Jacob Maurer

Final Project 455

Library database

Report:

In the library database management system, users can:

-rent/return books

-see data from each tables based off of view

-add employees/add members

-check late charges and make payments on accounts

The database management system comes in the form of a website written in html, css, and javascript. PHP is used to query data back and forth from the mysql developer the website.

SQL:

The tables were made in oracle and transferred into mySQL

CREATE TABLE "JMAURER"."FINAL\_AUTHOR"

( "AUTHOR\_NAME" VARCHAR2(20 BYTE) NOT NULL ENABLE,

CONSTRAINT "FINAL\_AUTHOR\_PK" PRIMARY KEY ("AUTHOR\_NAME")

USING INDEX PCTFREE 10 INITRANS 2 MAXTRANS 255 COMPUTE STATISTICS

STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645

PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1 BUFFER\_POOL DEFAULT FLASH\_CACHE DEFAULT CELL\_FLASH\_CACHE DEFAULT)

TABLESPACE "JMAURER\_D1" ENABLE

) SEGMENT CREATION IMMEDIATE

PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255 NOCOMPRESS LOGGING

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TABLESPACE "JMAURER\_D1" ;

CREATE TABLE "JMAURER"."FINAL\_BOOK"

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

"PAGES" VARCHAR2(20 BYTE),

"NUMBER\_OF\_COPIES" NUMBER,

"GENRE" VARCHAR2(20 BYTE),

"PUBLISHER" VARCHAR2(20 BYTE),

CONSTRAINT "FINAL\_BOOK\_PK" PRIMARY KEY ("TITLE")

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TABLESPACE "JMAURER\_D1" ENABLE,

CONSTRAINT "FINAL\_BOOK\_FK1" FOREIGN KEY ("PUBLISHER")

REFERENCES "JMAURER"."FINAL\_PUBLISHER" ("PUBLISHER\_NAME") ENABLE

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PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1 BUFFER\_POOL DEFAULT FLASH\_CACHE DEFAULT CELL\_FLASH\_CACHE DEFAULT)

TABLESPACE "JMAURER\_D1" ;

CREATE TABLE "JMAURER"."FINAL\_BOOK\_AUTHOR"

( "AUTHOR\_NAME" VARCHAR2(20 BYTE) NOT NULL ENABLE,

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

CONSTRAINT "FINAL\_BOOK\_AUTHOR\_PK" PRIMARY KEY ("AUTHOR\_NAME", "TITLE")

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TABLESPACE "JMAURER\_D1" ENABLE,

CONSTRAINT "FINAL\_BOOK\_AUTHOR\_FK1" FOREIGN KEY ("TITLE")

REFERENCES "JMAURER"."FINAL\_BOOK" ("TITLE") ENABLE,

CONSTRAINT "FINAL\_BOOK\_AUTHOR\_FK2" FOREIGN KEY ("AUTHOR\_NAME")

REFERENCES "JMAURER"."FINAL\_AUTHOR" ("AUTHOR\_NAME") ENABLE

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TABLESPACE "JMAURER\_D1" ;

CREATE TABLE "JMAURER"."FINAL\_COPY"

( "COPY\_ID" VARCHAR2(20 BYTE) NOT NULL ENABLE,

"AVAILABLE" CHAR(1 BYTE),

"TITLE" VARCHAR2(20 BYTE),

CONSTRAINT "FINAL\_COPY\_PK" PRIMARY KEY ("COPY\_ID")

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TABLESPACE "JMAURER\_D1" ENABLE,

CONSTRAINT "FINAL\_COPY\_CHK1" CHECK (available IN ('Y','N')) ENABLE,

CONSTRAINT "FINAL\_COPY\_FK1" FOREIGN KEY ("TITLE")

REFERENCES "JMAURER"."FINAL\_BOOK" ("TITLE") ON DELETE CASCADE ENABLE

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TABLESPACE "JMAURER\_D1" ;

CREATE OR REPLACE TRIGGER "JMAURER"."COPY\_ADD"

AFTER INSERT ON final\_copy

REFERENCING OLD AS OLD NEW AS NEW

BEGIN

Update final\_book

set final\_book.number\_of\_copies = final\_book.number\_of\_copies + 1

where final\_book.title = title;

