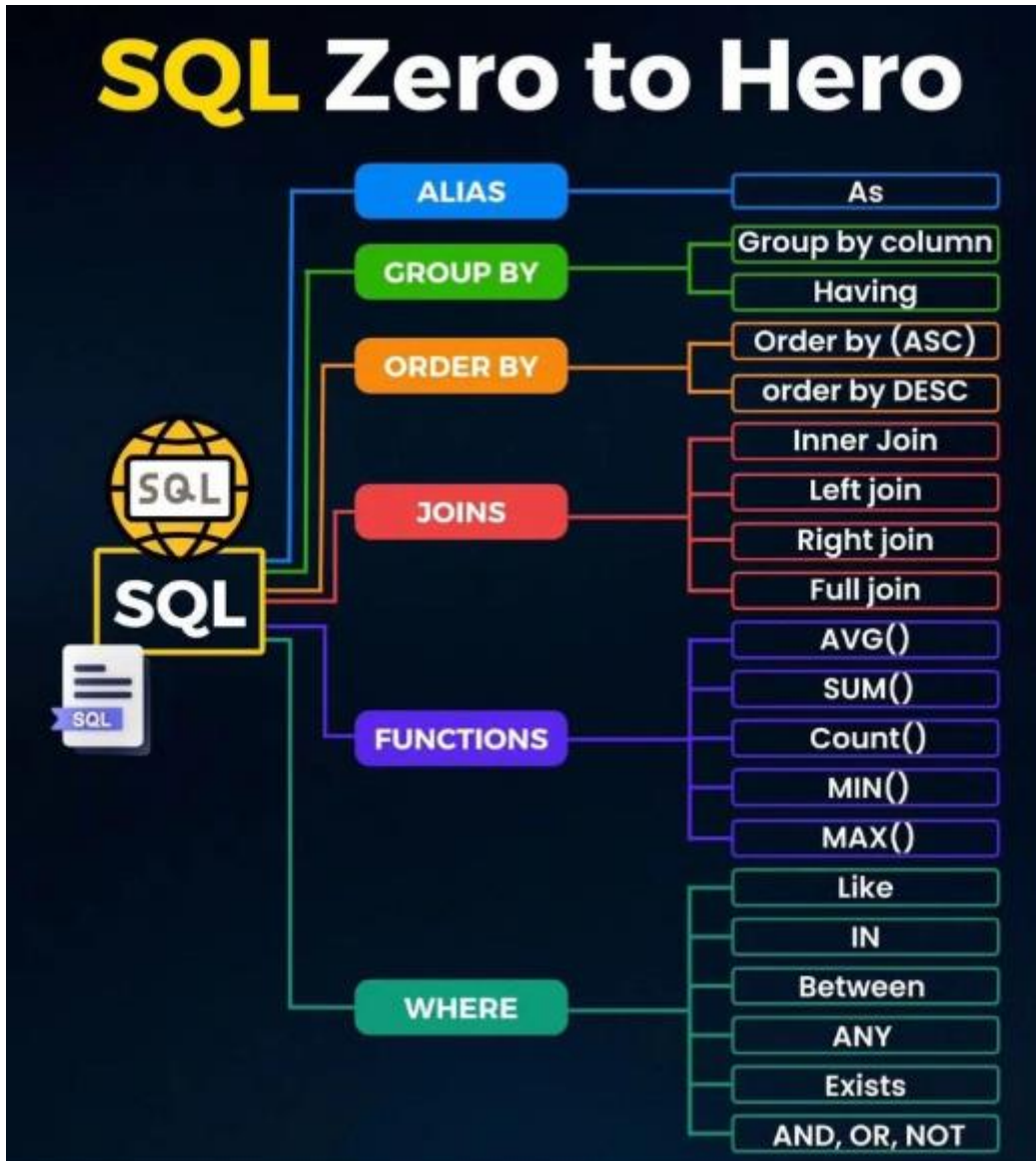