

# Desenvolupament d'aplicacions amb tecnologies web

MF0492\_3

## Pràctica MF0492\_3.A: Creació d'una Base de dades (UF1845).

**Objectius:** A partir d'un full de càlcul facilitat per l'empresa **SuperStore S.L.** definim un model Entitat Relació (ER) que representi l'estructura de taules necessàries per migrar la informació continguda al full de càlcul a una base de dades creada expressament. Utilitzant eines d'importació bolcarem la informació continguda al full de càlcul dins de la base de dades.

- El fitxer original l'obtenim de ruta:

```
"/Apunts/MF0492_3_Progr_Web_Servidor/media/Superstore.xls".
```

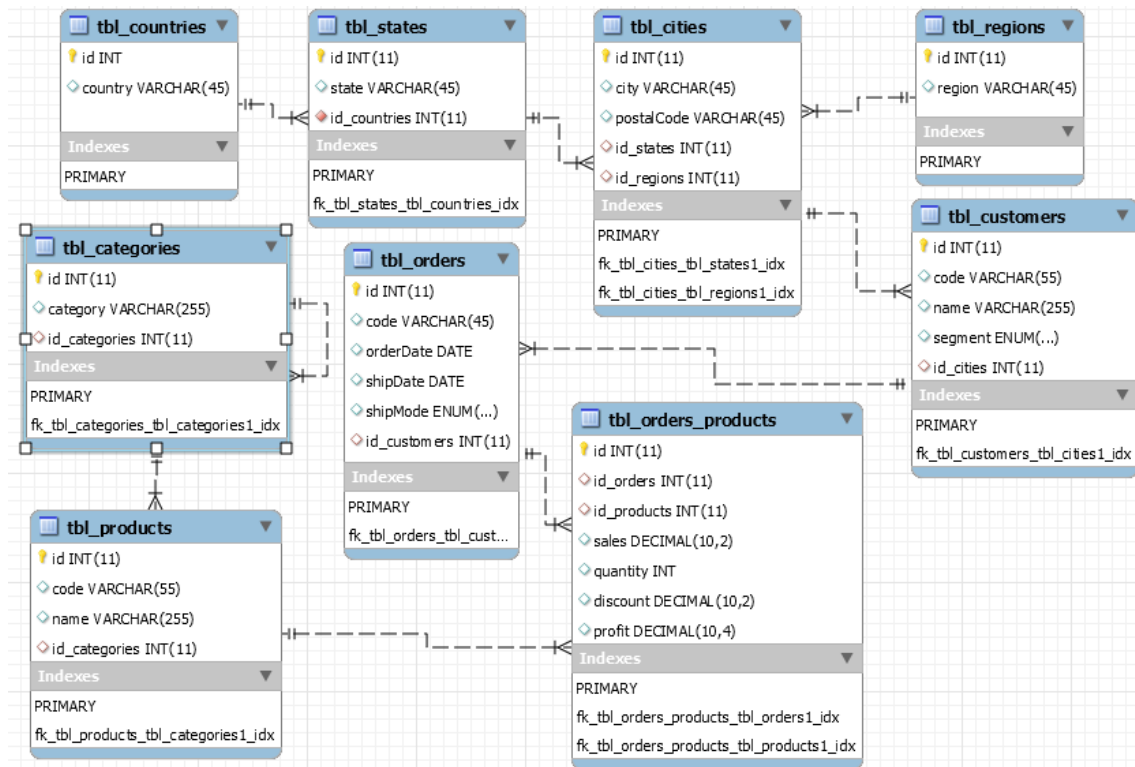
- Volem que la base de dades tingui per nom "**superstore**" i que s'assigni permisos complets a un nou usuari "**u\_superstore**" amb accés des de qualsevol indret de la xarxa i amb la contrasenya "**12345**".

### Solució

1. Comencem per definir les primeres línies de l'arxiu de DDL que definirà l'estructura i definició de les taules:

```
-- SuperStore DDL Definition --  
  
-- Crear Base de datos --  
CREATE DATABASE IF NOT EXISTS superstore CHARACTER SET utf8 COLLATE utf8_general_ci;  
  
-- Crear Usuario de BD --  
CREATE USER 'u_superstore'@ '%' IDENTIFIED BY '12345';  
  
-- Asignación de permisos --  
GRANT ALL ON superstore.* TO u_superstore;  
  
-- Seleccionar BD activa --  
USE superstore ;
```

