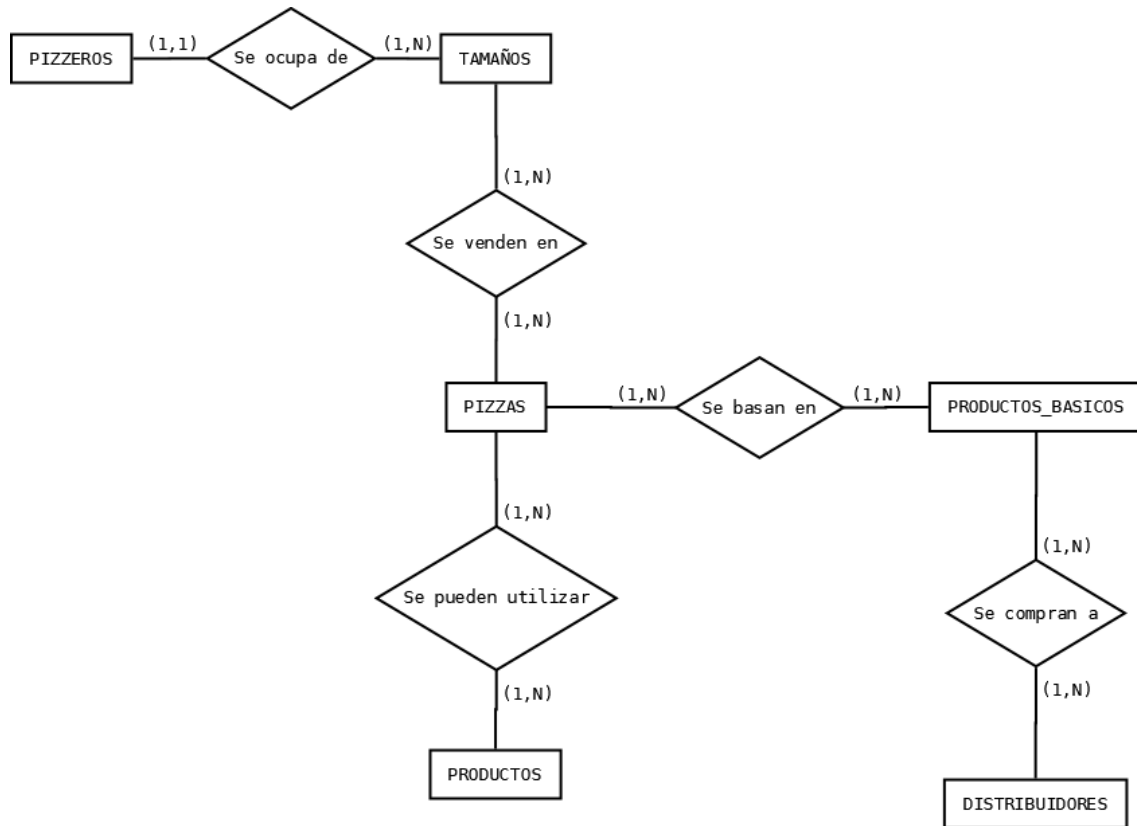


Soluciones Ejercicios 21 y 22. Pizzería.

Ejercicio 21:

A) Modelo E-R:



B) Diseño Físico Relacional:

```
create database pizzeria21;
use pizzeria21;

create table pizzas(
  cod_pizza numeric(3,0) not null,
  nombre_pizza varchar(30) not null,
  numero_ingredientes numeric(2),
  precio numeric(2,2) not null,
  constraint pk_pizzas primary key(cod_pizza)
);

create table productos_basicos(
  cod_pb numeric(2) not null,
  nombre_pb varchar(30) not null,
  constraint pk_productos_basicos primary key(cod_pb)
);

create table se_basan_en(
```

```

cod_pizza numeric(3,0) not null,
cod_pb numeric(2) not null,
constraint pk_se_basan_en primary key (cod_pizza, cod_pb),
constraint fk_se_basan_en1 foreign key (cod_pizza) references pizzas (co
d_pizza)
on delete cascade on update cascade,
constraint fk_se_basan_en2 foreign key (cod_pb) references
productos_basicos (cod_pb) on delete cascade on update cascade
);

```

```

create table productos(
cod_pr numeric(2) not null,
nombre_pr varchar(30) not null,
constraint pk_productos primary key(cod_pr)
);

```

```

create table se_pueden_utilizar_en(
cod_pizza numeric(3,0) not null,
cod_pr numeric(2) not null,
constraint pk_se_pueden_utilizar_en primary key(cod_pizza, cod_pr),
constraint fk_se_pueden_utilizar_en1 foreign key (cod_pizza)
references pizzas(cod_pizza) on delete cascade on update cascade,
constraint fk_se_pueden_utilizar_en2 foreign key(cod_pr) references
productos(cod_pr) on delete cascade on update cascade
);

