**Procedimientos almacenados**

1. **Insertar un usuario**

create or replace procedure INSERT\_CRUD\_CLIENTES

--Se declaran las variables de entrada--

(FECHABv IN DATE,V\_DUI\_CLI IN VARCHAR,V\_NOMBRE IN VARCHAR2,V\_APELL\_1 IN VARCHAR2,

V\_APELL\_2 IN VARCHAR2,V\_TIP\_DOC IN VARCHAR2,V\_F\_ALTA IN DATE,V\_F\_BAJA IN DATE, V\_EMAIL IN VARCHAR2,

V\_TIP\_CLI IN VARCHAR2,V\_ESTADO IN VARCHAR2)

IS

err\_num NUMBER; -- er\* son variables para capturar los errores de Oracle.

err\_msg VARCHAR2(100);

RUNFLAG NUMBER := 1; -- Bandera para identificar que el proceso

USERNAME VARCHAR2(100):= NULL;

begin

--Se valida que el cliente exista en la tabla clientes---

SELECT COUNT(\*) INTO RUNFLAG FROM CLIENTES E

WHERE E.DUI\_CLI = V\_DUI\_CLI;

-- En esta consulta se obtiene el usuario actual conectado en esta sesion de la base de datos--

select sys\_context( 'userenv', 'CURRENT\_USER' ) into USERNAME from dual;

-- Si no existe el cliente lo registra en la tabla--

IF RUNFLAG = 0 THEN

**INSERT INTO CLIENTES**

**VALUES (V\_DUI\_CLI**

**,V\_NOMBRE,**

**V\_APELL\_1,**

**V\_APELL\_2,**

**V\_TIP\_DOC,**

**V\_F\_ALTA,**

**V\_F\_BAJA,**

**V\_EMAIL,**

**V\_TIP\_CLI,**

**V\_ESTADO );**

-- se actualiza la tabla de eventos.

INSERT INTO EVENTOS\_LOG

VALUES ('CRUD CLIENTES'

,'INSERT\_CRUD\_CLIENTES'

,0

,NULL

,FECHABv,

USERNAME);

dbms\_output.put\_line('INSERT\_CRUD\_CLIENTES , termino bien.');

ELSE

dbms\_output.put\_line('Este cliente ya ha existe en la base de datos.');

END IF;

-- Captura todas las excepciones del procedimiento por ejemplo errores de ejecucion ---

EXCEPTION -- exception handlers begin

WHEN OTHERS

THEN -- handles all other errors

err\_num := SQLCODE;

err\_msg := SUBSTR (SQLERRM, 1, 100);

ROLLBACK;

INSERT INTO EVENTOS\_LOG

VALUES ('CRUD CLIENTES'

,'INSERT\_CRUD\_CLIENTES'

,1

,err\_num || ':' || err\_msg

,FECHABv,

USERNAME);

end INSERT\_CRUD\_CLIENTES;

1. **Modificar un usuario y dar de baja**

create or replace PROCEDURE BAJA\_USUARIOS(p\_userid IN USUARIOS.USUARIO%TYPE)

IS

err\_num NUMBER; -- er\* son variables para capturara los errores de Oracle.

err\_msg VARCHAR2(100);

RUNFLAG NUMBER := 1; -- Bandera para identificar que el proceso no se ha ejecutado satisfactoriamente con anterioridad

FECHABv DATE := SYSDATE;

USERNAME VARCHAR2(100):= NULL;

BEGIN

SELECT COUNT(\*) INTO RUNFLAG FROM USUARIOS U

WHERE U.USUARIO = p\_userid;

select sys\_context( 'userenv', 'CURRENT\_USER' ) into USERNAME from dual;

**IF RUNFLAG = 1 THEN**

**UPDATE USUARIOS U SET**

**(F\_BAJA,ESTADO) =**

**(**

**SELECT SYSDATE AS F\_BAJA,'BAJA' AS ESTADO FROM DUAL**

**)**

**where USUARIO = p\_userid;**

**COMMIT;**

-- se acutaliza la tabla de eventos.