END;

/

ALTER TRIGGER "JMAURER"."COPY\_ADD" ENABLE;

CREATE TABLE "JMAURER"."FINAL\_EMPLOYEE"

( "EMPLOYEE\_ID" VARCHAR2(20 BYTE) NOT NULL ENABLE,

"END\_DATE" DATE,

"CHARGES" NUMBER,

"START\_DATE" DATE,

"NAME" VARCHAR2(20 BYTE),

CONSTRAINT "FINAL\_EMPLOYEE\_PK" PRIMARY KEY ("EMPLOYEE\_ID")

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TABLESPACE "JMAURER\_D1" ;

CREATE OR REPLACE TRIGGER "JMAURER"."EMP\_MEMBERSHIP"

AFTER INSERT ON final\_employee

REFERENCING OLD AS OLD NEW AS NEW

FOR EACH ROW

Begin

INSERT INTO final\_lib\_member

(member\_id, charges)

VALUES

(final\_employee.employee\_id, 0);

END;

/

ALTER TRIGGER "JMAURER"."EMP\_MEMBERSHIP" ENABLE;

CREATE TABLE "JMAURER"."FINAL\_LEND\_MEMBER"

( "MEMBER\_ID" VARCHAR2(20 BYTE) NOT NULL ENABLE,

"COPY\_ID" VARCHAR2(20 BYTE) NOT NULL ENABLE,

"START\_DATE" DATE,

"END\_DATE" DATE,

"LATE\_CHARGE\_ADDED" VARCHAR2(20 BYTE),

"RETURNED" VARCHAR2(1 BYTE) NOT NULL ENABLE,

CONSTRAINT "FINAL\_LEND\_MEMBER\_PK" PRIMARY KEY ("MEMBER\_ID", "COPY\_ID")

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TABLESPACE "JMAURER\_D1" ENABLE,

CONSTRAINT "FINAL\_LEND\_MEMBER\_CHK1" CHECK (returned IN ('Y','N')) ENABLE,

CONSTRAINT "FINAL\_LEND\_MEMBER\_FK1" FOREIGN KEY ("MEMBER\_ID")

REFERENCES "JMAURER"."FINAL\_LIB\_MEMBER" ("MEMBER\_ID") ENABLE,

CONSTRAINT "FINAL\_LEND\_MEMBER\_FK2" FOREIGN KEY ("COPY\_ID")

REFERENCES "JMAURER"."FINAL\_COPY" ("COPY\_ID") ENABLE

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TABLESPACE "JMAURER\_D1" ;

CREATE OR REPLACE TRIGGER "JMAURER"."TRASH" after INSERT

on final\_lend\_member

begin

update final\_lend\_member

set start\_date= getdate()

from final\_lend\_member, inserted

on final\_lend\_member.copy\_id = inserted.copy\_id

End;

/

ALTER TRIGGER "JMAURER"."TRASH" ENABLE;

CREATE OR REPLACE TRIGGER "JMAURER"."RENTALS"

AFTER INSERT ON final\_lend\_member

REFERENCING OLD AS OLD NEW AS NEW

FOR EACH ROW

WHEN (NEW.start\_date=null) BEGIN

INSERT INTO final\_lend\_member

(start\_date, end\_date)

VALUES

(SYSDATE + 1, SYSDATE + 30);

END;

/

ALTER TRIGGER "JMAURER"."RENTALS" ENABLE;

CREATE TABLE "JMAURER"."FINAL\_LIB\_MEMBER"

( "MEMBER\_ID" VARCHAR2(20 BYTE) NOT NULL ENABLE,

"CHARGES" NUMBER,

"NAME" VARCHAR2(20 BYTE),

CONSTRAINT "FINAL\_LIB\_MEMBER\_PK" PRIMARY KEY ("MEMBER\_ID")

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TABLESPACE "JMAURER\_D1" ;

CREATE TABLE "JMAURER"."FINAL\_PUBLISHER"

( "PUBLISHER\_NAME" VARCHAR2(20 BYTE) NOT NULL ENABLE,

CONSTRAINT "FINAL\_PUBLISHER\_PK" PRIMARY KEY ("PUBLISHER\_NAME")

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