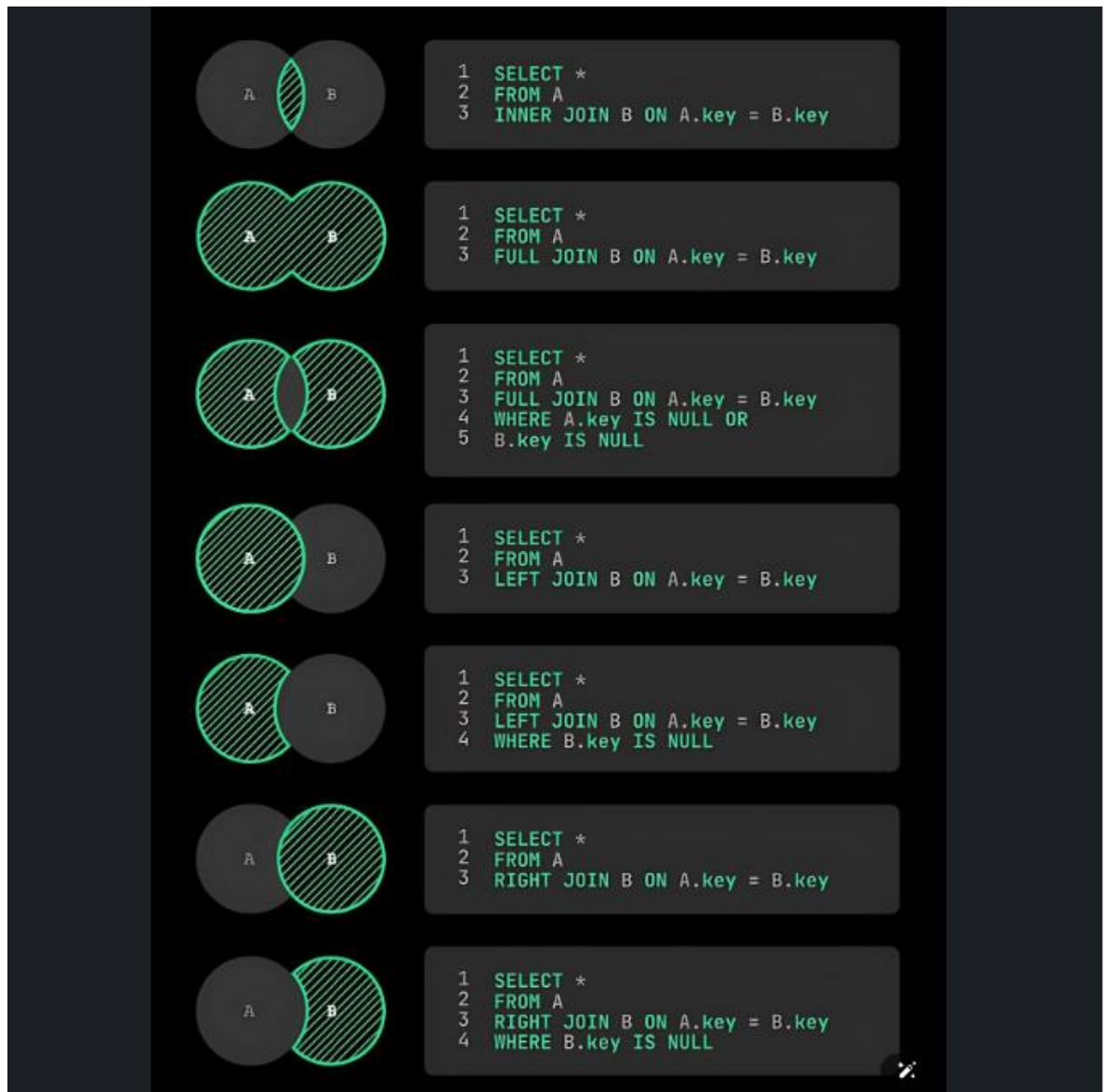Clase de Base de datos

