SET ECHO ON

SPOOL prop\_rental\_schema\_output.txt

-- Database Teaching Team

-- Property Rental Logical Model Schema script file

-- Schema file includes example constraint to control pay\_type

/\*

Databases Week 6 Tutorial Sample Solution

prop\_rental\_schema.sql

Databases Units

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DROP TABLE damage CASCADE CONSTRAINTS;

DROP TABLE maintenance CASCADE CONSTRAINTS;

DROP TABLE owner CASCADE CONSTRAINTS;

DROP TABLE payment CASCADE CONSTRAINTS;

DROP TABLE paymethod CASCADE CONSTRAINTS;

DROP TABLE property CASCADE CONSTRAINTS;

DROP TABLE rent CASCADE CONSTRAINTS;

DROP TABLE tenant CASCADE CONSTRAINTS;

CREATE TABLE damage (

dam\_no NUMBER(5) NOT NULL,

dam\_datetime DATE NOT NULL,

rent\_agreement\_no NUMBER(5) NOT NULL,

dam\_type VARCHAR2(50) NOT NULL,

dam\_cost NUMBER(6, 2) NOT NULL,

pay\_no NUMBER(6)

);

COMMENT ON COLUMN damage.dam\_no IS

'Damage number';

COMMENT ON COLUMN damage.dam\_datetime IS

'Date and time damage occured';

COMMENT ON COLUMN damage.rent\_agreement\_no IS

'Rental agreement number';

COMMENT ON COLUMN damage.dam\_type IS

'Description of the type of damage';

COMMENT ON COLUMN damage.dam\_cost IS

'Cost of repairs for damage';

COMMENT ON COLUMN damage.pay\_no IS

'Receipt number of payment';

CREATE UNIQUE INDEX damage\_\_idx ON

damage (

pay\_no

ASC );

ALTER TABLE damage ADD CONSTRAINT damage\_pk PRIMARY KEY ( dam\_no );

ALTER TABLE damage ADD CONSTRAINT damage\_nk UNIQUE ( rent\_agreement\_no,

dam\_datetime );

CREATE TABLE maintenance (

prop\_no NUMBER(4) NOT NULL,

maint\_datetime DATE NOT NULL,

maint\_desc VARCHAR2(50) NOT NULL,

maint\_cost NUMBER(8, 2) NOT NULL

);

COMMENT ON COLUMN maintenance.prop\_no IS

'Unique property identifier';

COMMENT ON COLUMN maintenance.maint\_datetime IS

'Date maintenance was carried out';

COMMENT ON COLUMN maintenance.maint\_desc IS

'Desciption of maintenace carried out';

COMMENT ON COLUMN maintenance.maint\_cost IS

'Cost of maintenace item';

ALTER TABLE maintenance ADD CONSTRAINT maintenance\_pk PRIMARY KEY ( prop\_no,

maint\_datetime );

CREATE TABLE owner (

owner\_no NUMBER(4) NOT NULL,

owner\_givname VARCHAR2(20),

owner\_famname VARCHAR2(20),

owner\_address VARCHAR2(40) NOT NULL

);

COMMENT ON COLUMN owner.owner\_no IS

'Unique identifier for owner ';

COMMENT ON COLUMN owner.owner\_givname IS

'Given name of property owner';

COMMENT ON COLUMN owner.owner\_famname IS

'Family name of property owner';

COMMENT ON COLUMN owner.owner\_address IS

'Address of property owner';

ALTER TABLE owner ADD CONSTRAINT owner\_pk PRIMARY KEY ( owner\_no );

CREATE TABLE payment (

pay\_no NUMBER(6) NOT NULL,

pay\_date DATE NOT NULL,

pay\_type CHAR(1) NOT NULL,

pay\_amount NUMBER(6, 2) NOT NULL,

rent\_agreement\_no NUMBER(5) NOT NULL,

pay\_paidby NUMBER(4) NOT NULL

);

ALTER TABLE payment

ADD CONSTRAINT chk\_pay\_type CHECK ( pay\_type IN ( 'B', 'D', 'R' ) );

COMMENT ON COLUMN payment.pay\_no IS

'Receipt number of payment';

COMMENT ON COLUMN payment.pay\_date IS

'Date of payment';

COMMENT ON COLUMN payment.pay\_type IS

'Type of payment (Bond, Damage, Rental)';

COMMENT ON COLUMN payment.pay\_amount IS

'Amount of payment';

COMMENT ON COLUMN payment.rent\_agreement\_no IS

'Rental agreement number';

COMMENT ON COLUMN payment.pay\_paidby IS

'Id of payment method';

ALTER TABLE payment ADD CONSTRAINT payment\_pk PRIMARY KEY ( pay\_no );

CREATE TABLE paymethod (

paymethod\_id NUMBER(4) NOT NULL,

paymethod\_name VARCHAR2(15) NOT NULL

);

COMMENT ON COLUMN paymethod.paymethod\_id IS

'Id of payment method';

COMMENT ON COLUMN paymethod.paymethod\_name IS

'Name of payment method';

ALTER TABLE paymethod ADD CONSTRAINT paymethod\_pk PRIMARY KEY ( paymethod\_id );

CREATE TABLE property (

prop\_no NUMBER(4) NOT NULL,

prop\_address VARCHAR2(40) NOT NULL,

prop\_value NUMBER(10, 2) NOT NULL,

owner\_no NUMBER(4) NOT NULL

);

COMMENT ON COLUMN property.prop\_no IS

'Unique property identifier';

