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```
CREATE TABLE Inventory (
   ProductID INT GENERATED BY DEFAULT AS IDENTITY PRIMARY KEY,
   ProductName VARCHAR2(100) NOT NULL,
   Category VARCHAR2(50) NOT NULL,
   Quantity INT NOT NULL,
   PricePerUnit DECIMAL(10, 2) NOT NULL
);
```

Part 1 :

For Loop :

```
DECLARE
   v_ProductID NUMBER;
   v_Quantity NUMBER;
BEGIN

   v_ProductID := &Enter_ProductID;


   SELECT Quantity INTO v_Quantity
   FROM Inventory
   WHERE ProductID = v_ProductID;

   IF v_Quantity < 5 THEN
```

```
    DBMS_OUTPUT.PUT_LINE('Low in Stock');
  ELSIF v_Quantity BETWEEN 5 AND 20 THEN
    DBMS_OUTPUT.PUT_LINE('Sufficient in Stock');
  ELSE
    DBMS_OUTPUT.PUT_LINE('High in Stock');
  END IF;
END;
```

Case :

```
DECLARE
  v_ProductID NUMBER;
  v_Quantity NUMBER;
  v_Message VARCHAR2(30);
BEGIN

  v_ProductID := &Enter_ProductID;


  SELECT Quantity INTO v_Quantity
  FROM Inventory
  WHERE ProductID = v_ProductID;


  v_Message := CASE
            WHEN v_Quantity < 5 THEN 'Low in Stock'
```

```
            WHEN v_Quantity BETWEEN 5 AND 20 THEN 'Sufficient in Stock'
            ELSE 'High in Stock'
        END;

    DBMS_OUTPUT.PUT_LINE(v_Message);
END;
```

Result :

```
Low in Stock

PL/SQL procedure successfully completed.
```

```
High in Stock

PL/SQL procedure successfully completed.
```

```
Sufficient in Stock

PL/SQL procedure successfully completed.
```

Part 2 :

```
DECLARE
    v_ProductName VARCHAR2(50);
    v_Category VARCHAR2(50);
    v_Quantity NUMBER;
    v_PricePerUnit NUMBER;
    v_Counter NUMBER := 1;
```

```
BEGIN

   v_ProductName := '&Enter_ProductName';

   v_Category := '&Enter_Category';

   v_Quantity := &Enter_Quantity;

   v_PricePerUnit := &Enter_PricePerUnit;



   WHILE v_Counter <= 10 LOOP

      INSERT INTO Inventory (ProductName, Category, Quantity, PricePerUnit)

      VALUES (v_ProductName, v_Category, v_Quantity, v_PricePerUnit);


      DBMS_OUTPUT.PUT_LINE('Product ' || v_ProductName || ' has been added successfully.');


      v_Counter := v_Counter + 1;

   END LOOP;

END;
```

Result :

	PRODUCTID	PRODUCTNAME	CATEGORY	QUANTITY	PRICEPERUNIT
1	1	Laptop	Electronics	10	750
2	2	Smartphone	Electronics	25	500
3	3	Book	Books	50	15
4	4	Chair	Furniture	7	100
5	5	Headphones	Accessories	3	30
6	6	Tablet	Electronics	15	300
7	7	Monitor	Electronics	12	200
8	8	Desk	Furniture	5	150
9	9	Mouse	Accessories	20	25
10	10	Coffee Maker	Appliances	8	85

Part 3 :

```
CREATE OR REPLACE FUNCTION CalculateInventoryValue (p_ProductID NUMBER)
RETURN NUMBER
IS
   v_TotalValue NUMBER;
BEGIN

   SELECT Quantity * PricePerUnit
   INTO v_TotalValue
   FROM Inventory
   WHERE ProductID = p_ProductID;

   RETURN v_TotalValue;
EXCEPTION
   WHEN NO_DATA_FOUND THEN
      DBMS_OUTPUT.PUT_LINE('Product ID not found.');
      RETURN NULL;
END CalculateInventoryValue;

SET SERVEROUTPUT ON;

DECLARE
   v_ProductValue NUMBER;
BEGIN
   v_ProductValue := CalculateInventoryValue(1);
```

```
    DBMS_OUTPUT.PUT_LINE('Total inventory value for the product: ' || v_ProductValue);
END;
```

Result :

```
Total inventory value for the product: 7500

PL/SQL procedure successfully completed.
```