DPPhoneNum = '2155766790',

DPEmail = 'inquiry@intoalox.com'

WHERE DPID = '6123';

DELETE FROM DeviceProvider

WHERE DPID = '6125';

Insert into Provide (DeviceID, DPID, DevicePrice, QuantityProvided, PurchaseDate)

VALUES ('5124','6123',968.00,'5','01-JAN-2013');

Insert into Provide (DeviceID, DPID, DevicePrice, QuantityProvided, PurchaseDate)

VALUES ('5125','6124',168.45,'3','30-JUN-2014');

Insert into Provide (DeviceID, DPID, DevicePrice, QuantityProvided, PurchaseDate)

VALUES ('5126','6125',390.09,'8','03-AUG-2014');

UPDATE Provide

SET DevicePrice = 368.45,

PurchaseDate = '30-JUN-2015'

WHERE DeviceID = '5125';

DELETE FROM Provide

WHERE DeviceID = '5126';

Insert into DeviceApply (DeptID, DeviceID, ApplyDate, QuantityApplied)

VALUES ('3124','5124','09-JAN-2014','3');

Insert into DeviceApply (DeptID, DeviceID, ApplyDate, QuantityApplied)

VALUES ('3125','5125','03-FEB-2014','1');

Insert into DeviceApply (DeptID, DeviceID, ApplyDate, QuantityApplied)

VALUES ('3127','5126','09-MAR-2014','2');

UPDATE DeviceApply

SET ApplyDate = '04-FEB-2014',

QuantityApplied = '3'

WHERE DeptID = '3125';

DELETE FROM DeviceApply

WHERE DeptID = '3127';

Insert into DeviceReturn (DeptID, DeviceID, ReturnDate, QuantityReturned)

VALUES ('3124','5124','13-JAN-2014','3');

Insert into DeviceReturn (DeptID, DeviceID, ReturnDate, QuantityReturned)

VALUES ('3125','5125','04-MAR-2014','1');

Insert into DeviceReturn (DeptID, DeviceID, ReturnDate, QuantityReturned)

VALUES ('3127','5126','09-JUN-2014','1');

UPDATE DeviceReturn

SET QuantityReturned = '3'

WHERE DeptID = '3125';

DELETE FROM DeviceReturn

WHERE DeptID = '3127';

Insert into DeviceStore (DWID, DeviceID, QuantityStored)

VALUES ('4123','5124','20');

Insert into DeviceStore (DWID, DeviceID, QuantityStored)

VALUES ('4124','5125','35');

Insert into DeviceStore (DWID, DeviceID, QuantityStored)

VALUES ('4125','5126','45');

UPDATE DeviceStore

SET QuantityStored = '60'

WHERE DWID = '4123';

DELETE FROM DeviceStore

WHERE DWID = '4124';

Insert into DPAddress (DPAddressID, State, City, Street, Zip)

VALUES ('7654','PA','Philadelphia','Market','19102');

Insert into DPAddress (DPAddressID, State, City, Street, Zip)

VALUES ('7890','DE','Wilmington','Pinehurst','19808');

Insert into DPAddress (DPAddressID, State, City, Street, Zip)

VALUES ('7865','NY','New York','Washington','11205');

UPDATE DPAddress

SET Street = 'Shipley',

Zip = '19801'

WHERE DPAddressID = '7890';

DELETE FROM DPAddress

WHERE DPAddressID = '7865';

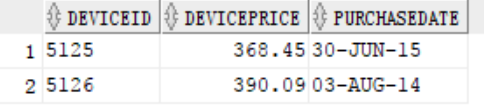
1. Queries

Get the device ID which purchased after 1/1/2014 and the price is more than 300:

select DeviceID, DevicePrice, PurchaseDate

From Provide

Where DevicePrice > 300 AND PurchaseDate > '01-JAN-2014';

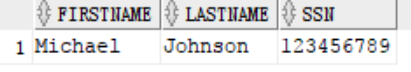


Get the first name, last name and SSN from whose name contain “a”:

Select FirstName, LastName, SSN

From Manager

Where FirstName LIKE ('%a%');



Get the total quantity applied of every device, group by and order by device:

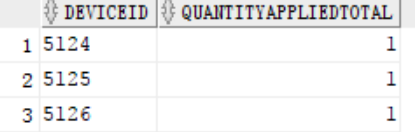
SELECT DeviceID,

Count(QuantityApplied) AS QuantityAppliedTOTAL

FROM DeviceApply

GROUP BY DeviceID

ORDER BY DeviceID;



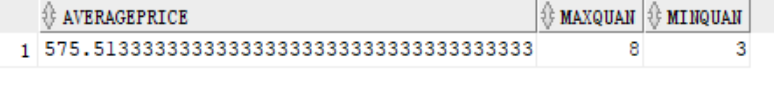
Get the average, max and minimum price of device:

SELECT AVG (DevicePrice) as averageprice,

MAX(QuantityProvided) As MaxQuan,

MIN(QuantityProvided) AS MinQuan

From Provide;



Get manager’s first name, last name, SSN, and department:

Select m.FirstName, m.LastName, m.SSN, d.DeptName

From MANAGER m, DEPARTMENT d

Where m.DeptID = d.DeptID;