-- se acutaliza la tabla de eventos.

INSERT INTO EVENTOS\_LOG

VALUES ('BAJA USUARIOS'

,'BAJA USUARIOS'

,0

,NULL

,FECHABv,

USERNAME);

dbms\_output.put\_line('El usuario se ha dado de baja en la base de datos.');

ELSE

dbms\_output.put\_line('El usuario no existe en la base de datos, se omitira el proceso.');

END IF;

EXCEPTION -- exception handlers begin

WHEN OTHERS

THEN -- handles all other errors

err\_num := SQLCODE;

err\_msg := SUBSTR (SQLERRM, 1, 100);

ROLLBACK;

INSERT INTO EVENTOS\_LOG

VALUES ('BAJA USUARIOS'

,'BAJA USUARIOS'

,1

,err\_num || ':' || err\_msg

,FECHABv,

USERNAME);

END;

1. **Elimina a un usuario**

create or replace PROCEDURE deleteUSUARIOS(p\_userid IN USUARIOS.USUARIO%TYPE)

IS

err\_num NUMBER; -- er\* son variables para capturara los errores de Oracle.

err\_msg VARCHAR2(100);

RUNFLAG NUMBER := 1; -- Bandera para identificar que el proceso no se ha ejecutado satisfactoriamente con anterioridad

FECHABv DATE := SYSDATE;

USERNAME VARCHAR2(100):= NULL;

BEGIN

SELECT COUNT(\*) INTO RUNFLAG FROM USUARIOS U

WHERE U.USUARIO = p\_userid;

select sys\_context( 'userenv', 'CURRENT\_USER' ) into USERNAME from dual;

IF RUNFLAG = 1 THEN

**DELETE USUARIOS where USUARIO = p\_userid;**

COMMIT;

-- se acutaliza la tabla de eventos.

-- se acutaliza la tabla de eventos.

INSERT INTO EVENTOS\_LOG

VALUES ('DELETE USUARIOS'

,'DELETE USUARIOS'

,0

,NULL

,FECHABv,

USERNAME);

dbms\_output.put\_line('El usuario ha sido eliminado de la base de datos.');

ELSE

dbms\_output.put\_line('El usuario no existe en la base de datos, se omitira el proceso.');

END IF;

EXCEPTION -- exception handlers begin

WHEN OTHERS

THEN -- handles all other errors

err\_num := SQLCODE;

err\_msg := SUBSTR (SQLERRM, 1, 100);

ROLLBACK;

INSERT INTO EVENTOS\_LOG

VALUES ('CRUD CLIENTES'

,'INSERT\_CRUD\_CLIENTES'

,1

,err\_num || ':' || err\_msg

,FECHABv,

USERNAME);

END;

**Disparadores**

1. **No eliminar clientes**

create or replace TRIGGER NO\_ELIMINAR\_CLIENTES

BEFORE DELETE ON CLIENTES

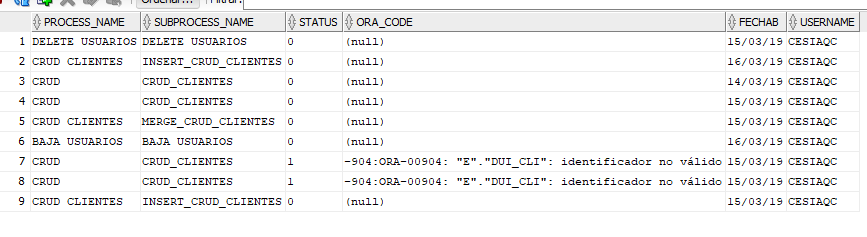
BEGIN

raise\_application\_error(-20001,'Lo siento no puede eliminar datos de esta tabla');

END;

**Trazabilidad de la información en la base de datos.**

Se creó una tabla para registrar todos los eventos de los procedimientos.