2. A partir de la anàlisi de la informació del full de càlcul deduïm l'estructura de taules que es mostra a continuació:



Finalment ens quedarà un fitxer de DDL:

```
-- SuperStore DDL Definition --

-- Crear Base de datos --
CREATE DATABASE IF NOT EXISTS superstore CHARACTER SET utf8 COLLATE utf8_general_ci;

-- Crear Usuario de BD --
CREATE USER 'u_superstore'@'%' IDENTIFIED BY '12345';

-- Asignación de permisos --
GRANT ALL ON superstore.* TO u_superstore;

-- Seleccionar BD activa --
USE superstore ;

-- tbl_countries --
CREATE TABLE IF NOT EXISTS `superstore`.`tbl_countries` (
  `id` INT NOT NULL AUTO_INCREMENT,
  `country` VARCHAR(45) NULL,
  PRIMARY KEY (`id`));

-- tbl_states --
CREATE TABLE IF NOT EXISTS `superstore`.`tbl_states` (
  `id` INT(11) NOT NULL,
  `state` VARCHAR(45) NULL,
  `id_countries` INT(11) NOT NULL,
  PRIMARY KEY (`id`),
  INDEX `fk_tbl_states_tbl_countries_idx` (`id_countries` ASC),
  CONSTRAINT `fk_tbl_states_tbl_countries` FOREIGN KEY (`id_countries`) REFERENCES
  `superstore`.`tbl_countries` (`id`)
  ON DELETE NO ACTION ON UPDATE NO ACTION);

-- tbl_regions --
CREATE TABLE IF NOT EXISTS `superstore`.`tbl_regions` (
  `id` INT(11) NOT NULL AUTO_INCREMENT,
  `region` VARCHAR(45) NULL,
  PRIMARY KEY (`id`));

-- tbl_cities --
CREATE TABLE IF NOT EXISTS `superstore`.`tbl_cities` (
  `id` INT(11) NOT NULL AUTO_INCREMENT,
  `city` VARCHAR(45) NULL,
  `postalCode` VARCHAR(45) NULL,
  `id_states` INT(11) NULL,
  `id_regions` INT(11) NULL,
  PRIMARY KEY (`id`),
```

```

INDEX `fk_tbl_cities_tbl_states1_idx` (`id_states` ASC),
INDEX `fk_tbl_cities_tbl_regions1_idx` (`id_regions` ASC),
CONSTRAINT `fk_tbl_cities_tbl_states1` FOREIGN KEY (`id_states`)
REFERENCES `superstore`.`tbl_states` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
CONSTRAINT `fk_tbl_cities_tbl_regions1` FOREIGN KEY (`id_regions`)
REFERENCES `superstore`.`tbl_regions` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION);

-- tbl_customers --
CREATE TABLE IF NOT EXISTS `superstore`.`tbl_customers` (
`id` INT(11) NOT NULL AUTO_INCREMENT,
`code` VARCHAR(55) NULL,
`name` VARCHAR(255) NULL,
`segment` ENUM('Corporate', 'Home Office', 'Consumer') NULL,
`id_cities` INT(11) NULL,
PRIMARY KEY (`id`),
INDEX `fk_tbl_customers_tbl_cities1_idx` (`id_cities` ASC),
CONSTRAINT `fk_tbl_customers_tbl_cities1` FOREIGN KEY (`id_cities`)
REFERENCES `superstore`.`tbl_cities` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION);

-- tbl_ordres --
CREATE TABLE IF NOT EXISTS `superstore`.`tbl_orders` (
`id` INT(11) NOT NULL AUTO_INCREMENT,
`code` VARCHAR(45) NULL,
`orderDate` DATE NULL,
`shipDate` DATE NULL,
`shipMode` ENUM('First Class', 'Second Class', 'Standard Class') NULL,
`id_customers` INT(11) NULL,
PRIMARY KEY (`id`),
INDEX `fk_tbl_orders_tbl_customers1_idx` (`id_customers` ASC),
CONSTRAINT `fk_tbl_orders_tbl_customers1` FOREIGN KEY (`id_customers`)
REFERENCES `superstore`.`tbl_customers` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION);

-- tbl_categories --
CREATE TABLE IF NOT EXISTS `superstore`.`tbl_categories` (
`id` INT(11) NOT NULL AUTO_INCREMENT,
`category` VARCHAR(255) NULL,
`id_categories` INT(11) NULL,
PRIMARY KEY (`id`),
INDEX `fk_tbl_categories_tbl_categories1_idx` (`id_categories` ASC),
CONSTRAINT `fk_tbl_categories_tbl_categories1` FOREIGN KEY (`id_categories`)
REFERENCES `superstore`.`tbl_categories` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION );

-- tbl_products --
CREATE TABLE IF NOT EXISTS `superstore`.`tbl_products` (
`id` INT(11) NOT NULL AUTO_INCREMENT,
`code` VARCHAR(55) NULL,
`name` VARCHAR(255) NULL,
`id_categories` INT(11) NULL,
PRIMARY KEY (`id`),
INDEX `fk_tbl_products_tbl_categories1_idx` (`id_categories` ASC),
CONSTRAINT `fk_tbl_products_tbl_categories1` FOREIGN KEY (`id_categories`)
REFERENCES `superstore`.`tbl_categories` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION);

-- tbl_orders_products --
CREATE TABLE IF NOT EXISTS `superstore`.`tbl_orders_products` (
`id` INT(11) NOT NULL AUTO_INCREMENT,
`id_orders` INT(11) NULL,
`id_products` INT(11) NULL,
`sales` DECIMAL(10,2) NULL,
`quantity` INT NULL,
`discount` DECIMAL(10,2) NULL,
`profit` DECIMAL(10,4) NULL,
PRIMARY KEY (`id`),
INDEX `fk_tbl_orders_products_tbl_orders1_idx` (`id_orders` ASC),
INDEX `fk_tbl_orders_products_tbl_products1_idx` (`id_products` ASC),
CONSTRAINT `fk_tbl_orders_products_tbl_orders1` FOREIGN KEY (`id_orders`)
REFERENCES `superstore`.`tbl_orders` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
CONSTRAINT `fk_tbl_orders_products_tbl_products1` FOREIGN KEY (`id_products`)
REFERENCES `superstore`.`tbl_products` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION);

```

3. Seguim editant el full de càlcul per tal d'extreure'n les dades. Seguim el següent procediment:
4. Creació de la taula **"tbl\_countries"**
  - a) Crear la fitxa **"tbl\_countries"**
  - b) Copiar la columna de la fitxa **"Orders"** -> **"Country"** a la columna **B** de la fitxa **"tbl\_countries"**.
  - c) Eliminar duplicats ( Menú **"Datos"** -> **"Quitar duplicados"** ).

d) Tenim com a resultat la taula següent

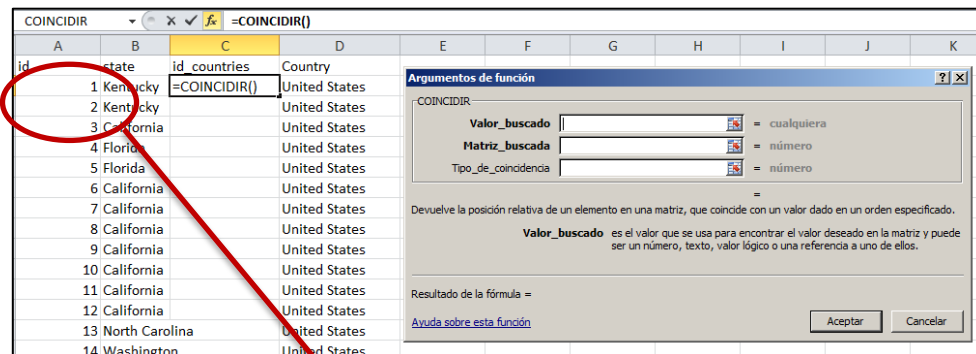
A	B
id	country
1	United States

Il·lustració 1: `tbl_countries`

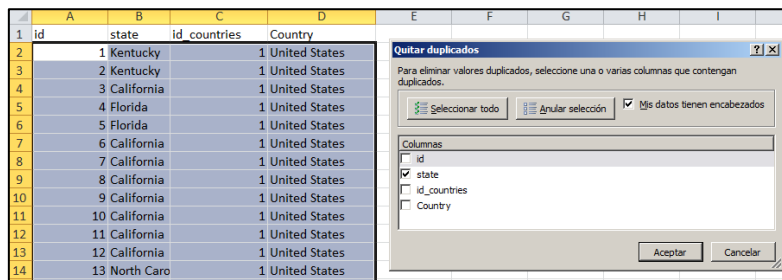
5. Creació de la taula `"tbl_states"`.

- Crear la fitxa `"tbl_states"`.
- Copiar la columna de la fitxa `"Orders"` -> `"States"` a la columna B de la fitxa `"tbl_states"` i la columna de la fitxa `"Orders"` -> `"Country"` a la columna D de la fitxa `"tbl_states"`.
- A la columna C de la fitxa `"tbl_states"` afegir la fórmula: `COINCIDIR();`

`=COINCIDIR(D2;tbl_countries!$B$2:$B$2;0)`



d) Eliminar duplicats ( Menú `"Datos"` -> `"Quitar duplicados"`) seleccionem les columnes A,B,C i D però indiquem que només la columna `"state"` és la que té duplicats.



e) Finalment ens queda la taula següent:

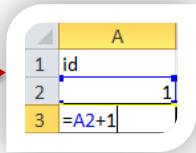
	A	B	C
1	id	state	id_countries
2		1 Kentucky	1
3		2 California	1
4		3 Florida	1
5		4 North Caro	1
6		5 Washingto	1
7		6 Texas	1
8		7 Wisconsin	1
9		8 Utah	1
10		9 Nebraska	1

Il·lustració 2: tbl\_states

6. Creació de taula **"tbl\_regions"**

- Crear la fitxa **"tbl\_regions"**.
- Copiar la columna de la fitxa **"Orders"** -> **"Regions"** a la columna **B** de la fitxa **"tbl\_regions"**
- Eliminar duplicats ( Menú **"Datos"**-> **"Quitar duplicados"** ).