29-10-24

- Alias se demona con as
- Group by es para agrupar por tareas
- Order by para ordenar de manera ascendente y descendente.

- 
- La uno esta pintada al medio y se llama intersección.
- La segunda dice que hay que seleccionar todo y luego ir a la parte A , el punto key es la llave y pide que compare los dos conjuntos y elija los elementos comunes.
- Full join es todo seleccionar absolutamente todo.
- El tercer código es seleccionar toda la información, tomar la A y comparar la información con la B.
- Is null es para saber si hay información o no.
- En la cuarta imagen toma las imágenes, pero compara y toma sólo que está a la izquierda de B.

- Se crea base de datos en MySQL.
- Se coloca use empresa poque se va a color algo en empresa.
- Se crea la tabla comuna .
- Null vacío
- Not null no tiene vacíos.
- Con la sentencia se busca algo específico.
- El clic verde es que la tabla eesta chequeada y ter permite seguir trabajando en MySQL.
- **Between signisfica entre**

**Código**

**-- CREACIÓN DE BASE DE DATOS**

**CREATE DATABASE Empresa;**

**-- INDICACIÓN DE USO DE ESA BASE EN PARTICULAR**

**USE Empresa;**


**-- CREACIÓN Y RELACIÓN DE TABLAS**

**CREATE TABLE Comuna**

**(**

     **Com_ID integer PRIMARY KEY,**

  **Com_Nombre varchar(30) NULL**

**);**


**CREATE TABLE Cargo**

**(**

     **Crg_ID integer PRIMARY KEY,**

  **Crg_Nombre varchar(20) NULL**

**);**

```sql
CREATE TABLE Empleado
(
        Emp_Rut varchar(15) PRIMARY KEY NOT NULL,

    Emp_Nombre varchar(20) NULL,

    Emp_Apellido varchar(20) NULL,

    Emp_ID_Cargo int NULL,

        Emp_Sueldo integer NULL,

        Emp_ID_Comuna integer NULL,

    CONSTRAINT FK_Empleado_Cargo FOREIGN KEY (Emp_ID_Cargo) REFERENCES
Cargo(Crg_ID),

    CONSTRAINT FK_Empleado_Comuna FOREIGN KEY (Emp_ID_Comuna)
REFERENCES Comuna(Com_ID)
);


CREATE TABLE Cliente
(
        Cli_Rut varchar(15) PRIMARY KEY,

    Cli_Nombre varchar(20) NULL,

    Cli_Apellido varchar(20) NULL,

    Cli_ID_Comuna integer NULL,

    CONSTRAINT FK_Cliente_Comuna FOREIGN KEY (Cli_ID_Comuna) REFERENCES
Comuna(Com_ID)
);


CREATE TABLE Producto
(
```

```sql
        Prd_ID integer PRIMARY KEY,

    Prd_Nombre varchar(20) NULL
);


CREATE TABLE ProductoCliente
(
        Pcl_Cli_Rut varchar(15) NOT NULL,

    Pcl_ID_Prod integer NOT NULL,

    Pcl_Fecha_Entrega date NULL,

        Pcl_Saldo integer NULL,

    CONSTRAINT FK_PC_Cliente FOREIGN KEY (Pcl_Cli_Rut) REFERENCES Cliente(Cli_Rut),

    CONSTRAINT FK_PC_Producto FOREIGN KEY (Pcl_ID_Prod) REFERENCES Producto(Prd_ID)
);


-- POBLADO DE TABLAS
INSERT INTO Comuna(Com_ID, Com_Nombre)
        VALUES (1,'Arica'),
                (2,'Camarones'),
                (3,'Iquique'),
                (4,'Pica'),
                (5,'Pozo Almonte'),
                (6,'Huara'),
                (7,'Camina'),
                (8,'Colchane'),
                (9,'Alto Hospicio'),
```