**Catalogo de tablas**

|  |  |
| --- | --- |
| Table Name | CLIENTES |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | DUI\_CLI | P |  | Y | VARCHAR (12) | LT |  |  |  |  |
| 2 | NOMBRE |  |  |  | VARCHAR (120) | LT |  |  |  |  |
| 3 | APELL\_1 |  |  |  | VARCHAR (120) | LT |  |  |  |  |
| 4 | APELL\_2 |  |  |  | VARCHAR (120) | LT |  |  |  |  |
| 5 | TIP\_DOC |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 6 | F\_ALTA |  |  |  | Date | LT |  |  |  |  |
| 7 | F\_BAJA |  |  |  | Date | LT |  |  |  |  |
| 8 | EMAIL |  |  |  | CHAR (30) | LT |  |  |  |  |
| 9 | TIP\_CLI |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 10 | ESTADO |  |  |  | VARCHAR (4) | LT |  |  |  |  |

Columns Comments

| No | Column Name | Description | Notes |
| --- | --- | --- | --- |
| 1 | DUI\_CLI | NUMERO UNICO DOCUMENTO DE IDENTIDAD |  |
| 2 | NOMBRE | Nombres del cliente |  |
| 9 | TIP\_CLI | Tipo de cliente si es normal o VIP |  |
| 10 | ESTADO | Situacion del cliente Alta o Baja |  |

Foreign Keys (referred from)

| Name | Referred From | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CLI\_FK | VENTA | Y | Y |  | DUI\_CLI | DUI\_CLI | CASCADE |
| OS\_CLI\_FK | ORDENES | Y | Y |  | DUI\_CLI | DUI\_CLI |  |
| TEL\_CLI\_FK | TELEFONOS | Y | Y |  | DUI\_CLI | DUI\_CLI | CASCADE |

|  |  |
| --- | --- |
| Table Name | COMPRAS |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | CP\_ID | P |  | Y | NUMERIC | LT |  |  |  |  |
| 2 | PED\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 3 | PROV\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 4 | F\_FACT |  |  |  | Date | LT |  |  |  |  |
| 5 | IVA |  |  |  | NUMERIC | LT |  |  |  |  |
| 6 | SUBTOTAL |  |  |  | NUMERIC | LT |  |  |  |  |
| 7 | USUARIO |  |  |  | VARCHAR (12) | LT |  |  |  |  |
| 8 | ESTADO |  |  |  | VARCHAR (4) | LT |  |  |  |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PROV\_FK | PROVEEDORES | Y | Y |  | PROV\_ID | PROV\_ID | CASCADE |
| PED\_CP\_FK | PEDIDOS\_COMPRA | Y | Y |  | PED\_ID | PED\_ID | CASCADE |

Foreign Keys (referred from)

| Name | Referred From | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CP\_FK | COMPRAS\_DETALLE | Y | Y |  | CP\_ID | CP\_ID | CASCADE |

|  |  |
| --- | --- |
| Table Name | COMPRAS\_DETALLE |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | CPD\_ID | P |  | Y | NUMERIC | LT |  |  |  |  |
| 2 | CP\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 3 | CANTIDAD |  |  |  | Integer | LT |  |  |  |  |
| 4 | TOTAL\_IMPORTE |  |  |  | DOUBLE | LT |  |  |  |  |
| 5 | PROD\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PROD\_FKv4 | PRODUCTOS | Y | Y |  | PROD\_ID | PROD\_ID | CASCADE |
| CP\_FK | COMPRAS | Y | Y |  | CP\_ID | CP\_ID | CASCADE |

|  |  |
| --- | --- |
| Table Name | EQUIPOS\_OS |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | EQ\_ID | P |  | Y | NUMERIC | LT |  |  |  |  |
| 2 | NUM\_OS |  | F | Y | NUMERIC | LT |  |  |  |  |
| 3 | F\_INGRESO |  |  |  | Date | LT |  |  |  |  |
| 4 | TIP\_EQUIPO |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 5 | SERIE |  |  |  | VARCHAR (60) | LT |  |  |  |  |
| 6 | COD\_MARCA |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 7 | OBSERVACIONES |  |  |  | VARCHAR (500) | LT |  |  |  |  |
| 8 | ESTADO |  |  |  | VARCHAR (4) | LT |  |  |  |  |