	A	B
1	id	region
2		1 South
3		2 West
4		3 Central
5		4 East



- Finalment ens queda la taula següent:

	A	B
1	id	region
2		1 South
3		2 West
4		3 Central
5		4 East

Il·lustració 3: tbl\_regions

7. Creació de la taula **"tbl\_cities"**

- Crear la fitxa **"tbl\_cities"**.
- Copiar la columna de la fitxa **"Orders"** -> **"City"** a la columna **B** de la fitxa **"tbl\_cities"**.
- Copiar la columna de la fitxa **"Orders"** -> **"Postal Code"** a la columna **C** de la fitxa **"tbl\_cities"**.
- Afegir l'etiqueta **"id\_states"** a la columna **"D"**.
- Afegir l'etiqueta **"id\_regions"** a la columna **"E"**

	A	B	C	D	E
1	id	city	Postal Code	id_states	id_regions
2		Henderson		42420	
3		Henderson		42420	
4		Los Angeles		90036	
5		Fort Lauderdale		33311	
6		Fort Lauderdale		33311	
7		Los Angeles		90032	
8		Los Angeles		90032	

f) Copiar la columna de la fitxa **“Orders”** -> **“States”** a la columna **“F”**

	A	B	C	D	E	F
1	id	city	Postal Code	id_states	id_regions	State
2		Henderson		42420		Kentucky
3		Henderson		42420		Kentucky
4		Los Angeles		90036		California
5		Fort Lauderdale		33311		Florida
6		Fort Lauderdale		33311		Florida
7		Los Angeles		90032		California
8		Los Angeles		90032		California
9		Los Angeles		90032		California

g) A la columna **D** de la fitxa **“tbl\_cities”** afegir la fórmula: COINCIDIR();

=COINCIDIR(F2;tbl\_states!\$B\$2:\$B\$50;0)

	A	B	C	D	E	F	G	H	I	J	K	L
1	id	city	Postal Code	id_states	id_regions	State						
2		Henderson		=COINCIDIR(F2;tbl_states!\$B\$2:\$B\$50;0)		Kentucky						
3		Henderson			1	Kentucky						
4		Los Angeles			2	California						
5		Fort Lauderdale			3	Florida						
6		Fort Lauderdale			3	Florida						
7		Los Angeles			2	California						
8		Los Angeles			2	California						
9		Los Angeles			2	California						
10		Los Angeles			2	California						
11		Los Angeles			2	California						
12		Los Angeles			2	California						
13		Los Angeles			2	California						
14		Concord			4	North Carolina						

**Argumentos de función**

COINCIDIR

Valor\_buscado: 2 = "Kentucky"

Matriz\_buscada: tbl\_states!\$B\$2:\$B\$50 = ("Kentucky";"California";"Florida";"No...")

Tipo\_de\_coincidencia: 0 = 0

= 1

Devuelve la posición relativa de un elemento en una matriz, que coincide con un valor dado en un orden especificado.

Valor\_buscado es el valor que se usa para encontrar el valor deseado en la matriz y puede ser un número, texto, valor lógico o una referencia a uno de ellos.

Resultado de la fórmula = 1

[Ayuda sobre esta función](#)

Aceptar Cancelar

h) Copiar la columna de la fitxa **“Orders”** -> **“Region”** a la columna **“G”**

	A	B	C	D	E	F	G
1	id	city	Postal Code	id_states	id_regions	State	Region
2		Henderson		42420	1	Kentucky	South
3		Henderson		42420	1	Kentucky	South
4		Los Angeles		90036	2	California	West
5		Fort Lauderdale		33311	3	Florida	South
6		Fort Lauderdale		33311	3	Florida	South
7		Los Angeles		90032	2	California	West
8		Los Angeles		90032	2	California	West
9		Los Angeles		90032	2	California	West
10		Los Angeles		90032	2	California	West

i) A la columna **E** de la fitxa **“tbl\_cities”** afegir la fórmula: COINCIDIR();

=COINCIDIR(G2;tbl\_regions!\$B\$2:\$B\$5;0)

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	id	city	Postal Code	id_states	id_regions	State	Region						
2		Henderson		42420	=COINCIDIR(G2;tbl_regions!\$B\$2:\$B\$5;0)	Kentucky	South						
3		Henderson		42420	1	Kentucky	South						
4		Los Angeles		90036	2	California	West						
5		Fort Lauderdale		33311	3	Florida	South						
6		Fort Lauderdale		33311	3	Florida	South						
7		Los Angeles		90032	2	California	West						
8		Los Angeles		90032	2	California	West						
9		Los Angeles		90032	2	California	West						
10		Los Angeles		90032	2	California	West						
11		Los Angeles		90032	2	California	West						
12		Los Angeles		90032	2	California	West						
13		Los Angeles		90032	2	California	West						
14		Concord		28027	4	North Carolina	South						
15		Seattle		98103	5	Washington	West						
16		Fort Worth		76106	6	Texas	Central						

**Argumentos de función**

COINCIDIR

Valor\_buscado: G2 = "South"

Matriz\_buscada: tbl\_regions!\$B\$2:\$B\$5 = ("South";"West";"Central";"East")

Tipo\_de\_coincidencia: 0 = 0

= 1

Devuelve la posición relativa de un elemento en una matriz, que coincide con un valor dado en un orden especificado.

Valor\_buscado es el valor que se usa para encontrar el valor deseado en la matriz y puede ser un número, texto, valor lógico o una referencia a uno de ellos.

Resultado de la fórmula = 1

[Ayuda sobre esta función](#)

Aceptar Cancelar

- j) Eliminar duplicats ( Menú **"Datos"**-> **"Quitar duplicados"**) seleccionem les columnes A,B,C,D,E,F i G però indiquem que només la columna **"city"** és la que té duplicats.

	A	B	C	D	E	F	G	H	I	J
1	id	city	postalCode	id_states	id_regions	State	Region			
2	1	Henderson	42420	1	1	Kentucky	South			
3	2	Los Angeles	90036	2	2	California	West			
4	3	Fort Lauderdale	33311	3	1	Florida	South			
5	4	Concord	28027	4	1	North Carolina	South			
6	5	Seattle	98103	5						
7	6	Fort Worth	76106	6						
8	7	Madison	53711	7						
9	8	West Jordan	84084	8						
10	9	San Francisco	94109	2						
11	10	Fremont	68025	9						
12	11	Philadelphia	19140	10						
13	12	Orem	84057	8						
14	13	Houston	77095	6						
15	14	Richardson	75080	6						
16	15	Naperville	60540	11						
17	16	Melbourne	32935	3						
18	17	Essex	55122	12						

**Quitar duplicados**

Para eliminar valores duplicados, seleccione una o varias columnas que contengan duplicados.