(10,'Putre'),

(11,'General Lagos'),

(12,'Tocopilla'),

(13,'Maria Elena'),

(14,'Antofagasta'),

(15,'Taltal'),

(16,'Mejillones'),

(17,'Sierra Gorda'),

(18,'Calama'),

(19,'Ollague'),

(20,'San Pedro De Atacama'),

(21,'Chanaral'),

(22,'Diego De Almagro'),

(23,'Copiapo'),

(24,'Caldera'),

(25,'Tierra Amarilla'),

(26,'Vallenar'),

(27,'Freirina'),

(28,'Huasco'),

(29,'Alto Del Carmen'),

(30,'La Serena'),

(31,'La Higuera'),

(32,'Coquimbo'),

(33,'Andacollo'),

(34,'Vicuna'),

(35,'Paihuano'),

(36,'Ovalle'),

(37,'Monte Patria'),

(38,'Punitaqui'),

(39,'Combarbala'),

(40,'Rio Hurtado'),

(41,'Illapel'),

(42,'Salamanca'),

(43,'Los Vilos'),

(44,'Canela'),

(45,'Isla De Pascua'),

(46,'La Ligua'),

(47,'Petorca'),

(48,'Cabildo'),

(49,'Zapallar'),

(50,'Papudo'),

(51,'Valparaiso'),

(52,'Vina Del Mar'),

(53,'Villa Alemana'),

(54,'Quilpue'),

(55,'Casablanca'),

(56,'Quintero'),

(57,'Puchuncavi'),

(58,'Juan Fernandez'),

(59,'Concon'),

(60,'San Antonio'),

(61,'Santo Domingo'),

(62,'Cartagena'),

(63,'El Tabo'),

(64,'El Quisco'),

(65,'Algarrobo'),

(66,'Quillota'),

(67,'Nogales'),

(68,'Hijuelas'),

(69,'La Calera'),

(70,'La Cruz'),

(71,'Limache'),

(72,'Olmue'),

(73,'San Felipe'),

(74,'Panquehue'),

(75,'Catemu'),

(76,'Putaendo'),

(77,'Santa Maria'),

(78,'Llay-Llay'),

(79,'Los Andes'),

(80,'Calle Larga'),

(81,'San Esteban'),

(82,'Rinconada'),

(83,'Rancagua'),

(84,'Machali'),

(85,'Graneros'),

(86,'San Francisco De Mostazal'),

(87,'Donihue'),

(88,'Coltauco'),

(89,'Codegua'),

(90,'Peumo'),

(91,'Las Cabras'),

(92,'San Vicente'),

(93,'Pichidegua'),

(94,'Rengo'),

(95,'Requinoa'),

(96,'Olivar'),

(97,'Malloa'),

(98,'Coinco'),

(99,'Quinta De Tilcoco'),

(100,'San Fernando'),

(101,'Chimbarongo'),

(102,'Nancagua'),

(103,'Placilla'),

(104,'Santa Cruz'),

(105,'Lolol'),

(106,'Palmilla'),

(107,'Peralillo'),

(108,'Chepica'),

(109,'Pumanque'),

(110,'Pichilemu'),

(111,'Navidad'),

(112,'Litueche'),

(113,'La Estrella'),

(114,'Marchigue'),

(115,'Paredones'),

(116,'Curico'),

(117,'Teno'),

(118,'Romeral'),

(119,'Rauco'),

(120,'Licanten'),

(121,'Vichuquen'),

(122,'Hualane'),

(123,'Molina'),

(124,'Sagrada Familia'),

(125,'Talca'),

(126,'San Clemente'),

(127,'Pelarco'),

(128,'Rio Claro'),

(129,'Pencahue'),

(130,'Maule'),

(131,'Curepto'),

(132,'Constitucion'),

(133,'Empedrado'),

(134,'San Rafael'),

(135,'Linares'),

(136,'Yerbas Buenas'),

(137,'Colbun'),

(138,'Longavi'),

(139,'Parral'),

(140,'Retiro'),

(141,'Villa Alegre'),

(142,'San Javier'),

(143,'Cauquenes'),

(144,'Pelluhue'),

(145,'Chanco'),

(146,'Chillan'),

(147,'Pinto'),

(148,'Coihueco'),

(149,'Quirihue'),