```

```

create table distribuidores(
cod_d numeric (2,0) not null,
nombre_d varchar(30) not null,
tlf numeric(9),
cpostal numeric(5,0),
constraint pk_distribuidores primary key(cod_d)
);

```

```

create table compran(
cod_pb numeric(2) not null,
cod_d numeric(2,0) not null,
constraint pk_compran primary key(cod_pb, cod_d),
constraint fk_compran1 foreign key(cod_pb) references
productos_basicos(cod_pb) on delete cascade
on update cascade,
constraint fk_compran2 foreign key(cod_d) references
distribuidores(cod_d) on delete cascade on update cascade
);

```

```

create table pizzeros(
cod_pz numeric(2) not null,
nombre_pz varchar(30) not null,
edad numeric(3),

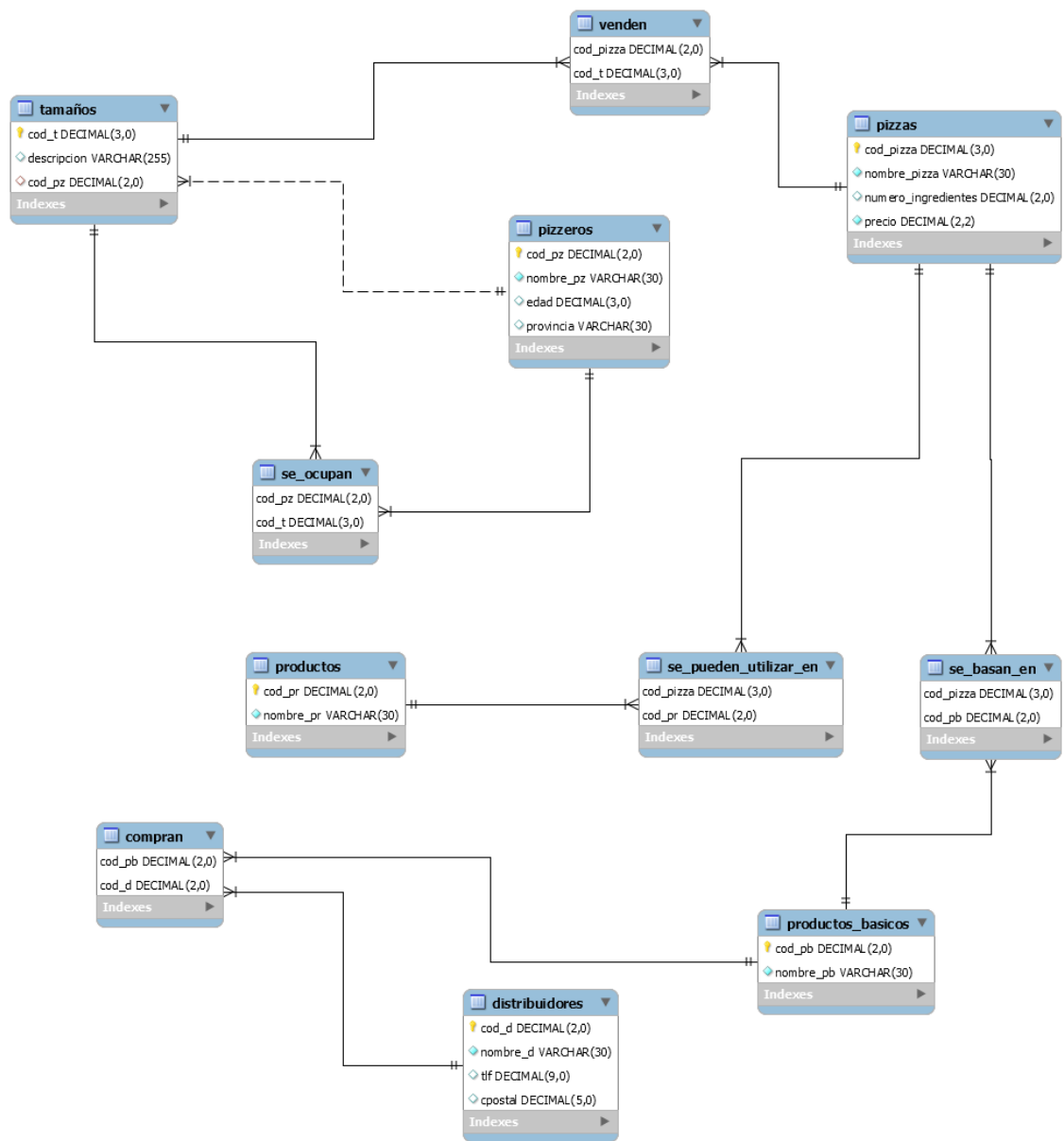
```

```
provincia varchar(30),  
constraint pk_pizzeros primary key(cod_pz)  
);
```

```
create table tamaños(  
cod_t numeric(3) not null,  
descripcion varchar(255),  
cod_pz numeric(2),  
constraint pk_tamaños primary key(cod_t),  
constraint fk_tamaños foreign key(cod_pz) references  
pizzeros(cod_pz) on delete cascade on update cascade  
);
```

