```
CREATE OR REPLACE PACKAGE paquete_modificacion AS
 PROCEDURE sp_insert_product (
    categoria VARCHAR2,
    I name
              VARCHAR2,
    I_descripcion VARCHAR2,
            NUMBER,
    precio
             NUMBER
    pyme
 );
 PROCEDURE create_order (
    id_cliente NUMBER
 );
 PROCEDURE create_line (
    orden NUMBER,
    nombre VARCHAR2,
    cantidad NUMBER
 );
 PROCEDURE sp_cancel_order (
    order_id NUMBER
 );
 PROCEDURE sp_edit_product (
    product NUMBER,
    n_desc VARCHAR2,
    n_mont NUMBER,
    opc
        NUMBER
 );
END paquete_modificacion;
CREATE OR REPLACE PACKAGE BODY paquete_modificacion AS
 PROCEDURE sp_insert_product (
    categoria VARCHAR2,
    I_name
              VARCHAR2,
    I_descripcion VARCHAR2,
    precio
             NUMBER,
             NUMBER
    pyme
 ) AS
    cat_id NUMBER;
    aux NUMBER;
  BEGIN
    SELECT
      COUNT(*)
    INTO aux
    FROM
      categoria ct
    WHERE
      ct.nombre_categoria = categoria;
    IF aux = 0 THEN
      INSERT INTO categoria ( nombre_categoria ) VALUES ( categoria );
      SELECT
        ct.categoria_id
      INTO cat_id
      FROM
        categoria ct
      WHERE
        ct.nombre_categoria = categoria;
    ELSE
      SELECT
```

```
ct.categoria_id
    INTO cat_id
    FROM
       categoria ct
    WHERE
       ct.nombre_categoria = categoria;
  END IF;
  INSERT INTO producto (
    nombre_producto,
    descripcion,
    precio_unitario,
    categoria_id,
    pyme_id
  ) VALUES (
    I_name,
    I_descripcion,
    precio,
    cat_id,
    pyme
  );
END sp_insert_product;
PROCEDURE create_order (
  id_cliente NUMBER
) AS
  fecha DATE;
BEGIN
  INSERT INTO orden (
    monto_total,
    estado,
    fecha_orden,
    cliente_id
  ) VALUES (
    0,
    1,
    current_date,
    id_cliente
  );
END create_order;
PROCEDURE create_line (
  orden NUMBER,
  nombre VARCHAR2,
  cantidad NUMBER
) AS
  cash NUMBER(10, 2);
  product NUMBER;
BEGIN
  SELECT
    search_product(nombre)
  INTO product
  FROM
    dual;
  IF product != 0 THEN
    SELECT
       ( pr.precio_unitario * cantidad )
    INTO cash
    FROM
       producto pr
    WHERE
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product = pr.producto_id;
    INSERT INTO linea_de_producto (
      cantidad.
      monto,
      orden_id,
      producto_id
    ) VALUES (
      cantidad,
      cash,
      orden,
      product
    );
  END IF;
END create_line;
PROCEDURE sp_cancel_order (
  order_id NUMBER
) AS
BEGIN
  UPDATE orden od
  SET
    estado = 0
  WHERE
    order_id = od.orden_id;
END sp_cancel_order;
PROCEDURE sp_edit_product (
  product NUMBER,
  n_desc VARCHAR2,
  n_mont NUMBER,
       NUMBER
) AS
  old_mont NUMBER;
BEGIN
  IF opc = 1 THEN
    UPDATE producto pr
    SET
      nombre_producto = n_desc
    WHERE
      product = pr.producto_id;
  END IF;
  IF opc = 2 THEN
    UPDATE producto pr
       descripcion = n_desc
    WHERE
      product = pr.producto_id;
  END IF;
  IF opc = 3 THEN
    UPDATE producto pr
    SET
       pr.precio_unitario = n_mont
    WHERE
      product = pr.producto_id;
  END IF;
```

```
END sp_edit_product;
END paquete_modificacion;
CREATE OR REPLACE PACKAGE paquete_consulta AS
 FUNCTION search_product (
    descp VARCHAR2
 ) RETURN NUMBER;
 FUNCTION fc_valid_cliente (
    new_cedula
                   VARCHAR2,
    new_apodo
                   VARCHAR2,
