|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| LIBRO | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idMaterial | CHAR(4) | FK | No | No | Si | PK, CASCADA | No |
| Isbn | CHAR(13) | U | No | No | Si | No | No |
| edicion | VARCHAR(20) | No | No | No | Si | No | No |
| tema | VARCHAR(20) | No | No | No | Si | No | No |
| adquisicion | CHAR(4) | U | No | No | Si | No | No |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| TESIS | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idMaterial | CHAR(4) | FK | No | No | Si | PK, CASCADA | No |
| idTesis | CHAR(4) | U | No | No | Si | No | No |
| carrera | VARCHAR(30) | No | No | No | Si | No | No |
| añoPublicacion | DATE | No | No | No | Si | No | No |
| idDir | CHAR(4) | FK | No | No | No | FK,  EN NULO | No |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| MATERIAL | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idMaterial | CHAR(4) | PK | No | No | Si | No | No |
| ubicacion | CHAR(18) | No | No | No | Si | No | No |
| clasificacion | CHAR(18) | No | No | No | Si | No | No |
| titulo | VARCHAR(30) | No | No | No | Si | No | No |
| tipoMaterial | CHAR(5) | No | LIBRO, TESIS | No | Si | CK | No |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| AUTORMAT | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idAutor | CHAR(4) | FK | No | No | Si | PK,  CASCADA | No |
| idMaterial | CHAR(4) | FK | No | No | Si | No |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| AUTOR | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idAutor | CHAR(4) | PK | No | No | Si | No | No |
| nacionalidad | VARCHAR(20) | No | No | No | Si | No | No |
| nombreAutor | VARCHAR(20) | No | No | No | Si | No | No |
| apPatAutor | VARCHAR(20) | No | No | No | Si | No | No |
| apMatAutor | VARCHAR(20) | No | No | No | No | No | No |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EJEMPLAR | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idMaterial | CHAR(4) | FK | No | No | Si | PK,  CASCADA | No |
| idEjem | CHAR(4) | D | No | No | Si | No |
| status | CHAR(13) | No | DISPONIBLE, PRESTAMO, NO SALE, MANTENIMIENTO | No | Si | CK | No |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| DIRECTOR | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idDir | CHAR(4) | PK | No | No | Si | No | No |
| gradoEst | VARCHAR(30) | No | No | No | Si | No | No |
| nombreDir | VARCHAR(20) | No | No | No | Si | No | No |
| apPatDir | VARCHAR(20) | No | No | No | Si | No | No |
| apMatDir | VARCHAR(20) | No | No | No | No | No | No |

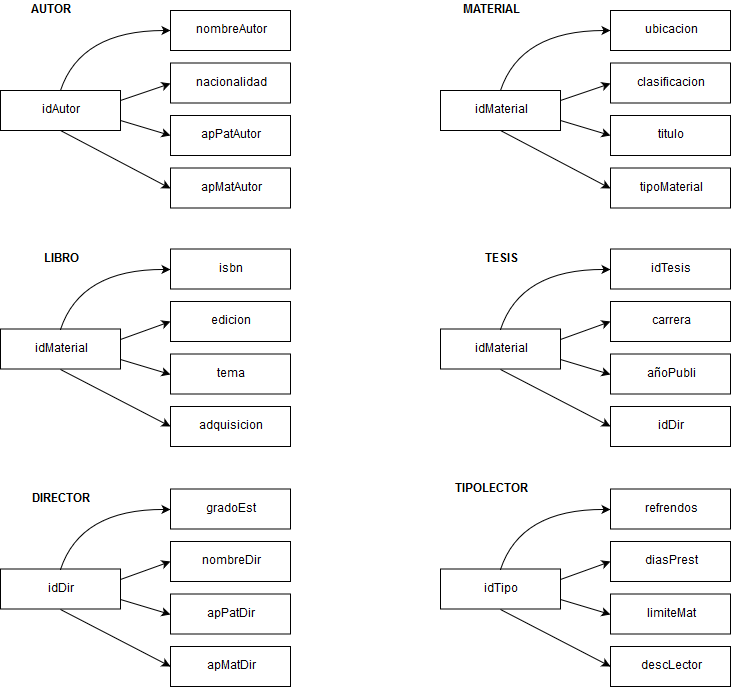
|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PRESTAMO | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idPrestamo | CHAR(4) | PK | No | No | Si | No | No |
| fechaDevl | DATE | No | No | No | Si | No | No |
| fechaPres | DATE | No | No | SYSDATE | Si | No | No |
| idMaterial | CHAR(4) | FK | No | No | Si | FK,  CASCADE | No |
| idLector | CHAR(4) | FK | No | No | Si | No |
| idEjem | CHAR(4) | FK | No | No | Si | No |
| fechaVen | DATE | No | No | No | Si | No | Si |
| numRese | NUMBER(1) | No | No | 0 | Si | No | No |