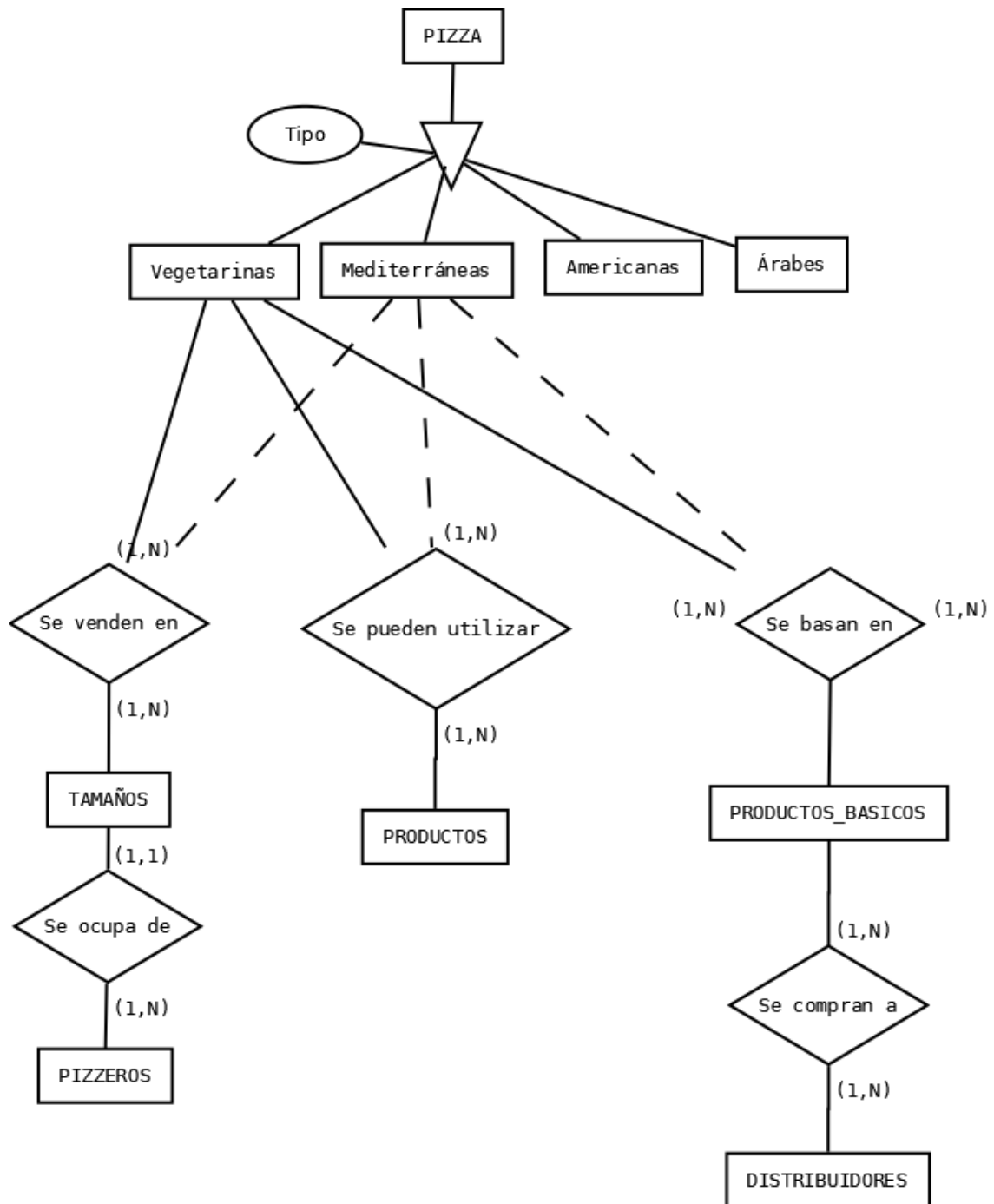
```
create table se_ocupan(  
cod_pz numeric(2) not null,  
cod_t numeric(3) not null,  
constraint pk_venden primary key(cod_pz, cod_t),  
constraint fk_ocupan1 foreign key(cod_pz) references  
pizzeros(cod_pz) on delete cascade  
on update cascade,  
constraint fk_ocupan2 foreign key(cod_t) references  
tamaños(cod_t) on delete cascade on update cascade  
);
```

```
create table venden(  
cod_pizza numeric(2) not null,  
cod_t numeric(3) not null,  
constraint pk_venden primary key(cod_pizza, cod_t),  
constraint fk_venden1 foreign key(cod_pizza) references  
pizzas(cod_pizza) on delete cascade  
on update cascade,  
constraint fk_venden2 foreign key(cod_t) references  
tamaños(cod_t) on delete cascade on update cascade  
);
```



