1. CREATE VIEW EmployeeInfo AS SELECT firstname, lastname, salary FROM employee;

# Database organisation

## Structure for view employeeinfo

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| firstname | varchar(20) | Yes | NULL |
| lastname | varchar(20) | Yes | NULL |
| salary | int | Yes | NULL |

## Dumping data for table employeeinfo

|  |  |  |
| --- | --- | --- |
| Sam | Newton | 50000 |
| Elvin | Gomes | 60000 |
| Jack | Sparrow | 75000 |

SELECT TABLE\_NAME, IS\_UPDATABLE

FROM INFORMATION\_SCHEMA.VIEWS

WHERE TABLE\_SCHEMA = 'organisation';

# Database INFORMATION\_SCHEMA

## Table structure for table VIEWS

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| TABLE\_CATALOG | varchar(64) | Yes | NULL |
| TABLE\_SCHEMA | varchar(64) | Yes | NULL |
| TABLE\_NAME | varchar(64) | Yes | NULL |
| VIEW\_DEFINITION | longtext | Yes | NULL |
| CHECK\_OPTION | enum('NONE', 'LOCAL', 'CASCADED') | Yes | NULL |
| IS\_UPDATABLE | enum('NO', 'YES') | Yes | NULL |
| DEFINER | varchar(288) | Yes | NULL |
| SECURITY\_TYPE | varchar(7) | Yes | NULL |
| CHARACTER\_SET\_CLIENT | varchar(64) | No |  |
| COLLATION\_CONNECTION | varchar(64) | No |  |

## Dumping data for table VIEWS

|  |  |
| --- | --- |
| employeeinfo | YES |

1. create view clientinfo as select client\_id, clientName from client;

# Database organisation

## Structure for view clientinfo

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| client\_id | varchar(20) | Yes | NULL |
| clientName | varchar(20) | Yes | NULL |

## Dumping data for table clientinfo

|  |  |
| --- | --- |
| C1 | Microsoft |
| C2 | Google |

SELECT TABLE\_NAME, IS\_UPDATABLE

FROM INFORMATION\_SCHEMA.VIEWS

WHERE TABLE\_SCHEMA = 'organisation' AND TABLE\_NAME='clientinfo';

# Database INFORMATION\_SCHEMA

## Table structure for table VIEWS

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| TABLE\_CATALOG | varchar(64) | Yes | NULL |
| TABLE\_SCHEMA | varchar(64) | Yes | NULL |
| TABLE\_NAME | varchar(64) | Yes | NULL |
| VIEW\_DEFINITION | longtext | Yes | NULL |
| CHECK\_OPTION | enum('NONE', 'LOCAL', 'CASCADED') | Yes | NULL |
| IS\_UPDATABLE | enum('NO', 'YES') | Yes | NULL |
| DEFINER | varchar(288) | Yes | NULL |
| SECURITY\_TYPE | varchar(7) | Yes | NULL |
| CHARACTER\_SET\_CLIENT | varchar(64) | No |  |
| COLLATION\_CONNECTION | varchar(64) | No |  |

## Dumping data for table VIEWS

|  |  |
| --- | --- |
| clientinfo | YES |

1. CREATE VIEW employeetotalsales AS SELECT e.emp\_id, e.firstname,e.lastname,w.totalSales

FROM employee e JOIN workswith w ON e.emp\_id = w.emp\_id;

# Database organisation

## Structure for view employeetotalsales

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| emp\_id | int | Yes | NULL |
| firstname | varchar(20) | Yes | NULL |
| lastname | varchar(20) | Yes | NULL |
| totalSales | varchar(20) | Yes | NULL |

## Dumping data for table employeetotalsales

|  |  |  |  |
| --- | --- | --- | --- |
| 101 | Sam | Newton | 1 Million |
| 102 | Elvin | Gomes | 10 Million |
| 103 | Jack | Sparrow | 5 Lakh |

SELECT TABLE\_NAME, IS\_UPDATABLE

FROM INFORMATION\_SCHEMA.VIEWS

WHERE TABLE\_SCHEMA = 'organisation' AND TABLE\_NAME=' employeetotalsales ';

# Database INFORMATION\_SCHEMA

## Table structure for table VIEWS

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| TABLE\_CATALOG | varchar(64) | Yes | NULL |
| TABLE\_SCHEMA | varchar(64) | Yes | NULL |
| TABLE\_NAME | varchar(64) | Yes | NULL |
| VIEW\_DEFINITION | longtext | Yes | NULL |
| CHECK\_OPTION | enum('NONE', 'LOCAL', 'CASCADED') | Yes | NULL |
| IS\_UPDATABLE | enum('NO', 'YES') | Yes | NULL |
| DEFINER | varchar(288) | Yes | NULL |
| SECURITY\_TYPE | varchar(7) | Yes | NULL |
| CHARACTER\_SET\_CLIENT | varchar(64) | No |  |
| COLLATION\_CONNECTION | varchar(64) | No |  |