(150,'Ninhue'),

(151,'Portezuelo'),

(152,'Cobquecura'),

(153,'Trehuaco'),

(154,'San Carlos'),

(155,'Niquen'),

(156,'San Fabian'),

(157,'San Nicolas'),

(158,'Bulnes'),

(159,'San Ignacio'),

(160,'Quillon'),

(161,'Yungay'),

(162,'Pemuco'),

(163,'El Carmen'),

(164,'Ranquil'),

(165,'Coelemu'),

(166,'Chillan Viejo'),

(167,'Concepcion'),

(168,'Penco'),

(169,'Hualqui'),

(170,'Florida'),

(171,'Tome'),

(172,'Talcahuano'),

(173,'Coronel'),

(174,'Lota'),

(175,'Santa Juana'),

(176,'San Pedro De La Paz'),

(177,'Chiguayante'),

(178,'Hualpen'),

(179,'Arauco'),

(180,'Curanilahue'),

(181,'Lebu'),

(182,'Los Alamos'),

(183,'Canete'),

(184,'Contulmo'),

(185,'Tirua'),

(186,'Los Angeles'),

(187,'Santa Barbara'),

(188,'Laja'),

(189,'Quilleco'),

(190,'Nacimiento'),

(191,'Negrete'),

(192,'Mulchen'),

(193,'Quilaco'),

(194,'Yumbel'),

(195,'Cabrero'),

(196,'San Rosendo'),

(197,'Tucapel'),

(198,'Antuco'),

(199,'Alto Biobio'),

(200,'Angol'),

(201,'Puren'),

(202,'Los Sauces'),

(203,'Renaico'),

(204,'Collipulli'),

(205,'Ercilla'),

(206,'Traiguen'),

(207,'Lumaco'),

(208,'Victoria'),

(209,'Curacautin'),

(210,'Lonquimay'),

(211,'Temuco'),

(212,'Vilcun'),

(213,'Freire'),

(214,'Cunco'),

(215,'Lautaro'),

(216,'Perquenco'),

(217,'Galvarino'),

(218,'Nueva Imperial'),

(219,'Carahue'),

(220,'Saavedra'),

(221,'Pitrufquen'),

(222,'Gorbea'),

(223,'Tolten'),

(224,'Loncoche'),

(225,'Villarrica'),

(226,'Pucon'),

(227,'Melipeuco'),

(228,'Curarrehue'),

(229,'Teodoro Schmidt'),

(230,'Padre Las Casas'),

(231,'Cholchol'),

(232,'Valdivia'),

(233,'Mariquina'),

(234,'Lanco'),

(235,'Los Lagos'),

(236,'Futrono'),

(237,'Corral'),

(238,'Mafil'),

(239,'Panguipulli'),

(240,'La Union'),

(241,'Paillaco'),

(242,'Rio Bueno'),

(243,'Lago Ranco'),

(244,'Osorno'),

(245,'San Pablo'),

(246,'Puerto Octay'),

(247,'Puyehue'),

(248,'Rio Negro'),

(249,'Purranque'),

(250,'San Juan De La Costa'),

(251,'Puerto Montt'),

(252,'Cochamo'),

(253,'Puerto Varas'),

(254,'Fresia'),

(255,'Frutillar'),

(256,'Llanquihue'),

(257,'Maullin'),

(258,'Los Muermos'),

(259,'Calbuco'),

(260,'Castro'),

(261,'Chonchi'),

(262,'Queilen'),

(263,'Quellon'),

(264,'Puqueldon'),

(265,'Ancud'),

(266,'Quemchi'),

(267,'Dalcahue'),

(268,'Curaco De Velez'),

(269,'Quinchao'),

(270,'Chaiten'),

(271,'Hualaihue'),

(272,'Futaleufu'),

(273,'Palena'),

(274,'Aysen'),

(275,'Cisnes'),

(276,'Guaitecas'),

(277,'Chile Chico'),

(278,'Rio Ibanez'),

(279,'Cochrane'),

(280,'Ohiggins'),

(281,'Tortel'),

(282,'Coyhaique'),

(283,'Lago Verde'),

(284,'Natales'),

(285,'Torres Del Paine'),

(286,'Rio Verde'),

(287,'San Gregorio'),