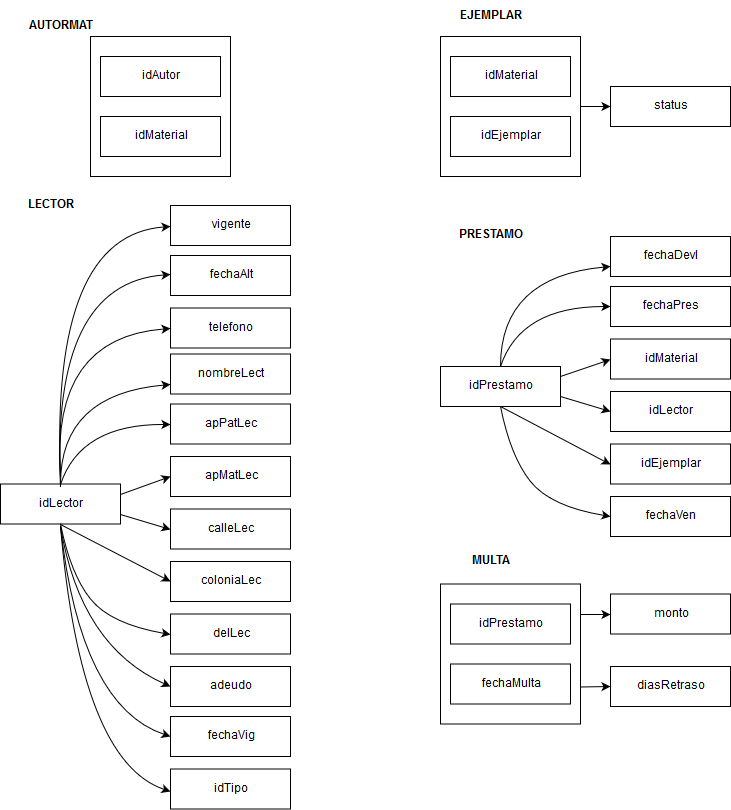
|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| MULTA | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idPrestamo | CHAR(4) | FK | No | No | Si | PK,  CASCADE | No |
| fechaMulta | DATE | PK | No | SYSDATE | Si | No |
| monto | NUMBER(6) | No | No | No | Si | No | Si |
| diasRetraso | NUMBER(3) | No | No | No | Si | No | Si |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| LECTOR | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idLector | CHAR(4) | PK | No | No | Si | No | No |
| vigente | CHAR(1) | No | Y, N | No | Si | CK | No |
| fechaAlt | DATE | No | No | SYSDATE | Si | No | No |
| telefono | CHAR(10) | No | No | No | Si | No | No |
| nombreLect | VARCHAR(20) | No | No | No | Si | No | No |
| apPatLect | VARCHAR(20) | No | No | No | Si | No | No |
| apMatLect | VARCHAR(20) | No | No | No | No | No | No |
| calleLec | VARCHAR(30) | No | No | No | Si | No | No |
| coloniaLec | VARCHAR(50) | No | No | No | Si | No | No |
| delLec | VARCHAR(20) | No | No | No | Si | No | No |
| adeudo | NUMBER(5) | No | No | 0 | Si | No | Si |
| fechaVig | DATE | No | No | SYSDATE+365 | Si | No | No |
| idTipo | CHAR(4) | FK | No | No | Si | CASCADE | No |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| TIPOLECTOR | | | | | | | |
| Nombre Atributo | **Tipo de Dato** | **Llave** | **Restricciones de dominio** | **Omisión** | **Obligatorio** | **Integridad** | **Derivado** |
| idTipo | CHAR(4) | PK | No | No | Si | No | No |
| referendos | NUMBER(1) | No | No | No | Si | No | No |
| diasPrest | NUMBER(1) | No | No | No | Si | No | No |
| limiteMat | NUMBER(1) | No | No | No | Si | No | No |
| descLector | VARCHAR(12) | No | No | No | Si | No | No |

**Normalización**

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