CONNECT sys as sysdba;

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_tables WHERE table\_name = 'AUTHOR';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE TABLE Author (

AuthorID NUMBER PRIMARY KEY,

Name VARCHAR2(100)

)';

END IF;

END;

/

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_tables WHERE table\_name = 'BOOK';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE TABLE Book (

BookID NUMBER PRIMARY KEY,

Title VARCHAR2(200),

Publisher VARCHAR2(100),

PublicationDate DATE,

Price NUMBER(10, 2),

QuantityInStock NUMBER,

AuthorID NUMBER,

FOREIGN KEY (AuthorID) REFERENCES Author(AuthorID)

)';

END IF;

END;

/

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_tables WHERE table\_name = 'CUSTOMER';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE TABLE Customer (

CustomerID NUMBER PRIMARY KEY,

Name VARCHAR2(100),

Address VARCHAR2(200),

Email VARCHAR2(100)

)';

END IF;

END;

/

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_tables WHERE table\_name = 'ORDERS';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE TABLE Orders (

OrderID NUMBER PRIMARY KEY,

CustomerID NUMBER,

OrderDate DATE,

OrderTime TIMESTAMP,

FOREIGN KEY (CustomerID) REFERENCES Customer(CustomerID)

)';

END IF;

END;

/

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_tables WHERE table\_name = 'ORDERDETAIL';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE TABLE OrderDetail (

OrderDetailID NUMBER PRIMARY KEY,

OrderID NUMBER,

BookID NUMBER,

QuantityOrdered NUMBER,

PriceAtOrder NUMBER(10, 2),

FOREIGN KEY (OrderID) REFERENCES Orders(OrderID),

FOREIGN KEY (BookID) REFERENCES Book(BookID)

)';

END IF;

END;

/

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_indexes WHERE index\_name = 'IDX\_BOOK\_AUTHOR';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE INDEX IDX\_BOOK\_AUTHOR ON Book(AuthorID)';

END IF;

END;

/

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_indexes WHERE index\_name = 'IDX\_ORDER\_CUSTOMER';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE INDEX IDX\_ORDER\_CUSTOMER ON Orders(CustomerID)';

END IF;

END;

/

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_indexes WHERE index\_name = 'IDX\_ORDERDETAIL\_BOOK';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE INDEX IDX\_ORDERDETAIL\_BOOK ON OrderDetail(BookID)';

END IF;

END;

/

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_indexes WHERE index\_name = 'IDX\_ORDERDETAIL\_ORDER';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE INDEX IDX\_ORDERDETAIL\_ORDER ON OrderDetail(OrderID)';

END IF;

END;

/

COMMIT;

DECLARE

v\_count NUMBER;

BEGIN

SELECT COUNT(\*) INTO v\_count FROM user\_views WHERE view\_name = 'ORDER\_DETAILS\_VIEW';

IF v\_count = 0 THEN

EXECUTE IMMEDIATE 'CREATE VIEW Order\_Details\_View AS

SELECT o.OrderID, o.OrderDate, o.OrderTime, c.Name AS CustomerName, c.Email, od.BookID, b.Title, od.QuantityOrdered, od.PriceAtOrder

FROM Orders o

JOIN Customer c ON o.CustomerID = c.CustomerID

JOIN OrderDetail od ON o.OrderID = od.OrderID

JOIN Book b ON od.BookID = b.BookID';

END IF;

END;

/

COMMIT;