(288,'Punta Arenas'),

(289,'Laguna Blanca'),

(290,'Porvenir'),

(291,'Primavera'),

(292,'Timaukel'),

(293,'Cabo De Hornos'),

(294,'Santiago'),

(295,'Santiago Oeste'),

(296,'Santiago Sur'),

(297,'Recoleta'),

(298,'Independencia'),

(299,'Quinta Normal'),

(300,'Maipu'),

(301,'Pudahuel'),

(302,'Renca'),

(303,'Quilicura'),

(304,'Conchali'),

(305,'Lo Prado'),

(306,'Cerro Navia'),

(307,'Estacion Central'),

(308,'Huechuraba'),

(309,'Cerrillos'),

(310,'Colina'),

(311,'Lampa'),

(312,'Til-Til'),

(313,'Talagante'),

(314,'Isla De Maipo'),

(315,'El Monte'),

(316,'Penaflor'),

(317,'Padre Hurtado'),

(318,'Melipilla'),

(319,'Maria Pinto'),

(320,'Curacavi'),

(321,'San Pedro'),

```
(322,'Alhue'),

(323,'Providencia'),

(324,'Nunoa'),

(325,'Las Condes'),

(326,'La Florida'),

(327,'La Reina'),

(328,'Macul'),

(329,'Penalolen'),

(330,'Vitacura'),

(331,'Lo Barnechea'),

(332,'San Miguel'),

(333,'La Cisterna'),

(334,'La Granja'),

(335,'San Ramon'),

(336,'La Pintana'),

(337,'Pedro Aguirre Cerda'),

(338,'San Joaquin'),

(339,'Lo Espejo'),

(340,'El Bosque'),

(341,'Puente Alto'),

(342,'Pirque'),

(343,'San Jose De Maipo'),

(344,'San Bernardo'),

(345,'Calera De Tango'),

(346,'Buin'),

(347,'Paine');
```

```sql
INSERT INTO Cargo(Crg_ID,Crg_Nombre)
        VALUES (2,'Administrativo'),
                (3,'Auxiliar'),
                (1,'Directivo'),
                (4,'Profesional'),
                (5,'Técnico');


INSERT                                                              INTO
Empleado(Emp_Rut,Emp_Nombre,Emp_Apellido,Emp_ID_Cargo,Emp_Sueldo,Em
p_ID_Comuna)
        VALUES ('10.285.852-5','Nelson','Soto',4,2091237,337),
                ('10.292.640-6','Alejandro','Aguirre',1,1132763,17),
                ('10.495.551-4','Patricia','Torres',4,2913209,61),
                ('10.498.286-1','Manuel','Pelen',2,1516182,301),
                ('10.526.079-9','Maria','Perez',2,1924735,264),
                ('10.927.784-2','Luis','Paredes',5,1763556,167),
                ('11.018.117-9','Manuel','Pelen',2,1971171,293),
                ('11.176.263-9','Patricia','Torres',4,2878888,29),
                ('11.204.973-8','Patricio','Torres',4,895418,29),
                ('11.323.292-2','Mario','Recabarren',3,1067277,283),
                ('11.837.492-9','Jessica','Gonzalez',4,3002796,9),
                ('11.959.000-8','Jessica','Oro',4,2868836,281),
                ('12.081.261-9','Hernan','Felmer',1,2311982,216),
                ('12.508.494-7','Nancy','Rojas',1,2375142,337),
                ('12.615.094-1','Javier','Godoy',4,542996,103),
                ('12.697.760-2','Jaime','Godoy',4,1693110,269),
```