☒ Mis datos tienen encabezados

Columnas

☐ id  
☒ city  
☐ postalCode  
☐ id\_states  
☐ id\_regions

- k) Finalment afegim la clau primària i ens queda la taula següent

	A	B	C	D	E
1	id	city	postalCode	id_states	id_regions
2	1	Henderson	42420	1	1
3	2	Los Angeles	90036	2	2
4	3	Fort Lauderdale	33311	3	1
5	4	Concord	28027	4	1
6	5	Seattle	98103	5	2
7	6	Fort Worth	76106	6	3
8	7	Madison	53711	7	3
9	8	West Jordan	84084	8	2
10	9	San Francisco	94109	2	2
11	10	Fremont	68025	9	3
12	11	Philadelphia	19140	10	4
13	12	Orem	84057	8	2
14	13	Houston	77095	6	3

**A**

1 id

2

3 =A2+1

Il·lustració 4: tbl\_cities

## 8. Creació de la taula "tbl\_categories"

- Crear la fitxa **"tbl\_categories"**
- Posem la columna **"Orders"** -> **"Category"** a la columna **"B"**
- Eliminem el duplicats i ens queda :

	A	B
1	id	category
2		1 Furniture
3		2 Office Supplies
4		3 Technology

- Afegim a la columna **B** el contingut de **"Orders"** -> **"Sub-Category"** i al mateix nivell a la columna **"D"** hi posem el contingut de **"Orders"**-> **"Category"** de manera que ens quedi els valors aparellats igual com es troben en la fitxa original **"Orders"**. A continuació es mostra com ens ha de quedar:

	A	B	C	D
1	id	category	id_category	root_Category
2		1 Furniture		
3		2 Office Supplies		
4		3 Technology		
5		Bookcases		Furniture
6		Chairs		Furniture
7		Labels		Office Supplies
8		Tables		Furniture
9		Storage		Office Supplies
10		Furnishings		Furniture
11		Art		Office Supplies
12		Phones		Technology
13		Binders		Office Supplies
14		Appliances		Office Supplies
15		Tables		Furniture
16		Phones		Technology
17		Paper		Office Supplies
18		Binders		Office Supplies
19		Appliances		Office Supplies

- e) Seleccionem les columnes A,B,C,D i eliminem duplicats però indicant que només la columna “**category**” és la que té duplicats.

	A	B	C	D	E	F	G	H
1	id	category	id_category	root_Category				
2		1 Furniture						
3		2 Office Supplies						
4		3 Technology						
5		Bookcases		Furniture				
6		Chairs		Furniture				
7		Labels		Office Supplies				
8		Tables		Furniture				
9		Storage		Office Supplies				
10		Furnishings		Furniture				
11		Art		Office Supplies				
12		Phones		Technology				
13		Binders		Office Supplies				
14		Appliances		Office Supplies				
15		Tables		Furniture				
16		Phones		Technology				
17		Paper		Office Supplies				
18		Binders		Office Supplies				

- f) Afegim a la columna **C** l'etiqueta “**id\_categories**” i hi definim la formula COINCIDIR();

=COINCIDIR(D5;\$B\$2:\$B\$21;0)

	A	B	C	D	E	F	G	H	I
1	id	category	id_category	root_Category					
2		1 Furniture	null						
3		2 Office Supplies	null						
4		3 Technology	null						
5		4 Bookcases	=D5:\$B\$21;0	Furniture					
6		5 Chairs		1 Furniture					
7		6 Labels		2 Office Supplies					
8		7 Tables		1 Furniture					
9		8 Storage		2 Office Supplies					
10		9 Furnishings		1 Furniture					
11		10 Art		2 Office Supplies					
12		11 Phones		3 Technology					
13		12 Binders		2 Office Supplies					
14		13 Appliances		2 Office Supplies					
15		14 Paper		2 Office Supplies					
16		15 Accessories		3 Technology					
17		16 Envelopes		2 Office Supplies					
18		17 Fasteners		2 Office Supplies					
19		18 Supplies		2 Office Supplies					
20		19 Machines		3 Technology					

- g) Afegim la clau primària en la columna **A** i al final ens queda la taula:



	A	B	C
1	id	category	id_category
2		1 Furniture	null
3		2 Office Supplies	null
4		3 Technology	null
5		4 Bookcases	1
6		5 Chairs	1
7		6 Labels	2
8		7 Tables	1
9		8 Storage	2
10		9 Furnishings	1
11		10 Art	2
12		11 Phones	3
13		12 Binders	2
14		13 Appliances	2
15		14 Paper	2
16		15 Accessories	3
17		16 Envelopes	2
18		17 Fasteners	2
19		18 Supplies	2
20		19 Machines	3
21		20 Copiers	3

Modifiquem els 'null' per \N. Després quan es faci la importació amb el LOAD DATA ens servirà per indicar que el valor és NULL

	A
1	id
2	
3	=A2+1

Il·lustració 5: tbl\_categories

#### 9. Creació de la taula "tbl\_customers"

- Crear la fitxa "**tbl\_customers**".
- Posem la columna "**Orders**" -> "**Customer ID**" a la columna "**B**" i l'anomenem "**code**".
- Posem la columna "**Orders**" -> "**Customer Name**" a la columna "**C**" i l'anomenem "**name**".
- Posem la columna "**Orders**" -> "**Segment**" a la columna "**D**" i l'anomenem "**segment**".
- Posem la columna "**Orders**" -> "**City**" a la columna "**F**".
- A la columna "**E**" l'hi posem l'etiqueta "**id\_cities**".
- Seleccionem les columnes A,B,C,D,E i F i eliminem duplicats però indicant que només la columna "**code**" és la que té duplicats.

	A	B	C	D	E	F	G	H	I
1	id	code	name	segment	id_cities	City			
2		CG-12520	Claire Gute	Consumer		Henderson			
3		CG-12520	Claire Gute	Consumer		Henderson			
4		DV-13045	Darrin Van Huff	Corporate		Los Angeles			
5		SO-20335	Sean O'Donnell	Consumer		Fort Lauderdale			
6		SO-20335	Sean O'Donnell	Consumer		Fort Lauderdale			
7		BH-11710	Brosina Hoffman	Consumer		Los Angeles			
8		BH-11710	Brosina Hoffman	Consumer					
9		BH-11710	Brosina Hoffman	Consumer					
10		BH-11710	Brosina Hoffman	Consumer					
11		BH-11710	Brosina Hoffman	Consumer					
12		BH-11710	Brosina Hoffman	Consumer					
13		BH-11710	Brosina Hoffman	Consumer					
14		AA-10480	Andrew Allen	Consumer					
15		IM-15070	Irene Maddox	Consumer					
16		HP-14815	Harold Pawlan	Home Office					
17		HP-14815	Harold Pawlan	Home Office					
18		PK-19075	Pete Kriz	Consumer					
19		AG-10270	Alejandro Grove	Consumer					

**Quitar duplicados**

Para eliminar valores duplicados, seleccione una o varias columnas que contengan duplicados.