Columns Comments

| No | Column Name | Description | Notes |
| --- | --- | --- | --- |
| 2 | NUM\_OS | Se relaciona con la OS del trabajo |  |
| 7 | OBSERVACIONES | Comentarios adicionales sobre el equipo ingresado |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| OS\_FK | ORDENES | Y | Y |  | NUM\_OS | NUM\_OS | CASCADE |

Foreign Keys (referred from)

| Name | Referred From | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| OS\_DET\_EQ\_FK | ORDENES\_DETALLE | Y | Y |  | EQ\_ID | EQ\_ID | CASCADE |

|  |  |
| --- | --- |
| Table Name | EVENTOS\_LOG |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | PROCESS\_NAME |  |  | Y | VARCHAR (30) | LT |  |  |  |  |
| 2 | SUBPROCESS\_NAME |  |  |  | VARCHAR (30) | LT |  |  |  |  |
| 3 | STATUS |  |  |  | VARCHAR (1) | LT |  |  |  |  |
| 4 | ORA\_CODE |  |  |  | VARCHAR (2000) | LT |  |  |  |  |
| 5 | FECHAB |  |  | Y | Date | LT |  |  |  |  |
| 6 | USERNAME |  |  |  | VARCHAR (20) | LT |  |  |  |  |

Columns Comments

| No | Column Name | Description | Notes |
| --- | --- | --- | --- |
| 1 | PROCESS\_NAME | Proceso principal que se ejecuta |  |
| 2 | SUBPROCESS\_NAME | Proceso secundario que se ejecuta |  |
| 3 | STATUS | Si es 0 esta ok si muestra 1 existe un error |  |
| 4 | ORA\_CODE | Almacena el error ocasionado en un proceso |  |
| 5 | FECHAB | Fecha ejecucion del proceso |  |
| 6 | USERNAME | Usuario que ejecuta el proceso |  |

|  |  |
| --- | --- |
| Table Name | ORDENES |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | NUM\_OS | P |  | Y | NUMERIC | LT |  |  |  |  |
| 2 | F\_GEN |  |  |  | Date | LT |  |  |  |  |
| 3 | F\_CIERRE |  |  |  | Date | LT |  |  |  |  |
| 4 | ESTADO\_OS |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 5 | TIP\_TRABAJO |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 6 | COMENTARIO\_OS |  |  |  | VARCHAR (500) | LT |  |  |  |  |
| 7 | COD\_SUCURSAL |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 8 | DUI\_CLI |  | F | Y | VARCHAR (12) | LT |  |  |  |  |
| 9 | USUARIO |  |  |  | VARCHAR (12) | LT |  |  |  |  |

Columns Comments

| No | Column Name | Description | Notes |
| --- | --- | --- | --- |
| 1 | NUM\_OS | Numero unico de la orden de servicio |  |
| 3 | F\_CIERRE | Fecha cierre de la OS |  |
| 5 | TIP\_TRABAJO | Tipo de trabajo a realizar |  |
| 6 | COMENTARIO\_OS | Sirve para dar mas detalle del tipo de trabajo |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| OS\_CLI\_FK | CLIENTES | Y | Y |  | DUI\_CLI | DUI\_CLI |  |

