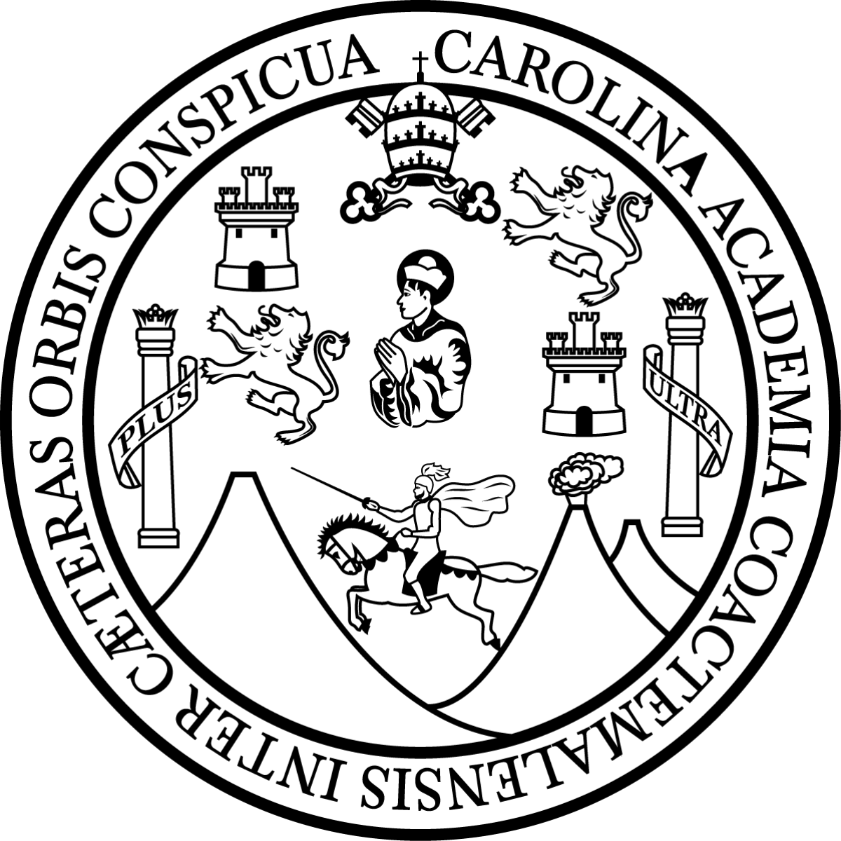


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| DOCUMENTACION  ‘NORMALIZACION’ |
|  |
| 25 abril  RAYMUNDO ALEXANDER IXVALAN PACHECO  Carne: 201503746 |



# NORMALIZACION

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PRIMERA FORMA NORMAL (1FN) Convirtiendo a datos atomicos los nombres del cliente, empleados y actores.   |  |  |  | | --- | --- | --- | | *nombre\_cliente* | *nombre* | *apellido* | | Austin Cintron | Austin | Austin | | Hugh Waldrop | Hugh | Hugh | | Steven Curley | Steven | Steven | | Derek Blakely | Derek | Derek | | Michele Grant | Michele | Michele | | Lee Hawks | Lee | Lee | | Dwight Lombardi | Dwight | Dwight | | Leo Ebert | Leo | Leo | | Carmen Owens | Carmen | Carmen | | Pedro Chestnut | Pedro | Pedro | | Pauline Henry | Pauline | Pauline | | Edgar Rhoads | Edgar | Edgar | |  |  |  | | *nombre\_empleado* | *nombre* | *apellido* | | Mike Hillyer | Mike | Mike | | Jon Stephens | Jon | Jon | |  |  |  | | *actor\_pelicula* | *nombre* | *apellido* | | Jayne Neeson | Jayne | Jayne | | Lucille Dee | Lucille | Lucille | | Kenneth Hoffman | Kenneth | Kenneth | | Renee Ball | Renee | Renee | | Adam Hopper | Adam | Adam | | Johnny Lollobrigida | Johnny | Johnny | | Mary Keitel | Mary | Mary | | Gregory Gooding | Gregory | Gregory | | Sandra Peck | Sandra | Sandra | | Penelope Cronyn | Penelope | Penelope | | Fay Wood | Fay | Fay | |

## SEGUNDA FORMA NORMAL (2FN)

Muchos paises tienen muchas ciudades, por lo tanto crearemos dependencias de estos atributos, para efectos de la normalizacion se crearan ids para que las tablas tengan mas sentido.

|  |  |
| --- | --- |
| *id\_pais* | *pais* |
| 1 | Afghanistan |
| 2 | Algeria |
| 3 | American Samoa |
| 4 | Angola |
| 5 | Anguilla |
| 6 | Argentina |
| 7 | Armenia |
| 8 | Australia |
| 9 | Austria |
| 10 | Azerbaijan |

Muchas ciudades tienen muchas direcciones, por lo tanto crearemos dependencias de estos atributos, para efectos de la normalizacion se crearan ids para que las tablas tengan mas sentido.

|  |  |  |
| --- | --- | --- |
| *id\_ciudad* | *nombre* | *id\_pais* |
| 1 | A Corua (La Corua) | 87 |
| 2 | Abha | 82 |
| 3 | Abu Dhabi | 101 |
| 4 | Acua | 60 |
| 5 | Adana | 97 |
| 6 | Addis Abeba | 31 |
| 7 | Aden | 107 |
| 8 | Adoni | 44 |
| 9 | Ahmadnagar | 44 |
| 10 | Akishima | 50 |

