

Projeto Interdisciplinar – Banco de Dados  
ETEC de Guarulhos  
1º M-TEC - Desenvolvimento de Sistemas

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Grupo C – BD Interdisciplinar

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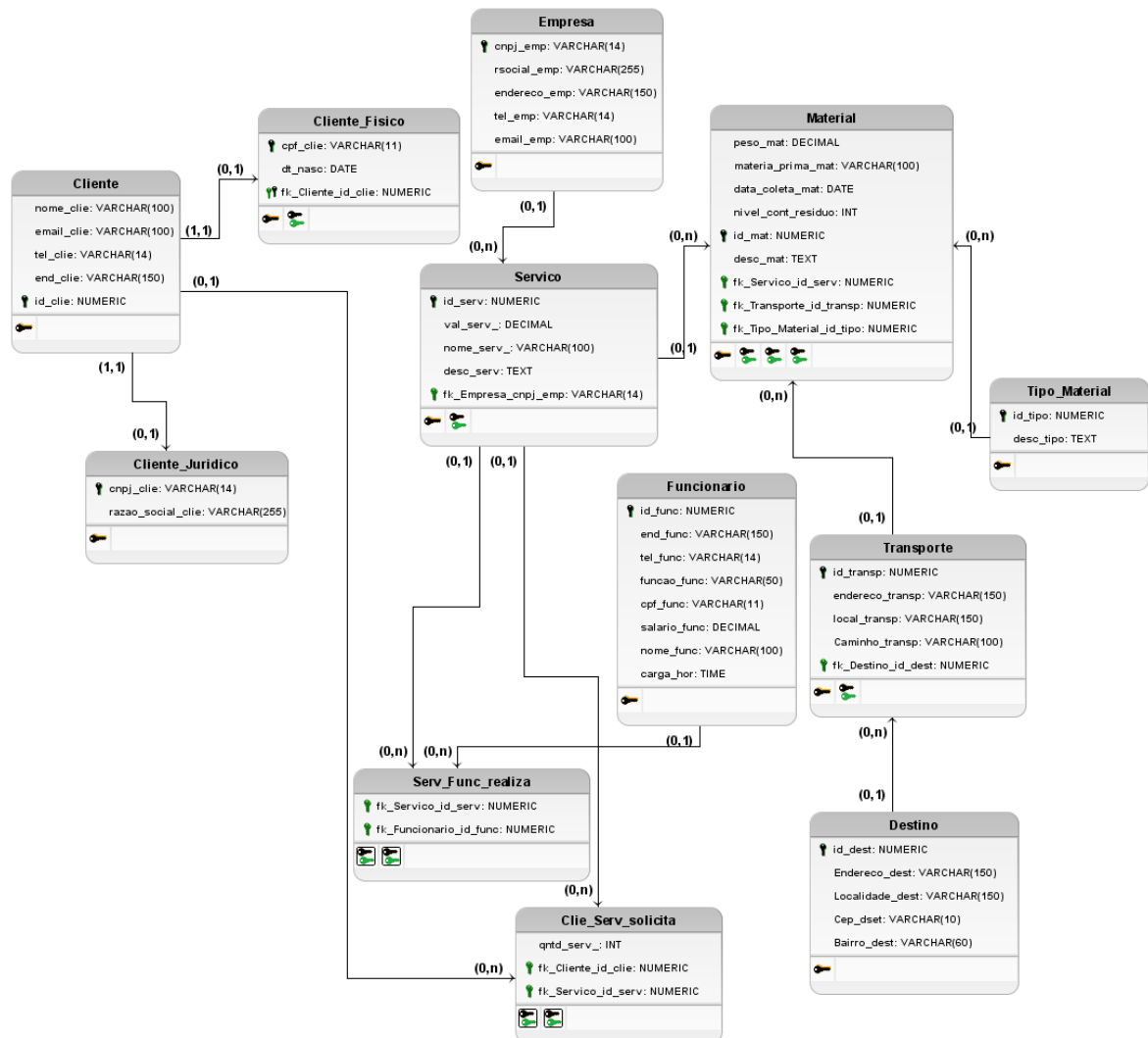
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## MLR – Modelo Lógico Relacional



**cliente**

|               |   |    |    |
|---------------|---|----|----|
| id_clie       | N | 5  | PK |
| nome_clie     | A | 30 | NN |
| email_clie    | A | 40 |    |
| tel_clie      | C | 14 |    |
| endereco_clie | A | 30 |    |

**cliente\_juridico**

|              |   |    |    |
|--------------|---|----|----|
| cnpj_clie    | C | 14 | PK |
| rsocial_clie | A | 50 |    |

**cliente\_fisico**

|          |   |    |    |
|----------|---|----|----|
| cpf_clie | C | 11 | PK |
| id_clie  |   |    | FK |

**empresa**

|              |   |    |    |
|--------------|---|----|----|
| cnpj_emp     | C | 14 | PK |
| rsocial_emp  | A | 50 | NN |
| email_emp    | A | 40 |    |
| tel_emp      | C | 14 |    |
| endereco_emp | A | 30 |    |

**serviço**

|           |   |      |    |
|-----------|---|------|----|
| id_serv   | N | 5    | PK |
| cnpj_emp  |   |      | FK |
| nome_serv | A | 20   | NN |
| val_serv  | N | 12,2 |    |
| desc_serv | A |      |    |