☒ Seleccionar todo ☐ Anular selección ☒ Mis datos tienen encabezados

Columnas

☐ id

☒ code

☐ name

☐ segment

☐ id\_cities

Aceptar Cancelar

- Afegim a la columna E la formula COINCIDIR();

=COINCIDIR(F2;tbl\_cities!\$B\$2:\$B\$532;0)

	A	B	C	D	E	F	G	H	I	J
1	id	code	name	segment	id_cities	City				
2		CG-12520	Claire Gute	Consumer	=COINCIDIR(F2;tbl_cities!\$B\$2:\$B\$532;0)					
3		DV-13045	Darrin Van Huff	Corporate		Los Angeles				
4		SO-20335	Sean O'Donnell	Consumer		Fort Lauderdale				
5		BH-11710	Brosina Hoffman	Consumer		Los Angeles				
6		AA-10480	Andrew Allen	Consumer		Concord				
7		IM-15070	Irene Maddox	Consumer						
8		HP-14815	Harold Pawlan	Home Office						
9		PK-19075	Pete Kriz	Consumer						
10		AG-10270	Alejandro Grove	Consumer						
11		ZD-21925	Zuschuss Donatelli	Consumer						
12		KB-16585	Ken Black	Corporate						
13		SF-20065	Sandra Flanagan	Consumer						
14		EB-13870	Emily Burns	Consumer						
15		EH-13945	Eric Hoffmann	Consumer						
16		TB-21520	Tracy Blumstein	Consumer						
17		MA-17560	Matt Abelman	Home Office						
18		GH-14485	Gene Hale	Corporate						
19		SN-20710	Steve Nguyen	Home Office						

**Argumentos de función**

COINCIDIR

Valor\_buscado: F2 = "Henderson"

Matriz\_buscada: tbl\_cities!\$B\$2:\$B\$532 = ("Henderson";"Los Angeles";"Fort Lauderdale";"Los Angeles";"Concord")

Tipo\_de\_coincidencia: 0 = 1

Devuelve la posición relativa de un elemento en una matriz, que coincide con un valor dado en un orden especificado.

**Tipo\_de\_coincidencia** es un número 1, 0, -1 que indica el valor que se devolverá.

Resultado de la fórmula = 1

[Ayuda sobre esta función](#)

Aceptar Cancelar

b. Al final afegim la clau principal per la columna **A** i ens queda la taula següent:

	A	B	C	D	E
1	id	code	name	segment	id_cities
2		1 CE-12520	Claire Gute	Consumer	1
3		2 DV-13045	Darrin Van Huff	Corporate	2
4		3 SO-20335	Sean O'Donnell	Consumer	3
5		4 BH-11710	Brosina Hoffman	Consumer	2
6		5 AA-10480	Andrew Allen	Consumer	4
7		6 IM-15070	Irene Maddox	Consumer	5
8		7 HP-14815	Harold Pawlan	Home Office	6
9		8 PK-19075	Pete Kriz	Consumer	7
10		9 AG-10270	Alejandro Grove	Consumer	8
11		10 ZD-21925	Zuschuss Donatelli	Consumer	9
12		11 KB-16585	Ken Black	Corporate	10
13		12 SF-20065	Sandra Flanagan	Consumer	11
14		13 EB-13870	Emily Burns	Consumer	12
15		14 EH-13945	Eric Hoffmann	Consumer	2
16		15 TB-21520	Tracy Blumstein	Consumer	13
17		16 MA-17560	Matt Abelman	Home Office	13
18		17 GH-14485	Gene Hale	Corporate	14
19		18 SN-20710	Steve Nguyen	Home Office	13
20		19 LC-16930	Linda Cazamias	Corporate	15
21		20 RA-19885	Ruben Ausman	Corporate	2
22		21 ES-14080	Erin Smith	Corporate	16
23		22 ON-18715	Odella Nelson	Corporate	17
24		23 PO-18865	Patrick O'Donnell	Consumer	18

### Il·lustració 6: tbl customers

## 10. Creació de la taula “tbl\_products”

- Creem la fitxa ***"tbl\_products"***.
- Posem la columna ***"Orders"*** -> ***"Product ID"*** a la columna ***"B"*** i l'anomenem ***"code"***.
- Posem la columna ***"Orders"*** -> ***"Product Name"*** a la columna ***"C"*** i l'anomenem ***"name"***.
- Posem la columna ***"Orders"*** -> ***"Sub-Category"*** a la columna ***"E"***
- A la columna ***"D"*** li posem l'etiqueta ***"id\_categories"***. A continuació es mostra com ens va quedant:

	A	B	C	D	E
1	id	code	name	id_categories	Sub-Category
2		FUR-BO-10001798	Bush Somerset Collection Bookcase		Bookcases
3		FUR-CH-10000454	Hon Deluxe Fabric Upholstered Stacking Chairs, Rounded Back		Chairs
4		OFF-LA-10000240	Self-Adhesive Address Labels for Typewriters by Universal		Labels
5		FUR-TA-10000577	Bretford CR4500 Series Slim Rectangular Table		Tables
6		OFF-ST-10000760	Eldon Fold 'N Roll Cart System		Storage
7		FUR-FU-10001487	Eldon Expressions Wood and Plastic Desk Accessories, Cherry Wood		Furnishings
8		OFF-AR-10002833	Newell 322		Art
9		TEC-PH-10002275	Mitel 5320 IP Phone VoIP phone		Phones
10		OFF-BI-10003910	DXL Angle-View Binders with Locking Rings by Samsill		Binders

- f) Seleccionem les columnes A,B,C,D i E , i eliminem duplicats però indicant que només la columna “code” és la que té duplicats.

	A	B	C	D	E
1	id	code	name	id_categories	Sub-Category
2		FUR-BO-10001798	Bush Somerset Collection Bookcase		Bookcases
3		FUR-CH-10000454	Hon Deluxe Fabric Upholstered Stacking Chairs, Rounded Back		Chairs
4		OFF-LA-10000240	Self-Adhesive Address Labels for Typewriters by Universal		Labels
5		FUR-TA-10000577	Bretford CR4500 Series Slim Rectangular Table		Tables
6		OFF-ST-10000760	Eldon Fold 'N Roll Cart System		Storage
7		FUR-FU-10001487	Eldon Expressions Wood and Plastic Desk Accessories, Cherry Wood		Furnishings
8		OFF-AR-10002833	Newell 322		Art
9		TEC-PH-10002275	Mitel 5320 IP Phone VoIP phone		Phones
10		OFF-BI-10003910	DXL Angle-View Binders with Locking Rings by Samsill		Binders
11		OFF-AP-10002892	Belkin F5C206VTEL 6 Outlet Surge Protector		Technology
12		FUR-TA-10001539	Chromcraft Rectangular Conference Table		Tables
13		TEC-PH-10002033	Konftel 250 Conference phone - Charcoal		Phones
14		OFF-PA-10002365	Xerox 1967		Office Supplies
15		OFF-BI-10003656	Fellowes PB200 Plastic Comb Binding Machine		Office Supplies
16		OFF-AP-10002311	Holmes Replacement Filter for HEPA Air Cleaner, Very Large Room,		Air Cleaners
17		OFF-BI-10000756	Storex DuraTech Recycled Plastic Frosted Binders		Binders
18		OFF-ST-10004186	Stur-D-Stor Shelving, Vertical 5-Shelf: 72"H x 36"W x 18 1/2"D		Storage
19		OFF-ST-10000107	Fellowes Super Stor/Drawer		Storage
20		OFF-AR-10003056	Newell 341		Art