('12.979.266-4','Silvia','Velasco',5,574671,53),

('13.204.141-2','Jaime','Gallardo',4,705870,194),

('13.258.823-2','Cristian','Carvajal',5,1783183,122),

('13.930.499-8','Alejandro','Aguirre',1,419304,322),

('14.545.301-2','Silvia','Velasco',2,752942,275),

('14.574.691-3','Ana','Aliaga',1,1074403,199),

('14.852.462-5','Edgar','Chiuminatto',2,1048130,184),

('14.912.656-0','Nelson','Rojas',4,2176600,270),

('15.132.479-6','Raul','Trujillo',4,2479885,41),

('15.419.362-0','Tomas','Vilches',2,2138126,119),

('15.522.694-0','Manuel','Pelen',2,784852,205),

('15.771.988-2','Maria','Perez',3,737278,37),

('15.935.134-K','Carolina','Angel',4,2457856,61),

('15.962.147-5','Hernan','Felmer',1,2749302,261),

('16.225.956-2','Mario','Pujado',3,2333121,6),

('16.427.498-3','Hernan','Felmer',1,567354,270),

('16.574.406-K','Mariela','Poblete',3,2522608,243),

('16.762.647-4','Claudia','Becerra',4,2179802,323),

('2.938.335-2','Gloria','Cornejo',2,380522,225),

('3.154.586-9','Irene','Gallardo',1,771568,251),

('3.165.599-2','Maria','Poblete',3,432162,53),

('3.381.511-4','Victor','Yañez',2,1310340,6),

('3.919.985-6','Jaime','Gallardo',4,539299,192),

('3.924.398-8','Claudia','Barraza',4,2489591,241),

('3.931.759-4','Gustavo','Encina',2,2576542,38),

('4.427.927-8','Luis','Paredes',5,3071469,268),

('4.631.547-6','Maria','Perez',3,1045479,62),

('4.668.162-8','Clara','Astorga',4,2631461,286),

('4.749.204-0','Carolina','Angel',1,1795651,43),

('4.820.239-1','Cristian','Becerra',4,2216246,210);


INSERT INTO Cliente(Cli_Rut,Cli_Nombre,Cli_Apellido,Cli_ID_Comuna)

VALUES ('4.824.256-8','Marcela','Perez',200),

('4.857.208-8','Miguel','Recabarren',332),

('6.028.434-9','Edgar','Chiuminatto',163),

('6.324.328-7','Patricia','Toro',4),

('6.857.752-7','Irene','Gallardo',343),

('7.008.269-0','Nancy','Rojas',234),

('7.091.874-4','Ana','Alvarez',171),

('7.218.313-K','Maria','Perez',128),

('7.444.673-4','Irene','Gallardo',208),

('7.691.632-K','Edgar','Chiuminatto',329),

('7.808.919-3','Marcela','Perez',268),

('7.833.272-3','Ana','Alvarez',38),

('7.977.572-0','Jorge','Oro',45),

('8.132.420-5','Gloria','Cornejo',70),

('8.287.236-2','Clara','Barraza',264),

('8.355.882-K','Silvia','Velasco',142),

('8.441.763-9','Javier','Gonzalez',151),

('8.733.113-0','Marcela','Perez',221),

('8.827.579-8','Maria','Poblete',22),

('9.107.963-8','Clara','Araya',144),

```sql
        ('9.278.913-8','Raul','Trujillo',156),

        ('9.304.721-3','Miguel','Rivera',141),

        ('9.427.032-9','Mariela','Pujado',243),

        ('9.434.595-7','Gustavo','Encina',38),

        ('9.441.200-0','Gloria','Cornejo',275),

        ('9.819.938-6','Victor','Yañez',4),

        ('9.934.176-9','Nelson','Soto',235);


INSERT INTO Producto(Prd_ID,Prd_Nombre)

        VALUES (1001,'VideoGrabador'),

                (1002,'Microondas'),

                (1003,'Televisor 21"'),

                (1004,'Centrifuga'),

                (1005,'Refrigerador'),

                (1006,'Lavadora'),

                (1007,'Radiograbador'),

                (1008,'Aspiradora'),

                (1009,'Televisor 14"'),

                (1010,'Televisor 29"');


INSERT                                                    INTO
ProductoCliente(Pcl_Cli_Rut,Pcl_ID_Prod,Pcl_Fecha_Entrega,Pcl_Saldo)

        VALUES ('7.091.874-4',1002,'2016-5-23',78035),

                ('6.028.434-9',1007,'2016-11-3',97459),

                ('7.091.874-4',1002,'2016-3-27',104852),

                ('6.028.434-9',1002,'2016-10-6',93204),
```