**solicita\_clie\_serv**

|            |   |   |    |
|------------|---|---|----|
| id_clie    |   |   | FK |
| id_serv    |   |   | FK |
| quantidade | N | 8 | NN |

**funcionario**

|            |   |    |    |
|------------|---|----|----|
| id_func    | N | 5  | PK |
| nome_func  | A | 30 | NN |
| cpf_func   | C | 11 | NN |
| email_func | A | 30 |    |

MF – Modelo Físico – Dados

|               |   |      |  |
|---------------|---|------|--|
| tel_func      | C | 14   |  |
| endereco_func | A | 30   |  |
| salario_func  | N | 10,2 |  |
| funcao_func   | A | 20   |  |
| carga_hor     | A | 15   |  |

**realiza\_serv\_func**

|         |  |  |    |
|---------|--|--|----|
| id_serv |  |  | FK |
| id_func |  |  | FK |

**destino**

|                 |   |    |    |
|-----------------|---|----|----|
| id_dest         | N | 5  | PK |
| endereco_dest   | A | 30 |    |
| cep_dest        | C | 8  | NN |
| localidade_dest | A | 30 |    |
| bairro_dest     | A | 20 |    |

**transporte**

|                 |   |    |    |
|-----------------|---|----|----|
| id_transp       | N | 5  | PK |
| id_dest         |   |    | FK |
| endereco_transp | A | 30 |    |
| local_transp    | A | 30 |    |
| caminho_transp  | A | 50 |    |

**tipo\_material**

|           |   |   |    |
|-----------|---|---|----|
| id_tipo   | N | 5 | PK |
| desc_tipo | A |   |    |

**material**

|               |   |     |    |
|---------------|---|-----|----|
| id_mat        | N | 5   | PK |
| id_serv       |   |     | FK |
| id_transp     |   |     | FK |
| id_tipo       |   |     | FK |
| peso_mat      | N | 5,2 |    |
| materia_prima | A | 25  |    |
| data_coleta   | D |     |    |
| desc_mat      | A |     |    |

```
create table cliente ( id_clie numeric(5)
                        constraint clie_id_pk primary key,
                        nome_clie varchar(30)
                        constraint clie_nome_nn not null,
                        email_clie varchar(40),
                        tel_clie char(14),
                        endereco_clie varchar(30)
                        );
```

```
create table cliente_juridico ( cnpj_clie char(14)
                             constraint clientejuridico_cnpj_pk primary key,
                             rsocial_clie varchar(50)
                             );
```

```
create table cliente_fisico ( cpf_clie char(11)
                             constraint clientefisico_cpf_pk primary key,
                             id_clie
                             clientefisico_id_fk references cliente
                             );
```

```
create table empresa ( cnpj_emp char(14)
                        constraint emp_cnpj_pk primary key,
                        rsocial_emp varchar(50)
                        constraint emp_rsocial_nn not null,
                        email_emp varchar(40),
                        tel_emp char(14),
                        endereco_emp varchar(30)
                        );
```

```
create table servico ( id_serv numeric(5)
                    constraint serv_id_pk primary key,
                    cnpj_emp
                    constraint serv_cnpj_fk references empresa,
                    nome_serv varchar(20)
                    constraint serv_nome_nn not null,
                    val_serv numeric(12,2),
                    desc_serv text
                );
```

[illegible]

);

```
create table funcionario ( id_func numeric(5)
                        constraint func_id_pk primary key,
                        nome_func varchar(30)
                        constraint func_nome_nn not null,
                        cpf_func char(11)
                        constraint func_cpf_nn not null,
                        email_func varchar(30),
                        tel_func char(14),
                        endereco_func varchar(30),
                        salario_func numeric(10,2),
                        funcao_func varchar(20),
                        carga_hor varchar(15)
                        );
```

```
create table realiza_serv_func ( id_serv
                        constraint real_idserv_fk references servico,
                        id_func
                        constraint real_idfunc_fk references funcionario
                        );
```

```
create table destino ( id_dest numeric(5)
                        constraint dest_id_pk primary key,
                        endereco_dest varchar(30),
                        cep_dest char(8)
                        constraint dest_cep_nn not null,
                        localidade_dest varchar(30),
                        bairro_dest varchar(20)
                        );
```

```
create table transporte ( id_transp numeric(5)
                        constraint transp_id_pk primary key,
                        id_dest
                        constraint transp_iddest_fk references destino,
                        endereco_transp varchar(30),
                        local_transp varchar(30),
                        caminho_transp varchar(50)
                        );
```

```
create table tipo_material ( id_tipo numeric(5)
                        constraint tipo_id_pk primary key,
                        desc_tipo text
                        );
```

```
create table material ( id_mat numeric(5)
                        constraint mat_id_pk primary key,
                        id_serv
                        constraint mat_idserv_fk references servico,
                        id_transp
                        constraint mat_idtransp_fk references transporte,
                        id_tipo
                        constraint mat_idtipo_fk references tipo_material,
                        peso_mat numeric(5,2),
                        materia_prima varchar(25),
                        data_coleta date,
                        desc_mat text
                        );
```

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## MF – Modelo Físico – Query SQL

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```
select * from cliente;  
select * from cliente_juridico;  
select * from cliente_fisico;  
select * from empresa;  
select * from servico;  
select * from solicita_clie_serv;  
select * from funcionario;  
select * from realiza_serv_func;  
select * from destino;  
select * from transporte;  
select * from tipo_material;  
select * from material;
```

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