- c. Afegim a la columna D la formula COINCIDIR();

=COINCIDIR(E2;tbl\_categories!\$B\$2:\$B\$21;0)

	A	B	C	D	E
1	id	code	name	id_categories	Sub-Category
2		FUR-BO-10001798	Bush Somerset Collection Bookcase	=COINCIDIR(E2;tbl_categories!\$B\$2:\$B\$21;0)	Bookcases
3		FUR-CH-10000454	Hon Deluxe Fabric Upholstered Stacking Chairs, Rounded Back		Chairs
4		OFF-LA-10000240	Self-Adhesive Address Labels for Typewriters by Universal		Labels
5		FUR-TA-10000577	Bretford CR4500 Series Slim Rectangular Table		Tables
6		OFF-ST-10000760	Eldon Fold 'N Roll Cart System		Storage
7		FUR-FU-10001487	Eldon Expressions Wood and Plastic Desk Accessories, Cherry Wood		Furnishings
8		OFF-AR-10002833	Newell 322		Art
9		TEC-PH-10002275	Mitel 5320 IP Phone VoIP phone		Phones
10		OFF-BI-10003910	DXL Angle-View Binders with Locking Rings by Samsill		Binders
11		OFF-AP-10002892	Belkin F5C206VTEL 6 Outlet Surge Protector		Technology
12		FUR-TA-10001539	Chromcraft Rectangular Conference Table		Tables
13		TEC-PH-10002033	Konftel 250 Conference phone - Charcoal black		Phones
14		OFF-PA-10002365	Xerox 1967		Office Supplies
15		OFF-BI-10003656	Fellowes PB200 Plastic Comb Binding Machine		Office Supplies
16		OFF-AP-10002311	Holmes Replacement Filter for HEPA Air Cleaner, Very Large Room,		Air Cleaners
17		OFF-BI-10000756	Storex DuraTech Recycled Plastic Frosted Binders		Binders
18		OFF-ST-10004186	Stur-D-Stor Shelving, Vertical 5-Shelf: 72"H x 36"W x 18 1/2"D		Storage
19		OFF-ST-10000107	Fellowes Super Stor/Drawer		Storage
20		OFF-AR-10003056	Newell 341		Art

- d. Afegim la clau principal per la columna A i ens queda la taula següent:

	A	B	C	D
1	id	code	name	id_categories
2		FUR-BO-10001798	Bush Somerset Collection Bookcase	4
3		FUR-CH-10000454	Hon Deluxe Fabric Upholstered Stacking Chairs, Rounded Back	5
4		OFF-LA-10000240	Self-Adhesive Address Labels for Typewriters by Universal	6
5		FUR-TA-10000577	Bretford CR4500 Series Slim Rectangular Table	7
6		OFF-ST-10000760	Eldon Fold 'N Roll Cart System	8
7		FUR-FU-10001487	Eldon Expressions Wood and Plastic Desk Accessories, Cherry Wood	9
8		OFF-AR-10002833	Newell 322	10
9		TEC-PH-10002275	Mitel 5320 IP Phone VoIP phone	11
10		OFF-BI-10003910	DXL Angle-View Binders with Locking Rings by Samsill	12
11		OFF-AP-10002892	Belkin F5C206VTEL 6 Outlet Surge Protector	13
12		FUR-TA-10001539	Chromcraft Rectangular Conference Table	7
13		TEC-PH-10002033	Konftel 250 Conference phone - Charcoal black	11
14		OFF-PA-10002365	Xerox 1967	14
15		OFF-BI-10003656	Fellowes PB200 Plastic Comb Binding Machine	12
16		OFF-AP-10002311	Holmes Replacement Filter for HEPA Air Cleaner, Very Large Room,	13
17		OFF-BI-10000756	Storex DuraTech Recycled Plastic Frosted Binders	12
18		OFF-ST-10004186	Stur-D-Stor Shelving, Vertical 5-Shelf: 72"H x 36"W x 18 1/2"D	8
19		OFF-ST-10000107	Fellowes Super Stor/Drawer	8
20		OFF-AR-10003056	Newell 341	10
21		TEC-PH-10001949	Cisco SPA 501G IP Phone	11
22		OFF-BI-10002215	Wilson Jones Hanging View Binder, White, 1"	12
23		OFF-AR-10000246	Newell 318	10
24		OFF-AP-10001492	Acco Six-Outlet Power Strip, 4' Cord Length	13

Il·lustració 7: tbl\_products

## 11. Creació de la taula "tbl\_orders"

- Creem la fitxa "tbl\_orders".
- Posem la columna "Orders" -> "Order ID" a la columna "B" i l'anomenem "code".
- Posem la columna "Orders" -> "Order Date" a la columna "C" i l'anomenem "orderDate".
- Posem la columna "Orders" -> "Ship Date" a la columna "D" i l'anomenem "shipDate".
- Posem la columna "Orders" -> "Ship Mode" a la columna "E" i l'anomenem "shipMode".
- Posem la columna "Orders" -> "Customer ID" a la columna "G".
- La columna "F" li posem l'etiqueta "id\_customers". A continuació es mostra com ens va quedant:

	A	B	C	D	E	F	G
1	id	code	orderDate	shipDate	ship Mode	id_customers	Customer ID
2		CA-2016-152156	08/11/2016	11/11/2016	Second Class		CG-12520
3		CA-2016-152156	08/11/2016	11/11/2016	Second Class		CG-12520
4		CA-2016-138688	12/06/2016	16/06/2016	Second Class		DV-13045
5		US-2015-108966	11/10/2015	18/10/2015	Standard Class		SO-20335
6		US-2015-108966	11/10/2015	18/10/2015	Standard Class		SO-20335
7		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710
8		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710
9		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710

- Seleccionem les columnes A,B,C,D,E i F , i eliminem duplicats però indicant que només la columna "code" és la que té duplicats.