    new_telefono_cliente VARCHAR2
 ) RETURN NUMBER;
 FUNCTION fc_valid_pyme (
    new_cedula
                VARCHAR2,
                  VARCHAR2,
    new_email
   new telefono cliente VARCHAR2
 ) RETURN NUMBER;
 FUNCTION fc_cliente_login (
    ident VARCHAR2,
    pass VARCHAR2
 ) RETURN NUMBER;
 FUNCTION fc_pyme_login (
   ident VARCHAR2,
   pass VARCHAR2
 ) RETURN NUMBER;
 PROCEDURE sp_select_orders (
    cliente NUMBER,
    condition NUMBER
 );
 PROCEDURE sp_view_sales (
    pyme NUMBER,
    mes NUMBER
 );
END paquete_consulta;
CREATE OR REPLACE PACKAGE BODY paquete_consulta AS
 FUNCTION search_product (
    descp VARCHAR2
 ) RETURN NUMBER IS
   aux NUMBER;
   pr_id NUMBER;
 BEGIN
    SELECT
      COUNT(*)
    INTO aux
    FROM
      producto pr
    WHERE
      descp = pr.nombre_producto
      OR pr.descripcion LIKE concat('%', concat(descp, '%'));
    IF aux > 1 THEN
      RETURN 0;
    END IF;
```

```
IF aux = 1 THEN
    SELECT
      producto_id
    INTO pr_id
    FROM
      producto pr
    WHERE
      descp = pr.nombre_producto
      OR pr.descripcion LIKE concat('%', concat(descp, '%'));
    RETURN pr_id;
  END IF;
  RETURN 0;
END search_product;
FUNCTION fc_valid_cliente (
  new_cedula
                  VARCHAR2,
                  VARCHAR2,
  new_apodo
  new_telefono_cliente VARCHAR2
) RETURN NUMBER IS
  apodex NUMBER;
  cedulex NUMBER;
  numberx NUMBER;
BEGIN
  SELECT
    COUNT(*)
  INTO apodex
  FROM
    cliente
  WHERE
    new_apodo = apodo;
  SELECT
    COUNT(*)
  INTO cedulex
  FROM
    cliente
  WHERE
    new_cedula = cedula;
  SELECT
    COUNT(*)
  INTO numberx
  FROM
    cliente
  WHERE
    new_telefono_cliente = telefono_cliente;
  IF
    apodex = 0
    AND cedulex = 0
    AND numberx = 0
  THEN
    RETURN 0;
  ELSE
    IF apodex != 0 THEN
      RETURN 1;
    END IF:
    IF cedulex != 0 THEN
      RETURN 2:
    END IF;
    IF numberx != 0 THEN
      RETURN 3:
    END IF;
```

```
END IF;
END fc_valid_cliente;
FUNCTION fc_valid_pyme (
  new_cedula
                 VARCHAR2,
                 VARCHAR2,
  new_email
  new_telefono_cliente VARCHAR2
) RETURN NUMBER IS
  emailex NUMBER;
  cedulex NUMBER;
  numberx NUMBER;
BEGIN
  SELECT
    COUNT(*)
  INTO emailex
  FROM
    pyme
  WHERE
    new_email = email;
  SELECT
    COUNT(*)
  INTO cedulex
  FROM
    pyme
  WHERE
    new_cedula = cedula_juridica;
  SELECT
    COUNT(*)
  INTO numberx
  FROM
    pyme
  WHERE
    new_telefono_cliente = telefono_pyme;
  IF
    emailex = 0
    AND cedulex = 0
    AND numberx = 0
  THEN
    RETURN 0;
  ELSE
    IF emailex != 0 THEN
      RETURN 1;
    END IF:
    IF cedulex != 0 THEN
      RETURN 2;
    END IF;
    IF numberx != 0 THEN
      RETURN 3;
    END IF;
  END IF;
END fc_valid_pyme;
FUNCTION fc_cliente_login (
  ident VARCHAR2,
  pass VARCHAR2
) RETURN NUMBER IS
  resultado NUMBER;
        NUMBER;
  c_id
  new_pass BLOB;
BEGIN
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new_pass := to_blob(utl_raw.cast_to_raw(pass));
  SELECT
    COUNT(*)
  INTO resultado
  FROM
    cliente cl
  WHERE
    (ident = cl.apodo
      OR ident = cl.telefono_cliente
      OR ident = cl.cedula)
    AND dbms_lob.compare(new_pass, cl.contraseña) = 0;
  IF resultado = 1 THEN
    SELECT
       cliente id
    INTO c id
    FROM
       cliente cl
    WHERE
      ( ident = cl.apodo