Ejercicio 22:

A) Diagram E-R:



B) Modelo Físico Relacional:

```
create database pizzeria22;
use pizzeria22;

create table criterio_alimentacion(
  cod_criterio numeric(2) not null,
  nombre_criterio numeric(30),
  constraint pk_criterio primary key(cod_criterio)
);

create table pizzas(
  cod_pizza numeric(3,0) not null,
  nombre_pizza varchar(30) not null,
  numero_ingredientes numeric(2),
  precio numeric(2,2) not null,
  cod_criterio numeric(2) not null,
  constraint pk_pizzas primary key(cod_pizza),
  constraint fk_criterio foreign key (cod_criterio) references criterio_a
limentacion(cod_criterio)
on delete cascade on update cascade
);

create table productos_basicos(
  cod_pb numeric(2) not null,
  nombre_pb varchar(30) not null,
  constraint pk_productos_basicos primary key(cod_pb)
);

create table se_basan_en(
  cod_pizza numeric(3,0) not null,
  cod_pb numeric(2) not null,
  constraint pk_se_basan_en primary key (cod_pizza, cod_pb),
  constraint fk_se_basan_en1 foreign key (cod_pizza) references pizzas (co
d_pizza)
on delete cascade on update cascade,
  constraint fk_se_basan_en2 foreign key (cod_pb) references
productos_basicos (cod_pb) on delete cascade on update cascade
);

create table productos(
  cod_pr numeric(2) not null,
  nombre_pr varchar(30) not null,
  constraint pk_productos primary key(cod_pr)
);

create table se_pueden_utilizar_en(
  cod_pizza numeric(3,0) not null,
  cod_pr numeric(2) not null,
```

```

constraint pk_se_pueden_utilizar_en primary key(cod_pizza, cod_pr),
constraint fk_se_pueden_utilizar_en1 foreign key (cod_pizza)
references pizzas(cod_pizza) on delete cascade on update cascade,
constraint fk_se_pueden_utilizar_en2 foreign key(cod_pr) references
productos(cod_pr) on delete cascade on update cascade
);

```

```

create table distribuidores(
cod_d numeric (2,0) not null,
nombre_d varchar(30) not null,
tlf numeric(9),
cpostal numeric(5,0),
constraint pk_distribuidores primary key(cod_d)
);

```

```

create table compran(
cod_pb numeric(2) not null,
cod_d numeric(2,0) not null,
constraint pk_compran primary key(cod_pb, cod_d),
constraint fk_compran1 foreign key(cod_pb) references
productos_basicos(cod_pb) on delete cascade
on update cascade,
constraint fk_compran2 foreign key(cod_d) references
distribuidores(cod_d) on delete cascade on update cascade
);

```

```

create table pizzeros(
cod_pz numeric(2) not null,
nombre_pz varchar(30) not null,
edad numeric(3),
provincia varchar(30),
constraint pk_pizzeros primary key(cod_pz)
);

```

```

create table tamaños(
cod_t numeric(3) not null,
descripcion varchar(255),
cod_pz numeric(2),
constraint pk_tamaños primary key(cod_t),
constraint fk_tamaños foreign key(cod_pz) references
pizzeros(cod_pz) on delete cascade on update cascade
);

```

```

create table se_ocupan(
cod_pz numeric(2) not null,
cod_t numeric(3) not null,
constraint pk_venden primary key(cod_pz, cod_t),
constraint fk_ocupan1 foreign key(cod_pz) references
pizzeros(cod_pz) on delete cascade

```

```

on update cascade,
constraint fk_ocupan2 foreign key(cod_t) references
tamaños(cod_t) on delete cascade on update cascade
);

```

```

create table venden(
cod_pizza numeric(2) not null,
cod_t numeric(3) not null,
constraint pk_venden primary key(cod_pizza, cod_t),
constraint fk_venden1 foreign key(cod_pizza) references
pizzas(cod_pizza) on delete cascade
on update cascade,
constraint fk_venden2 foreign key(cod_t) references
tamaños(cod_t) on delete cascade on update cascade
);

```