Foreign Keys (referred from)

| Name | Referred From | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| OS\_DET\_FK | ORDENES\_DETALLE | Y | Y |  | NUM\_OS | NUM\_OS | CASCADE |
| OS\_FK | EQUIPOS\_OS | Y | Y |  | NUM\_OS | NUM\_OS | CASCADE |
| OS\_FKv2 | VENTA\_DETALLE | Y | Y |  | NUM\_OS | NUM\_OS | CASCADE |

|  |  |
| --- | --- |
| Table Name | ORDENES\_DETALLE |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | NUM\_OS |  | F | Y | NUMERIC | LT |  |  |  |  |
| 2 | EQ\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 3 | PROD\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 4 | F\_CIERRE |  |  |  | Date | LT |  |  |  |  |
| 5 | OBSERVACIONES |  |  |  | VARCHAR (500) | LT |  |  |  |  |
| 6 | USUARIO |  |  |  | VARCHAR (12) | LT |  |  |  |  |

Columns Comments

| No | Column Name | Description | Notes |
| --- | --- | --- | --- |
| 3 | PROD\_ID | Clave Foranea de tabla productos realaciona todos los productos usados en la OS |  |
| 5 | OBSERVACIONES | Observaciones de cierre de la OS |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PROD\_FKv3 | PRODUCTOS | Y | Y |  | PROD\_ID | PROD\_ID | CASCADE |
| OS\_DET\_EQ\_FK | EQUIPOS\_OS | Y | Y |  | EQ\_ID | EQ\_ID | CASCADE |
| OS\_DET\_FK | ORDENES | Y | Y |  | NUM\_OS | NUM\_OS | CASCADE |

|  |  |
| --- | --- |
| Table Name | PEDIDOS\_COMPRA |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | PED\_ID | P |  | Y | NUMERIC | LT |  |  |  |  |
| 2 | PROV\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 3 | PROD\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 4 | PRODUCTO |  |  |  | VARCHAR (60) | LT |  |  |  |  |
| 5 | CANTIDAD |  |  |  | Integer | LT |  |  |  |  |
| 6 | PRECIO\_UNITARIO |  |  |  | DOUBLE | LT |  |  |  |  |
| 7 | PRECIO\_TOTAL |  |  |  | DOUBLE | LT |  |  |  |  |
| 8 | F\_INGRESO |  |  |  | Date | LT |  |  |  |  |
| 9 | ESTADO |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 10 | USUARIO |  |  |  | VARCHAR (12) | LT |  |  |  |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PROD\_FK | PRODUCTOS | Y | Y |  | PROD\_ID | PROD\_ID | CASCADE |
| PROV\_FKv2 | PROVEEDORES | Y | Y |  | PROV\_ID | PROV\_ID | CASCADE |

Foreign Keys (referred from)

| Name | Referred From | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PED\_CP\_FK | COMPRAS | Y | Y |  | PED\_ID | PED\_ID | CASCADE |

|  |  |
| --- | --- |
| Table Name | PERFILES\_USER |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | PERF\_USER | P |  | Y | VARCHAR (4) | LT |  |  |  |  |
| 2 | DESCRIPCION |  |  |  | VARCHAR (25) | LT |  |  |  |  |
| 3 | ESTADO |  |  |  | VARCHAR (4) | LT |  |  |  |  |

Foreign Keys (referred from)

| Name | Referred From | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| USER\_PERF\_FK | USUARIOS | Y | Y |  | PERF\_USER | PERF\_USER | CASCADE |