COMMENT ON COLUMN property.prop\_address IS

'Address of property';

COMMENT ON COLUMN property.prop\_value IS

'Value of property';

COMMENT ON COLUMN property.owner\_no IS

'Unique identifier for owner ';

ALTER TABLE property ADD CONSTRAINT property\_pk PRIMARY KEY ( prop\_no );

CREATE TABLE rent (

rent\_agreement\_no NUMBER(5) NOT NULL,

rent\_lease\_start DATE NOT NULL,

rent\_weekly\_rate NUMBER(6, 2) NOT NULL,

rent\_bond NUMBER(6, 2) NOT NULL,

rent\_lease\_period NUMBER(2) NOT NULL,

prop\_no NUMBER(4) NOT NULL,

tenant\_no NUMBER(4) NOT NULL

);

COMMENT ON COLUMN rent.rent\_agreement\_no IS

'Rental agreement number';

COMMENT ON COLUMN rent.rent\_lease\_start IS

'Date on which rental agreement starts';

COMMENT ON COLUMN rent.rent\_weekly\_rate IS

'Weekly rental rate paid by tenant';

COMMENT ON COLUMN rent.rent\_bond IS

'Bond paid by tenant';

COMMENT ON COLUMN rent.rent\_lease\_period IS

'Period in months for lease';

COMMENT ON COLUMN rent.prop\_no IS

'Unique property identifier';

COMMENT ON COLUMN rent.tenant\_no IS

'Unique identifier for tenant';

ALTER TABLE rent ADD CONSTRAINT rent\_pk PRIMARY KEY ( rent\_agreement\_no );

ALTER TABLE rent ADD CONSTRAINT rent\_nk UNIQUE ( prop\_no,

rent\_lease\_start );

CREATE TABLE tenant (

tenant\_no NUMBER(4) NOT NULL,

tenant\_famname VARCHAR2(20),

tenant\_givname VARCHAR2(20),

tenant\_address VARCHAR2(40) NOT NULL,

tenant\_phone CHAR(10) NOT NULL

);

COMMENT ON COLUMN tenant.tenant\_no IS

'Unique identifier for tenant';

COMMENT ON COLUMN tenant.tenant\_famname IS

'Family name of tenant';

COMMENT ON COLUMN tenant.tenant\_givname IS

'Given name of tenant';

COMMENT ON COLUMN tenant.tenant\_address IS

'Address of tenant';

COMMENT ON COLUMN tenant.tenant\_phone IS

'Phone number of tenant ';

ALTER TABLE tenant ADD CONSTRAINT tenant\_pk PRIMARY KEY ( tenant\_no );

ALTER TABLE damage

ADD CONSTRAINT damage\_payment FOREIGN KEY ( pay\_no )

REFERENCES payment ( pay\_no );

ALTER TABLE property

ADD CONSTRAINT owner\_property FOREIGN KEY ( owner\_no )

REFERENCES owner ( owner\_no );

ALTER TABLE payment

ADD CONSTRAINT paymethod\_payment FOREIGN KEY ( pay\_paidby )

REFERENCES paymethod ( paymethod\_id );

ALTER TABLE maintenance

ADD CONSTRAINT property\_maintenance FOREIGN KEY ( prop\_no )

REFERENCES property ( prop\_no );

ALTER TABLE rent

ADD CONSTRAINT property\_rent FOREIGN KEY ( prop\_no )

REFERENCES property ( prop\_no );

ALTER TABLE damage

ADD CONSTRAINT rent\_damage FOREIGN KEY ( rent\_agreement\_no )

REFERENCES rent ( rent\_agreement\_no );

ALTER TABLE payment

ADD CONSTRAINT rent\_payment FOREIGN KEY ( rent\_agreement\_no )

REFERENCES rent ( rent\_agreement\_no );

ALTER TABLE rent

ADD CONSTRAINT tenant\_rent FOREIGN KEY ( tenant\_no )

REFERENCES tenant ( tenant\_no );

-- Oracle SQL Developer Data Modeler Summary Report:

--

-- CREATE TABLE 8

-- CREATE INDEX 1

-- ALTER TABLE 19

-- CREATE VIEW 0

-- ALTER VIEW 0

-- CREATE PACKAGE 0

-- CREATE PACKAGE BODY 0

-- CREATE PROCEDURE 0

-- CREATE FUNCTION 0

-- CREATE TRIGGER 0

-- ALTER TRIGGER 0

-- CREATE COLLECTION TYPE 0

-- CREATE STRUCTURED TYPE 0

-- CREATE STRUCTURED TYPE BODY 0

-- CREATE CLUSTER 0

-- CREATE CONTEXT 0

-- CREATE DATABASE 0

-- CREATE DIMENSION 0

-- CREATE DIRECTORY 0

-- CREATE DISK GROUP 0

-- CREATE ROLE 0

-- CREATE ROLLBACK SEGMENT 0

-- CREATE SEQUENCE 0

-- CREATE MATERIALIZED VIEW 0

-- CREATE MATERIALIZED VIEW LOG 0

-- CREATE SYNONYM 0

-- CREATE TABLESPACE 0

-- CREATE USER 0

--

-- DROP TABLESPACE 0

-- DROP DATABASE 0

--

-- REDACTION POLICY 0

--

-- ORDS DROP SCHEMA 0

-- ORDS ENABLE SCHEMA 0

-- ORDS ENABLE OBJECT 0

--

-- ERRORS 0

-- WARNINGS 0

SPOOL OFF

SET ECHO OFF