	A	B	C	D	E	F	G	H	I
1	id	code	orderDate	shipDate	ship Mode	id_customers	Customer ID		
2		CA-2016-152156	08/11/2016	11/11/2016	Second Class		CG-12520		
3		CA-2016-152156	08/11/2016	11/11/2016	Second Class		CG-12520		
4		CA-2016-138688	12/06/2016	16/06/2016	Second Class		DV-13045		
5		US-2015-108966	11/10/2015	18/10/2015	Standard Class		SO-20335		
6		US-2015-108966	11/10/2015	18/10/2015	Standard Class		SO-20335		
7		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710		
8		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710		
9		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710		
10		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710		
11		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710		
12		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710		
13		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710		
14		CA-2017-114412	15/04/2017	20/04/2017	Standard Class		AA-10480		
15		CA-2016-161389	05/12/2016	10/12/2016	Standard Class		AA-10480		
16		US-2015-118983	22/11/2015	26/11/2015	Standard Class		AA-10480		
17		US-2015-118983	22/11/2015	26/11/2015	Standard Class		AA-10480		
18		CA-2014-105893	11/11/2014	18/11/2014	Standard Class		AA-10480		
19		CA-2014-167164	13/05/2014	15/05/2014	Second Class		AA-10480		

- Afegim a la columna F la formula COINCIDIR();

=COINCIDIR(G2;tbl\_customers!\$B\$2:\$B\$794;0)

	A	B	C	D	E	F	G	H	I	J
1	id	code	orderDate	shipDate	ship Mode	id_customers	Customer ID			
2		CA-2016-152156	08/11/2016	11/11/2016	Second Class	=COINCIDIR(G2;tbl_customers!\$B\$2:\$B\$794;0)	CG-12520			
3		CA-2016-138688	12/06/2016	16/06/2016	Second Class		DV-13045			
4		US-2015-108966	11/10/2015	18/10/2015	Standard Class		SO-20335			
5		CA-2014-115812	09/06/2014	14/06/2014	Standard Class		BH-11710			
6		CA-2017-114412	15/04/2017	20/04/2017	Standard Class		AA-10480			
7		CA-2016-161389	05/12/2016	10/12/2016	Standard Class		AA-10480			
8		US-2015-118983	22/11/2015	26/11/2015	Standard Class		AA-10480			
9		CA-2014-105893	11/11/2014	18/11/2014	Standard Class		AA-10480			
10		CA-2014-167164	13/05/2014	15/05/2014	Second Class		AA-10480			
11		CA-2014-143336	27/08/2014	01/09/2014	Second Class		AA-10480			
12		CA-2016-137330	09/12/2016	13/12/2016	Standard Class		AA-10480			
13		US-2017-156909	16/07/2017	18/07/2017	Second Class		AA-10480			
14		CA-2015-106320	25/09/2015	30/09/2015	Standard Class		AA-10480			
15		CA-2016-121755	16/01/2016	20/01/2016	Second Class		AA-10480			
16		US-2015-150630	17/09/2015	21/09/2015	Standard Class		AA-10480			
17		CA-2017-107727	19/10/2017	23/10/2017	Second Class		AA-10480			
18		CA-2016-117590	08/12/2016	10/12/2016	First Class		AA-10480			
19		CA-2015-117415	27/12/2015	31/12/2015	Standard Class		AA-10480			

j) Al final afegim la clau principal per la columna A i ens queda la taula següent:

	A	B	C	D	E	F
1	id	code	orderDate	shipDate	ship Mode	id_customers
2	1	CA-2016-152156	08/11/2016	11/11/2016	Second Class	1
3	2	CA-2016-138688	12/06/2016	16/06/2016	Second Class	2
4	3	US-2015-108966	11/10/2015	18/10/2015	Standard Class	3
5	4	CA-2014-115812	09/06/2014	14/06/2014	Standard Class	4
6	5	CA-2017-114412	15/04/2017	20/04/2017	Standard Class	5
7	6	CA-2016-161389	09/12/2016	10/12/2016	Standard Class	6
8	7	US-2015-118983	22/11/2015	26/11/2015	Standard Class	7
9	8	CA-2014-105893	11/11/2014	10/11/2014	Standard Class	8
10	9	CA-2014-167164	13/05/2014	15/05/2014	Second Class	9
11	10	CA-2014-143336	27/08/2014	01/09/2014	Second Class	10
12	11	CA-2016-137330	09/12/2016	13/12/2016	Standard Class	11
13	12	US-2017-156909	16/07/2017	18/07/2017	Second Class	12
14	13	CA-2015-106320	25/09/2015	30/09/2015	Standard Class	13
15	14	CA-2016-121755	16/01/2016	20/01/2016	Second Class	14
16	15	US-2015-150630	17/09/2015	21/09/2015	Standard Class	15
17	16	CA-2017-107727	19/10/2017	23/10/2017	Second Class	16
18	17	CA-2016-117590	08/12/2016	10/12/2016	First Class	17
19	18	CA-2015-117415	27/12/2015	31/12/2015	Standard Class	18
20	19	CA-2017-120999	10/09/2017	15/09/2017	Standard Class	19
21	20	CA-2016-101343	17/07/2016	22/07/2016	Standard Class	20
22	21	CA-2017-139619	19/09/2017	23/09/2017	Standard Class	21
23	22	CA-2016-118255	11/03/2016	13/03/2016	First Class	22
24	23	CA-2014-146703	20/10/2014	25/10/2014	Second Class	23
25	24	CA-2016-169194	20/06/2016	25/06/2016	Standard Class	24

A
1 id
2
3 =A2+1

Il·lustració 8: tbl\_orders

## 12. Crear taula "tbl\_orders\_products".

- Creem la fitxa "tbl\_orders\_products".
- A les columnes "B" i "C" les etiquetem amb "id\_orders" i "id\_products" respectivament
- Posem la columna "Orders" -> "Sales" a la columna "D" i l'anomenem "sales".
- Posem la columna "Orders" -> "Quantity" a la columna "E" i l'anomenem "quantity".
- Posem la columna "Orders" -> "Discount" a la columna "F" i l'anomenem "discount".
- Posem la columna "Orders" -> "Profit" a la columna "G" i l'anomenem "profit".
- Posem la columna "Orders" -> "Order ID" a la columna "H".
- Posem la columna "Orders" -> "Product ID" a la columna "I".

	A	B	C	D	E	F	G	H	I
1	id	id_orders	id_products	Sales	Quantity	Discount	Profit	Order ID	Product ID
2				261,96	2	0	41,9136	CA-2016-152156	FUR-BO-10001798
3				731,94	3	0	219,582	CA-2016-152156	FUR-CH-10000454
4				14,62	2	0	6,8714	CA-2016-138688	OFF-LA-10000240
5				957,5775	5	0,45	-383,031	US-2015-108966	FUR-TA-10000577
6				22,368	2	0,2	2,5164	US-2015-108966	OFF-ST-10000760
7				48,86	7	0	14,1694	CA-2014-115812	FUR-FU-10001487
8				7,28	4	0	1,9656	CA-2014-115812	OFF-AR-10002833
9				907,152	6	0,2	90,7152	CA-2014-115812	TEC-PH-10002275
10				18,504	3	0,2	5,7825	CA-2014-115812	OFF-BI-10003910
11				114,9	5	0	34,47	CA-2014-115812	OFF-AP-10002892
12				1706,184	9	0,2	85,3092	CA-2014-115812	FUR-TA-10001539
13				911,424	4	0,2	68,3568	CA-2014-115812	TEC-PH-10002033

i) A la columna B hi posem la formula COINCIDIR();

COINCIDIR(H2;tbl\_orders!\$B\$2:\$B\$5010;0)