|  |  |
| --- | --- |
| Table Name | PRODUCTOS |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | PROD\_ID | P |  | Y | NUMERIC | LT |  |  |  |  |
| 2 | PROV\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 3 | PRODUCTO |  |  |  | VARCHAR (60) | LT |  |  |  |  |
| 4 | PRECIO |  |  |  | DOUBLE | LT |  |  |  |  |
| 5 | GRUPO\_PROD |  |  |  | VARCHAR (30) | LT |  |  |  |  |
| 6 | EXISTENCIA |  |  |  | Boolean (1) | LT |  |  |  |  |
| 7 | OBSERVACIONES |  |  |  | VARCHAR (60) | LT |  |  |  |  |
| 8 | F\_ALTA |  |  |  | Date | LT |  |  |  |  |
| 9 | F\_BAJA |  |  |  | Date | LT |  |  |  |  |
| 10 | ESTADO |  |  |  | VARCHAR (4) | LT |  |  |  |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PRODUCTOS\_PROVEEDORES\_FK | PROVEEDORES | Y | Y |  | PROV\_ID | PROV\_ID | CASCADE |

Foreign Keys (referred from)

| Name | Referred From | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PROD\_FK | PEDIDOS\_COMPRA | Y | Y |  | PROD\_ID | PROD\_ID | CASCADE |
| PROD\_FKv2 | VENTA\_DETALLE | Y | Y |  | PROD\_ID | PROD\_ID | CASCADE |
| PROD\_FKv3 | ORDENES\_DETALLE | Y | Y |  | PROD\_ID | PROD\_ID | CASCADE |
| PROD\_FKv4 | COMPRAS\_DETALLE | Y | Y |  | PROD\_ID | PROD\_ID | CASCADE |

|  |  |
| --- | --- |
| Table Name | PROVEEDORES |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | PROV\_ID | P |  | Y | NUMERIC | LT |  |  |  |  |
| 2 | NOMBRE |  |  |  | VARCHAR (120) | LT |  |  |  |  |
| 3 | DIRECCION |  |  |  | VARCHAR (300) | LT |  |  |  |  |
| 4 | TELEFONO |  |  |  | NUMERIC | LT |  |  |  |  |
| 5 | PAIS |  |  |  | VARCHAR (25) | LT |  |  |  |  |
| 6 | CIUDAD |  |  |  | VARCHAR (25) | LT |  |  |  |  |
| 7 | DEPTO |  |  |  | VARCHAR (25) | LT |  |  |  |  |
| 8 | CORREO |  |  |  | CHAR (30) | LT |  |  |  |  |
| 9 | RAZON\_SOCIAL |  |  |  | VARCHAR (30) | LT |  |  |  |  |
| 10 | NIT |  |  |  | VARCHAR (20) | LT |  |  |  |  |
| 11 | TIP\_PROV |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 12 | ESTADO |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 13 | DATOS\_EXTRAS |  |  |  | VARCHAR (100) | LT |  |  |  |  |

Foreign Keys (referred from)

| Name | Referred From | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PRODUCTOS\_PROVEEDORES\_FK | PRODUCTOS | Y | Y |  | PROV\_ID | PROV\_ID | CASCADE |
| PROV\_FK | COMPRAS | Y | Y |  | PROV\_ID | PROV\_ID | CASCADE |
| PROV\_FKv2 | PEDIDOS\_COMPRA | Y | Y |  | PROV\_ID | PROV\_ID | CASCADE |

|  |  |
| --- | --- |
| Table Name | TELEFONOS |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | TELEFONO | P |  | Y | VARCHAR (4) | LT |  |  |  |  |
| 2 | DUI\_CLI |  | F | Y | VARCHAR (12) | LT |  |  |  |  |
| 3 | ESTADO |  |  |  | VARCHAR (4) | LT |  |  |  |  |