        OR ident = cl.telefono_cliente
        OR ident = cl.cedula)
       AND dbms_lob.compare(new_pass, cl.contraseña) = 0;
    RETURN c_id;
  END IF;
  RETURN 0;
END fc_cliente_login;
FUNCTION fc_pyme_login (
  ident VARCHAR2,
  pass VARCHAR2
) RETURN NUMBER IS
  resultado NUMBER;
  p id
         NUMBER;
  new_pass BLOB;
  new_pass := to_blob(utl_raw.cast_to_raw(pass));
  SELECT
    COUNT(*)
  INTO resultado
  FROM
    pyme py
  WHERE
    ( ident = py.cedula_juridica
      OR ident = py.telefono_pyme
      OR ident = py.email)
    AND dbms_lob.compare(new_pass, py.clave) = 0;
  IF resultado = 1 THEN
    SELECT
       pyme_id
    INTO p_id
    FROM
       pyme py
    WHERE
      ( ident = py.cedula_juridica
        OR ident = py.telefono_pyme
        OR ident = py.email )
       AND dbms_lob.compare(new_pass, py.clave) = 0;
    RETURN p_id;
  END IF;
```

```
RETURN 0;
END fc_pyme_login;
PROCEDURE sp_select_orders (
  cliente NUMBER,
  condition NUMBER
) AS
  c1 SYS_REFCURSOR;
BEGIN
  IF condition = 0 THEN
    OPEN c1 FOR SELECT
             concat('Orden#', ord.orden_id) orden,
                                    monto,
             ord.monto_total
             ord.fecha_orden
                                     fecha,
             estado
           FROM
             orden ord
           WHERE
             ord.cliente_id = cliente;
    dbms_sql.return_result(c1);
  END IF;
  IF condition = 1 THEN
    OPEN c1 FOR SELECT
             concat('Orden#', ord.orden_id) orden,
             ord.monto_total
                                    monto,
             ord.fecha orden
                                    fecha,
             estado
           FROM
             orden ord
           WHERE
               ord.cliente_id = cliente
             AND ord.estado = 0;
    dbms_sql.return_result(c1);
  END IF:
  IF condition = 2 THEN
    OPEN c1 FOR SELECT
             concat('Orden#', ord.orden_id) orden,
             ord.monto total
                                    monto,
             ord.fecha orden
                                    fecha,
             estado
           FROM
             orden ord
           WHERE
               ord.cliente_id = cliente
             AND ord.estado = 1;
    dbms_sql.return_result(c1);
  END IF;
END sp_select_orders;
PROCEDURE sp_view_sales (
  pyme NUMBER,
  mes NUMBER
) AS
              SYS_REFCURSOR;
  с1
  articulos_vendidos NUMBER;
  pmonto_total
                 NUMBER;
                  VARCHAR2(55);
  name_prod
  mesesito
                NUMBER;
```

```
BEGIN
    OPEN c1 FOR SELECT
             pr.nombre_producto
                                         porducto,
             SUM(cantidad)
                                      cantidad,
             SUM(pr.precio_unitario * cantidad) montototal,
           INTO
             name_prod,
             articulos_vendidos,
             pmonto_total,
             mesesito
           FROM
                linea_de_producto ldp
             INNER JOIN producto pr ON ldp.producto_id = pr.producto_id
             INNER JOIN orden ord ON ldp.orden_id = ord.orden_id
           WHERE
               pr.pyme_id = pyme
             AND mes = EXTRACT(MONTH FROM ord.fecha_orden)
             AND ord.estado = 1
           GROUP BY
             pr.nombre_producto;
    dbms_sql.return_result(c1);
  END sp_view_sales;
END paquete_consulta;
```