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## PL/SQL ASSIGNMENT

### BOOK MANAGEMENT SYSTEM PROJECT

#### 1. CREATING TABLE BOOK

```
CREATE TABLE book (
    book_id    NUMBER PRIMARY KEY,
    title      VARCHAR2(200),
    author     VARCHAR2(100),
    price      NUMBER
);
```

#### 2. INSERT VALUES INTO TABLE BOOK

```
INSERT INTO book VALUES (1, 'Oracle SQL Basics', 'Alice M', 450);
INSERT INTO book VALUES (2, 'PL/SQL Mastery', 'John K', 700);
INSERT INTO book VALUES (3, 'Database Design', 'Chris R', 1200);
INSERT INTO book VALUES (4, 'Data Structures', 'David S', 300);
INSERT INTO book VALUES (5, 'Advanced Algorithms', 'Martha T', 1500);
```

```
COMMIT;
```

#### 3. PL/SQL PROGRAM (Collections + Records)

```
SET SERVEROUTPUT ON;
```

```
DECLARE
```

```
TYPE book_table_type IS TABLE OF book%ROWTYPE;
book_list book_table_type;
```

```
TYPE book_summary_rec IS RECORD (
    total_books NUMBER,
    avg_price  NUMBER,
    high_price NUMBER
);
```

```
summary book_summary_rec;
```

```

b book%ROWTYPE;
price_sum NUMBER := 0;

BEGIN

    SELECT * BULK COLLECT INTO book_list FROM book;

    DBMS_OUTPUT.PUT_LINE('Loaded ' || book_list.COUNT || ' book records.');

    summary.total_books := book_list.COUNT;
    summary.high_price := 0;

    FOR i IN 1 .. book_list.COUNT LOOP
        b := book_list(i);

        price_sum := price_sum + b.price;

        IF b.price > summary.high_price THEN
            summary.high_price := b.price;
        END IF;

        IF b.price > 1000 THEN
            GOTO expensive_book;
        END IF;
    END LOOP;

    summary.avg_price := price_sum / summary.total_books;

    DBMS_OUTPUT.PUT_LINE('----- BOOK SUMMARY -----');
    DBMS_OUTPUT.PUT_LINE('Total Books: ' || summary.total_books);
    DBMS_OUTPUT.PUT_LINE('Average Price: ' || summary.avg_price);
    DBMS_OUTPUT.PUT_LINE('Highest Price: ' || summary.high_price);

    RETURN;

<<expensive_book>>

```

```
DBMS_OUTPUT.PUT_LINE('*** EXPENSIVE BOOK DETECTED ***');
DBMS_OUTPUT.PUT_LINE('A book priced above 1000 was found.');
DBMS_OUTPUT.PUT_LINE('Triggering price review process...');

END;
/
```