De la misma forma pueden estar las ciudades con respecto a los clientes, empleados y tiendas, por lo tanto crearemos dependencias de estos atributos, para efectos de la normalizacion se crearan ids para que las tablas tengan mas sentido.

|  |  |  |
| --- | --- | --- |
| *id\_distrito* | *direccion* | *id\_ciudad* |
| 1 | 1 Valle de Santiago Avenue | 93 |
| 2 | 1001 Miyakonojo Lane | 518 |
| 3 | 1002 Ahmadnagar Manor | 213 |
| 4 | 1003 Qinhuangdao Street | 419 |
| 5 | 1006 Santa Brbara dOeste Manor | 389 |
| 6 | 1009 Zanzibar Lane | 32 |
| 7 | 1010 Klerksdorp Way | 186 |
| 8 | 1013 Tabuk Boulevard | 261 |
| 9 | 1014 Loja Manor | 22 |

## TERCERA FORMA NORMAL (3FN)

Para las fechas que dependen meramente de una renta de un cliente entonces se agregan las fechas como atributos de el id\_renta, como son fecha\_renta, fecha\_devolucion y fecha\_pago.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *id\_renta* | *fecha\_renta* | *fecha\_devuelta* | *fecha\_pago* | *id\_tienda* | *id\_cliente* |
| 1 | 19/08/2005 22:06 | 29/08/2005 01:11 | 19/08/2005 22:06 | 2 | 70 |
| 2 | 08/07/2005 07:28 | 14/07/2005 02:10 | 08/07/2005 07:28 | 1 | 219 |
| 3 | 30/07/2005 07:05 | 07/08/2005 09:12 | 30/07/2005 07:05 | 2 | 490 |
| 4 | 22/08/2005 00:49 | 22/08/2005 23:44 | 22/08/2005 00:49 | 2 | 165 |
| 5 | 18/08/2005 21:59 | 24/08/2005 02:25 | 18/08/2005 21:59 | 2 | 167 |
| 6 | 31/07/2005 03:58 | 04/08/2005 07:34 | 31/07/2005 03:58 | 1 | 343 |
| 7 | 22/08/2005 18:53 | 30/08/2005 18:58 | 22/08/2005 18:53 | 1 | 318 |
| 8 | 08/07/2005 20:31 | 15/07/2005 15:58 | 08/07/2005 20:31 | 1 | 101 |
| 9 | 29/07/2005 20:14 | 04/08/2005 00:50 | 29/07/2005 20:14 | 1 | 63 |
| 10 | 27/07/2005 06:33 | 28/07/2005 06:15 | 27/07/2005 06:33 | 1 | 1 |

## FORMA NORMAL BOYCE-CODD (FNBC)

Muchas peliculas dependen de sus actores, clasificacion,categorias y lenguaje por lo tanto se hace una dependencia entre estos atributos con sus respectivas peliculas.

|  |  |
| --- | --- |
| *id\_categoria* | *descripcion* |
| 1 | Family |
| 2 | Games |
| 3 | Animation |
| 4 | Classics |
| 5 | Documentary |
| 6 | New |
| 7 | Sports |
| 8 | Children |
| 9 | Music |
| 10 | Travel |

|  |  |  |
| --- | --- | --- |
| *id\_actor* | *nombre* | *apellido* |
| 1 | Jayne | Neeson |
| 2 | Lucille | Dee |
| 3 | Kenneth | Hoffman |
| 4 | Renee | Ball |
| 5 | Adam | Hopper |
| 6 | Johnny | Lollobrigida |
| 7 | Mary | Keitel |
| 8 | Gregory | Gooding |
| 9 | Sandra | Peck |
| 10 | Penelope | Cronyn |
| 11 | Fay | Wood |

|  |  |
| --- | --- |
| *id\_lenguaje* | *descripcion* |
| 1 | German |
| 2 | English |
| 3 | Italian |
| 4 | French |
| 5 | Japanese |
| 6 | Mandarin |

|  |  |
| --- | --- |
| *id\_clasificacion* | *descripcion* |
| 1 | A |
| 2 | B |
| 3 | C |
| 4 | B+15 |
| 5 | A+ |

Tabla por motivos de espacio solo se pone sus columnas.

|  |
| --- |
| *id\_pelicula* |
| *titulo* |
| *descripcion* |
| *anio\_lanzamiento* |
| *duracion* |
| *cantidad\_dias\_renta* |
| *precio\_renta* |
| *costo\_por\_anio* |
| *id\_clasificacion* |

## CUARTA FORMA NORMAL (4FN)

Muchas peliculas tienen dependencia de los detalles de renta hechas, por tanto el se crea una nueva entidad que elimina esa dependencia y relaciona las rentas con sus detalles, que contiene sus peliculas.

|  |  |  |  |
| --- | --- | --- | --- |
| *id\_detalle\_renta* | *precio* | *id\_renta* | *id\_pelicula* |
| 1 | 2.99 | 9899 | 554 |
| 2 | 0.99 | 11935 | 925 |
| 3 | 0.99 | 11339 | 875 |
| 4 | 4.99 | 4606 | 403 |
| 5 | 0.99 | 7667 | 367 |
| 6 | 0.99 | 6668 | 109 |
| 7 | 0.99 | 9585 | 625 |
| 8 | 4.99 | 6270 | 271 |
| 9 | 0.99 | 15249 | 924 |
| 10 | 4.99 | 1904 | 666 |

## QUINTA FORMA NORMAL (5FN)

Se realiza una consulta haciendo un join entre todas las entidades, y detectar el numero para posible tuplas espurias y modificar las entidades sea el caso.