## Dumping data for table VIEWS

|  |  |
| --- | --- |
| employeetotalsales | YES |

4. CREATE VIEW ManagerClients AS SELECT b.mgr\_id, e.firstname AS manager\_firstname,

e.lastname AS manager\_lastname,c.client\_id,c.clientName

FROM branch b

JOIN employee e ON b.mgr\_id = e.emp\_id

JOIN client c ON b.branch\_id = c.branchid;

# Database organisation

## Structure for view managerclients

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| mgr\_id | int | Yes | NULL |
| manager\_firstname | varchar(20) | Yes | NULL |
| manager\_lastname | varchar(20) | Yes | NULL |
| client\_id | varchar(20) | Yes | NULL |
| clientName | varchar(20) | Yes | NULL |

## Dumping data for table managerclients

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 101 | Sam | Newton | C2 | Google |
| 103 | Jack | Sparrow | C1 | Microsoft |

1. CREATE VIEW EmployeeClients AS SELECT e.emp\_id, e.firstname AS employee\_firstname,e.lastname AS employee\_lastname, c.client\_id, c.clientName FROM employee e

JOIN workswith w ON e.emp\_id = w.emp\_id

JOIN client c ON w.client\_id = c.client\_id;

# Database organisation

## Structure for view employeeclients

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| emp\_id | int | Yes | NULL |
| employee\_firstname | varchar(20) | Yes | NULL |
| employee\_lastname | varchar(20) | Yes | NULL |
| client\_id | varchar(20) | Yes | NULL |
| clientName | varchar(20) | Yes | NULL |

## Dumping data for table employeeclients

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 101 | Sam | Newton | C1 | Microsoft |
| 102 | Elvin | Gomes | C2 | Google |
| 103 | Jack | Sparrow | C1 | Microsoft |

1. CREATE VIEW EmployeeBranchClient AS

SELECT e.firstname AS employee\_firstname, e.lastname AS employee\_lastname,b.branchName,c.clientName

FROM employee e

JOIN branch b ON e.branchid = b.branch\_id

JOIN workswith w ON e.emp\_id = w.emp\_id

JOIN client c ON w.client\_id = c.client\_id;

# Database organisation

## Structure for view employeebranchclient

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| employee\_firstname | varchar(20) | Yes | NULL |
| employee\_lastname | varchar(20) | Yes | NULL |
| branchName | varchar(20) | Yes | NULL |
| clientName | varchar(20) | Yes | NULL |

## Dumping data for table employeebranchclient

|  |  |  |  |
| --- | --- | --- | --- |
| Jack | Sparrow | Admin | Microsoft |
| Sam | Newton | Finance | Microsoft |
| Elvin | Gomes | Admin | Google |

1. CREATE VIEW EmployeesPerBranch AS

SELECT b.branch\_id, b.branchName,COUNT(e.emp\_id) AS numEmployees

FROM branch b

JOIN employee e ON b.branch\_id = e.branchid

GROUP BY b.branch\_id, b.branchName;

# Database organisation

## Structure for view employeesperbranch

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| branch\_id | varchar(20) | Yes | NULL |
| branchName | varchar(20) | Yes | NULL |
| numEmployees | bigint | No | 0 |

## Dumping data for table employeesperbranch

|  |  |  |
| --- | --- | --- |
| B1 | Finance | 1 |
| B2 | Admin | 2 |

8. SELECT \* FROM EmployeeClients WHERE clientName = 'Google';

# Database organisation

## Structure for view EmployeeClients

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| emp\_id | int | Yes | NULL |
| employee\_firstname | varchar(20) | Yes | NULL |
| employee\_lastname | varchar(20) | Yes | NULL |
| client\_id | varchar(20) | Yes | NULL |
| clientName | varchar(20) | Yes | NULL |

## Dumping data for table EmployeeClients

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 102 | Elvin | Gomes | C2 | Google |

9. SELECT numEmployees from employeesperbranch WHERE branchName = "Finance";

# Database organisation

## Structure for view employeesperbranch

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| branch\_id | varchar(20) | Yes | NULL |
| branchName | varchar(20) | Yes | NULL |
| numEmployees | bigint | No | 0 |

## Dumping data for table employeesperbranch

|  |
| --- |
| 1 |

10. SELECT branch\_id,branchName, MAX(numEmployees) AS maxNumEmployees FROM EmployeesPerBranch;

# Database organisation

## Structure for view EmployeesPerBranch

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Type** | **Null** | **Default** |
| branch\_id | varchar(20) | Yes | NULL |
| branchName | varchar(20) | Yes | NULL |
| numEmployees | bigint | No | 0 |

## Dumping data for table EmployeesPerBranch

|  |  |  |
| --- | --- | --- |
| B1 | Finance | 2 |