	A	B	C	D	E	F	G	H	I	J
1	id	id_orders	id_products	Sales	Quantity	Discount	Profit	Order ID	Product ID	
2		355010;0		261,96	2	0	41,9136	CA-2016-152156	FUR-BO-10001798	
3			1	731,94	3	0	219,582	CA-2016-152156	FUR-CH-10000454	
4			2	14,62						
5			3	957,5775						
6			3	22,368						
7			4	48,86						
8			4	7,28						
9			4	907,152						
10			4	18,504						
11			4	114,9						
12			4	1706,184						
13			4	911,424						
14			5	15,552						
15			6	407,976						
16			7	68,81						

j) A la columna "C" hi afegim la formula COINCIDIR();

=COINCIDIR(I2;tbl\_products!\$B\$2:\$B\$1863;0)

	A	B	C	D	E	F	G	H	I	J
1	id	id_orders	id_products	Sales	Quantity	Discount	Profit	Order ID	Product ID	
2			351863;0	261,96	2	0	41,9136	CA-2016-152156	FUR-BO-10001798	
3			1	731,94	3	0	219,582	CA-2016-152156	FUR-CH-10000454	
4			2	14,62						
5			3	957,5775						
6			3	22,368						
7			4	48,86						
8			4	7,28						
9			4	907,152						
10			4	18,504						
11			4	114,9						
12			4	1706,184						
13			4	911,424						
14			5	15,552						
15			6	407,976						
16			7	68,81						

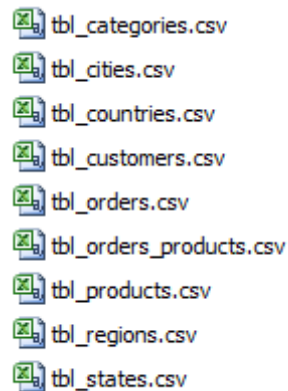
k) Al final afegim la clau principal per la columna A i ens queda la taula següent:

	A	B	C	D	E	F	G
1	id	id_orders	id_products	Sales	Quantity	Discount	Profit
2		1	1	1	261,96	2	0
3		2	1	2	731,94	3	0
4		3	2	3	14,62	2	0
5		4	3	4	957,5775	5	0,45
6		5	3	5	22,368	2	0,2
7		6	4	6	48,86	7	0
8		7	4	7	7,28	4	0
9		8	4	8	907,152	6	0,2
10		9	4	9	18,504	3	0,2
11		10	4	10	114,9	5	0
12		11	4	11	1706,184	4	0,2
13		12	4	12	911,424	4	0,2
14		13	5	13	15,552	3	0,2
15		14	6	14	407,976	3	0,2
16		15	7	15	68,81	5	0,8
17		16	7	16	2,544	3	0,8
18		17	8	17	665,88	6	0
19		18	9	18	55,5	2	0
20		19	10	19	8,56	2	0
21		20	10	20	213,48	3	0,2
22		21	10	21	22,72	4	0,2
23		22	11	22	19,46	7	0
24		23	11	23	60,34	7	0
25		24	12	24	71,372	2	0,3

	A
1	id
2	
3	=A2+1

Il·lustració 9: tbl\_orders\_products

13. Un cop totes les fitxes estan finalitzades les copiem i enganxem de nou però únicament els valors, d'aquesta manera no existeixen les formules i per tant podrem eliminar les columnes que teníem com a referències externes.
14. A partir d'aquí ens posicionem a cada una de les fitxes i les guardem en format "CSV" i les guardem en un directori concret. Per exemple en aquest exercici farem servir la ruta: "C:/IFCD0210/Projectes/superstore.com/bbdd". Haurem de veure que tenim la llista completa de fitxers com es mostra a continuació:



15. Ara afegim al fitxer anterior les instruccions per fer la importació:

```
-- Data import --
LOAD DATA INFILE "C:/IFCD0210/Projectes/superstore.com/bbdd/tbl_countries.csv"
INTO TABLE `superstore`.`tbl_countries`
CHARACTER SET utf8
FIELDS TERMINATED BY ';'
LINES TERMINATED BY '\n'
IGNORE 1 LINES;

-- Data import --
LOAD DATA INFILE "C:/IFCD0210/Projectes/superstore.com/bbdd/tbl_states.csv"
INTO TABLE `superstore`.`tbl_states`
CHARACTER SET utf8
FIELDS TERMINATED BY ';'
LINES TERMINATED BY '\n'
IGNORE 1 LINES;

-- Data import --
LOAD DATA INFILE "C:/IFCD0210/Projectes/superstore.com/bbdd/tbl_regions.csv"
INTO TABLE `superstore`.`tbl_regions`
CHARACTER SET utf8
FIELDS TERMINATED BY ';'
LINES TERMINATED BY '\n'
IGNORE 1 LINES;

-- Data import --
LOAD DATA INFILE "C:/IFCD0210/Projectes/superstore.com/bbdd/tbl_cities.csv"
INTO TABLE `superstore`.`tbl_cities`
CHARACTER SET utf8
FIELDS TERMINATED BY ';'
LINES TERMINATED BY '\n'
IGNORE 1 LINES;
```



```
-- Data import --
LOAD DATA INFILE "C:/IFCD0210/Projectes/superstore.com/bbdd/tbl_customers.csv"
INTO TABLE `superstore`.`tbl_customers`
CHARACTER SET utf8
FIELDS TERMINATED BY ';'
LINES TERMINATED BY '\n'
IGNORE 1 LINES;

-- Data import --
LOAD DATA INFILE "C:/IFCD0210/Projectes/superstore.com/bbdd/tbl_categories.csv"
INTO TABLE `superstore`.`tbl_categories`
CHARACTER SET utf8
FIELDS TERMINATED BY ';'
LINES TERMINATED BY '\n'
IGNORE 1 LINES;

-- Data import --
LOAD DATA INFILE "C:/IFCD0210/Projectes/superstore.com/bbdd/tbl_products.csv"
INTO TABLE `superstore`.`tbl_products`
CHARACTER SET utf8
FIELDS TERMINATED BY ';'
LINES TERMINATED BY '\n'
IGNORE 1 LINES;

-- Data import --
LOAD DATA INFILE "C:/IFCD0210/Projectes/superstore.com/bbdd/tbl_orders.csv"
INTO TABLE `superstore`.`tbl_orders`
CHARACTER SET utf8
FIELDS TERMINATED BY ';'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(id, code, @var1,@var2,shipMode,id_customers)
SET orderDate = str_to_date(@var1,'%d/%m/%Y') ,
shipDate = str_to_date(@var2,'%d/%m/%Y') ;

-- Data import --
LOAD DATA INFILE " C:/IFCD0210/Projectes/superstore.com/bbdd/tbl_orders_products.csv"
INTO TABLE `superstore`.`tbl_orders_products`
CHARACTER SET utf8
FIELDS TERMINATED BY ';'
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(id, id_orders, id_products ,@var1, quantity,@var2,@var3)
SET sales = REPLACE(@var1, ',', '.'), discount = REPLACE(@var2, ',', '.'),
profit=REPLACE(@var3, ',', '.');
```