SQL> CREATE TABLE users (

2 user\_id NUMBER PRIMARY KEY,

3 username VARCHAR2(50) UNIQUE NOT NULL,

4 password VARCHAR2(100) NOT NULL,

5 email VARCHAR2(100),

6 role VARCHAR2(20) CHECK (role IN ('admin', 'buyer', 'seller')),

7 first\_name VARCHAR2(50),

8 last\_name VARCHAR2(50),

9 created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

10 updated\_at TIMESTAMP

11 );

Table created.

SQL> CREATE SEQUENCE user\_seq START WITH 1 INCREMENT BY 1 NOCACHE;

Sequence created.

SQL> CREATE OR REPLACE TRIGGER trg\_user\_id

2 BEFORE INSERT ON users

3 FOR EACH ROW

4 BEGIN

5 IF :new.user\_id IS NULL THEN

6 SELECT user\_seq.NEXTVAL INTO :new.user\_id FROM dual;

7 END IF;

8 END;

9 /

Trigger created.

SQL> CREATE TABLE products (

2 product\_id NUMBER PRIMARY KEY,

3 seller\_id NUMBER,

4 product\_name VARCHAR2(100),

5 category VARCHAR2(50),

6 description VARCHAR2(500),

7 start\_time TIMESTAMP,

8 end\_time TIMESTAMP,

9 highest\_bid NUMBER(10,2) DEFAULT 0,

10 highest\_bidder NUMBER,

11 status VARCHAR2(20),

12 created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

13 updated\_at TIMESTAMP,

14 FOREIGN KEY (seller\_id) REFERENCES users(user\_id),

15 FOREIGN KEY (highest\_bidder) REFERENCES users(user\_id)

16 );

Table created.

SQL> CREATE SEQUENCE product\_seq START WITH 1 INCREMENT BY 1 NOCACHE;

Sequence created.

SQL> CREATE OR REPLACE TRIGGER trg\_product\_id

2 BEFORE INSERT ON products

3 FOR EACH ROW

4 BEGIN

5 IF :new.product\_id IS NULL THEN

6 SELECT product\_seq.NEXTVAL INTO :new.product\_id FROM dual;

7 END IF;

8 END;

9 /

Trigger created.

SQL> CREATE TABLE bids (

2 bid\_id NUMBER PRIMARY KEY,

3 product\_id NUMBER,

4 buyer\_id NUMBER,

5 bid\_amount NUMBER(10,2),

6 bid\_time TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

7 status VARCHAR2(20),

8 FOREIGN KEY (product\_id) REFERENCES products(product\_id),

9 FOREIGN KEY (buyer\_id) REFERENCES users(user\_id)

10 );

Table created.

SQL> CREATE SEQUENCE bid\_seq START WITH 1 INCREMENT BY 1 NOCACHE;

Sequence created.

SQL>

SQL> CREATE OR REPLACE TRIGGER trg\_bid\_id

2 BEFORE INSERT ON bids

3 FOR EACH ROW

4 BEGIN

5 IF :new.bid\_id IS NULL THEN

6 SELECT bid\_seq.NEXTVAL INTO :new.bid\_id FROM dual;

7 END IF;

8 END;

9 /

Trigger created.

SQL> INSERT INTO users (user\_id, username, password, email, role, first\_name, last\_name, created\_at) VALUES (1, 'rahul123', 'rahul@123', 'rahul@gmail.com', 'buyer', 'Rahul', 'Sharma', SYSDATE);

1 row created.

SQL> INSERT INTO users (user\_id, username, password, email, role, first\_name, last\_name, created\_at) VALUES (2, 'anita\_k', 'anita@456', 'anita@yahoo.com', 'seller', 'Anita', 'Kumar', SYSDATE);

1 row created.

SQL> INSERT INTO users (user\_id, username, password, email, role, first\_name, last\_name, created\_at) VALUES (3, 'vishal\_89', 'vishal@789', 'vishal@hotmail.com', 'buyer', 'Vishal', 'Reddy', SYSDATE);

1 row created.

SQL> INSERT INTO users (user\_id, username, password, email, role, first\_name, last\_name, created\_at) VALUES (4, 'neha\_gupta', 'neha@321', 'neha@gmail.com', 'seller', 'Neha', 'Gupta', SYSDATE);

1 row created.

SQL> INSERT INTO users (user\_id, username, password, email, role, first\_name, last\_name, created\_at) VALUES (5, 'admin1', 'admin@123', 'admin@site.com', 'admin', 'System', 'Admin', SYSDATE);

1 row created.

SQL> INSERT INTO products (product\_id, seller\_id, product\_name, category, description, start\_time, end\_time, status) VALUES (1, 2, 'iPhone 13', 'Electronics', 'Apple smartphone with 128GB storage', SYSTIMESTAMP, SYSTIMESTAMP + 1, 'active');

1 row created.

SQL> INSERT INTO products (product\_id, seller\_id, product\_name, category, description, start\_time, end\_time, status) VALUES (2, 4, 'Wooden Dining Table', 'Furniture', '6-seater dining table made of teak wood', SYSTIMESTAMP, SYSTIMESTAMP + 2, 'active');

1 row created.

SQL> INSERT INTO products (product\_id, seller\_id, product\_name, category, description, start\_time, end\_time, status) VALUES (3, 2, 'Samsung LED TV', 'Electronics', '42-inch smart LED TV', SYSTIMESTAMP, SYSTIMESTAMP + 1, 'active');

1 row created.

SQL> INSERT INTO products (product\_id, seller\_id, product\_name, category, description, start\_time, end\_time, status) VALUES (4, 4, 'Nike Running Shoes', 'Footwear', 'Size 9 black sports shoes', SYSTIMESTAMP, SYSTIMESTAMP + 3, 'active');

1 row created.

SQL> INSERT INTO products (product\_id, seller\_id, product\_name, category, description, start\_time, end\_time, status) VALUES (5, 2, 'Dell Laptop', 'Electronics', 'i5 10th Gen, 8GB RAM, 512GB SSD', SYSTIMESTAMP, SYSTIMESTAMP + 1, 'active');

1 row created.

SQL> INSERT INTO bids (bid\_id, product\_id, buyer\_id, bid\_amount, bid\_time, status) VALUES (1, 1, 1, 62000, SYSTIMESTAMP, 'active');

1 row created.

SQL> INSERT INTO bids (bid\_id, product\_id, buyer\_id, bid\_amount, bid\_time, status) VALUES (2, 1, 3, 63000, SYSTIMESTAMP, 'active');

1 row created.

SQL> INSERT INTO bids (bid\_id, product\_id, buyer\_id, bid\_amount, bid\_time, status) VALUES (3, 2, 1, 15000, SYSTIMESTAMP, 'active');

1 row created.

SQL> INSERT INTO bids (bid\_id, product\_id, buyer\_id, bid\_amount, bid\_time, status) VALUES (4, 3, 3, 25000, SYSTIMESTAMP, 'active');

1 row created.

SQL> INSERT INTO bids (bid\_id, product\_id, buyer\_id, bid\_amount, bid\_time, status) VALUES (5, 4, 1, 4500, SYSTIMESTAMP, 'active');

1 row created.

SQL> Commit;

Commit complete.

SQL> Spool off;