('4.824.256-8',1007,'2016-1-28',85197),

('4.824.256-8',1010,'2016-3-14',75754),

('7.091.874-4',1002,'2016-8-30',125748),

('9.278.913-8',1003,'2016-8-24',46096),

('9.278.913-8',1008,'2016-2-4',102337),

('4.824.256-8',1010,'2016-8-22',113765),

('4.857.208-8',1002,'2016-8-7',96737),

('6.028.434-9',1008,'2016-7-9',60471),

('6.324.328-7',1005,'2016-4-21',48076),

('7.008.269-0',1002,'2016-7-26',48054),

('7.444.673-4',1007,'2016-6-30',134860),

('7.691.632-K',1008,'2016-9-21',133149),

('7.833.272-3',1007,'2016-6-6',43904),

('7.977.572-0',1005,'2016-8-2',76336),

('8.132.420-5',1008,'2016-4-10',97632),

('8.355.882-K',1003,'2016-11-4',51823),

('8.441.763-9',1002,'2016-5-17',102486),

('8.733.113-0',1005,'2016-10-31',129063),

('8.827.579-8',1001,'2016-3-31',38133),

('9.278.913-8',1007,'2016-7-26',60413),

('9.304.721-3',1010,'2016-1-13',53711),

('9.427.032-9',1006,'2016-9-7',61929),

('9.434.595-7',1003,'2016-8-17',132569),

('9.441.200-0',1002,'2016-2-9',53763),

('9.934.176-9',1002,'2016-5-1',148602);

## Códigos para buscar en las tablas

```sql
select * from cargo;

select * from cliente;

select * from comuna;

select * from empleado;

select * from productocliente;


select * from empleado where emp_nombre = 'Nelson';

select * from empleado where emp_Sueldo between 200000 and 600000;

select * from empleado where emp_sueldo >= 200000 and emp_sueldo<=600000;

select * from empleado where emp_sueldo >= 1000000

select * from empleado where emp_nombre like '%nelson%';

select * from empleado where emp_nombre like not like '%nelson%';


select * from empleado where emp_ID_cargo in (1,4,5);

select * from empleado where emp_ID_cargo = 4 order by emp_nombre;

select * from empleado where emp_ID_cargo = 4 order by emp_ID_comuna asc;


select Cli_nombre, C.cli_apellido

from cliente as C;
```

```
1 •  select * from cargo;
2 •  select * from cliente;
3 •  select * from comuna;
4 •  select * from empleado;
5 •  select * from productocliente;
6
7 •  select * from empleado where emp_nombre = 'Nelson';
8 •  select * from empleado where emp_Sueldo between 200000 and 600000;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: 

| Emp_Rut | Emp_Nombre | Emp_Apellido | Emp_ID_Cargo | Emp_Sueldo | Emp_ID_Comuna |
|---|---|---|---|---|---|
| 12.615.094-1 | Javier | Godoy | 4 | 542996 | 103 |
| 12.979.266-4 | Silvia | Velasco | 5 | 574671 | 53 |
| 13.930.499-8 | Alejandro | Aguirre | 1 | 419304 | 322 |
| 16.427.498-3 | Hernan | Felmer | 1 | 567354 | 270 |
| 2.938.335-2 | Gloria | Cornejo | 2 | 380522 | 225 |
| 3.165.599-2 | Maria | Poblete | 3 | 432162 | 53 |
| 3.919.985-6 | Jaime | Gallardo | 4 | 539299 | 192 |
| NULL | NULL | NULL | NULL | NULL | NULL |

cargo 1    cliente 2    comuna 3    empleado 4    productocliente 5    empleado 6    empleado 7    empleado 8 ×    empleado 9    empleado 10    empleado 11    cliente 12

Output