Columns Comments

| No | Column Name | Description | Notes |
| --- | --- | --- | --- |
| 1 | TELEFONO | El cliente puede tener N telefonos |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| TEL\_CLI\_FK | CLIENTES | Y | Y |  | DUI\_CLI | DUI\_CLI | CASCADE |

|  |  |
| --- | --- |
| Table Name | USUARIOS |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | DUI\_USER | P |  | Y | VARCHAR (12) | LT |  |  |  |  |
| 2 | USUARIO |  |  |  | VARCHAR (12) | LT |  |  |  |  |
| 3 | PERF\_USER |  | F | Y | VARCHAR (4) | LT |  |  |  |  |
| 4 | NOMBRE |  |  |  | VARCHAR (120) | LT |  |  |  |  |
| 5 | PAIS |  |  |  | CHAR (25) | LT |  |  |  |  |
| 6 | TIP\_DOC |  |  |  | VARCHAR (4) | LT |  |  |  |  |
| 7 | F\_ALTA |  |  | Y | Date | LT |  |  |  |  |
| 8 | F\_EXPIRACION |  |  |  | Date | LT |  |  |  |  |
| 9 | F\_BAJA |  |  |  | Date | LT |  |  |  |  |
| 10 | ESTADO |  |  |  | VARCHAR (4) | LT |  |  |  |  |

Columns Comments

| No | Column Name | Description | Notes |
| --- | --- | --- | --- |
| 3 | PERF\_USER | Tipo de perfil dentro del sistema |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| USER\_PERF\_FK | PERFILES\_USER | Y | Y |  | PERF\_USER | PERF\_USER | CASCADE |

|  |  |
| --- | --- |
| Table Name | VENTA |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | VENT\_ID | P |  | Y | NUMERIC | LT |  |  |  |  |
| 2 | DUI\_CLI |  | F | Y | VARCHAR (12) | LT |  |  |  |  |
| 3 | F\_VENTA |  |  |  | Date | LT |  |  |  |  |
| 4 | DESCRIPCION |  |  |  | VARCHAR (500) | LT |  |  |  |  |
| 5 | PORCE\_DESC |  |  |  | DOUBLE | LT |  |  |  |  |
| 6 | IVA |  |  |  | DOUBLE | LT |  |  |  |  |
| 7 | SUBTOTAL |  |  |  | DOUBLE | LT |  |  |  |  |
| 8 | USUARIO |  |  |  | VARCHAR (10) | LT |  |  |  |  |

Columns Comments

| No | Column Name | Description | Notes |
| --- | --- | --- | --- |
| 2 | DUI\_CLI | Este campo hace referencia al cliente |  |
| 5 | PORCE\_DESC | Si aplica descuento |  |
| 8 | USUARIO | Usuario de venta |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CLI\_FK | CLIENTES | Y | Y |  | DUI\_CLI | DUI\_CLI | CASCADE |

Foreign Keys (referred from)

| Name | Referred From | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| VENT\_DET\_FK | VENTA\_DETALLE | Y | Y |  | VENT\_ID | VENT\_ID | CASCADE |

|  |  |
| --- | --- |
| Table Name | VENTA\_DETALLE |

Columns

| No | Column Name | PK | FK | M | Data Type | DT  kind | Domain Name | Formula  (Default Value) | Security | Abbreviation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | VENTD\_ID | P |  | Y | NUMERIC | LT |  |  |  |  |
| 2 | VENT\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 3 | PROD\_ID |  | F | Y | NUMERIC | LT |  |  |  |  |
| 4 | NUM\_OS |  | F | Y | NUMERIC | LT |  |  |  |  |
| 5 | PRECIO |  |  |  | NUMERIC | LT |  |  |  |  |
| 6 | CANTIDAD |  |  |  | NUMERIC | LT |  |  |  |  |
| 7 | TOTAL\_IMPORTE |  |  | Y | DOUBLE | LT |  |  |  |  |

Foreign Keys (referring to)

| Name | Refering To | Mandatory | Transferable | In Arc | Columns | Referred Columns | Delete Rule |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PROD\_FKv2 | PRODUCTOS | Y | Y |  | PROD\_ID | PROD\_ID | CASCADE |
| VENT\_DET\_FK | VENTA | Y | Y |  | VENT\_ID | VENT\_ID | CASCADE |
| OS\_FKv2 | ORDENES | Y | Y |  | NUM\_OS | NUM\_OS | CASCADE |