**BSCLMR141920**

**Airport Database**

The database is used to store data for the staffs identification number, staff department and also keeps data for the salary each staff is paid according to their department.

Customers Data is also stored by the database some of the data are national identification card or the passport number and also keeps the phone number of the customer for consultation, amount paid by the customer and the destination of the journey for the customer .

Supervisor table is used to store data for the supervisor id and department he/she is supervising.

Finance is use to collect information about the mode of payment and also the amount paid by the customer.

**1ST NORMALIZATION**

This process is also known as flattening of the table.

To remove duplicate in the data.

Supervisor id and staff. The supervisor id is repeated

|  |  |  |
| --- | --- | --- |
| Sup  Id | Sup  Name | Manager id |
| 12 | Gatonye | 1 |
| 13 | Munene | 1 |
| 14 | Julius | 1 |
| 115 | Christopher | 1 |

|  |  |
| --- | --- |
| **Manager id** | **Manager Name** |
| 1 | James Maina |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sup  id | Dept  id | Dept  name | Staff  id | Staff  name | Staff  Salary |
| 12 | Cl4 | Cleaners | 1401 | John | 10,000 |
| 12 | Cl4 | Cleaners | 1402 | Paul | 10,000 |
| 13 | Sec5 | Security | 1405 | Njeri | 15,000 |
| 13 | Sec5 | Security | 1407 | Kariuki | 15,000 |
| 14 | Eng6 | Engineer | 1411 | Muchiri | 30,000 |
| 14 | Eng6 | Engineer | 1412 | Charity | 30,000 |
| 15 | P7 | pilot | 1418 | Bidan | 40,000 |
| 15 | P7 | pilot | 1419 | Zakayo | 40,000 |

**2nd normalization**

This applies to composite primary keys.

|  |  |
| --- | --- |
| Sup  id | Staff  Id |
| 12 | 1401 |
| 12 | 1402 |
| 13 | 1405 |
| 13 | 1407 |
| 14 | 1411 |
| 14 | 1412 |
| 15 | 1418 |
| 15 | 1419 |

|  |  |  |
| --- | --- | --- |
| Staff  id | Staff  Name | Staff  salary |
| 1401 | John | 10,000 |
| 1402 | Paul | 10,000 |
| 1405 | Njeri | 15,000 |
| 1407 | Kariuki | 15,000 |
| 1411 | Muchiri | 30,000 |
| 1412 | Charity | 30,000 |
| 1418 | Bidan | 40,000 |
| 1419 | Zakayo | 40,000 |

|  |  |  |  |
| --- | --- | --- | --- |
| Sup  id | Sup  Name | Dept  id | Dept  name |
| 12 | Gatonye | Cl4 | Cleaners |
| 12 | Gatonye | Cl4 | cleaners |
| 13 | Munene | Sec5 | Security |
| 13 | Munene | Sec5 | Security |
| 14 | Julius | Eng6 | Engineer |
| 14 | Julius | Eng6 | Engineer |
| 15 | Christopher | P7 | pilot |
| 15 | Christopher | P7 | Pilot |

|  |  |  |  |
| --- | --- | --- | --- |
| Sup  id | Staff  Id | Dept  id | Dept  name |
| 12 | 1401 | Cl4 | Cleaners |
| 12 | 1402 | Cl4 | cleaners |
| 13 | 1405 | Sec5 | Security |
| 13 | 1407 | Sec5 | Security |
| 14 | 1411 | Eng6 | Engineer |
| 14 | 1412 | Eng6 | Engineer |
| 15 | 1418 | P7 | pilot |
| 15 | 1419 | P7 | Pilot |

|  |  |
| --- | --- |
| Nat  id | Phone  NO. |
| 1316 | 0101 |
| 1317 | 0102 |
| 1320 | 0105 |
| 1322 | 0107 |
| 1326 | 0111 |
| 1327 | 0112 |
| 1333 | 0118 |
| 1334 | 0119 |

|  |  |
| --- | --- |
| Nat  id | Cust.  Name |
| 1316 | Felix |
| 1317 | Derick |
| 1320 | Abdi |
| 1322 | Teddy |
| 1326 | Sam |
| 1327 | Samson |
| 1333 | Abira |
| 1334 | George |

|  |  |
| --- | --- |
| code | Cust  Id |
| ABC | 1316 |
| BCD | 1317 |
| EFG | 1320 |
| ACD | 1322 |
| DFE | 1326 |
| FED | 1327 |
| AZB | 1333 |
| AFB | 1334 |

|  |  |
| --- | --- |
| Cust  id | Amount |
| 1316 | 21,000 |
| 1317 | 5,000 |
| 1320 | 8,000 |
| 1322 | 10,000 |
| 1326 | 14,000 |
| 1327 | 15,000 |
| 1333 | 21,000 |
| 1334 | 22,000 |

**3rd Normalization**

This is the last normalization.

**Finance**

|  |  |  |  |
| --- | --- | --- | --- |
| code | Mode | Amount | Nat  id |
| ABC | Mpesa | 21,000 | 1316 |
| BCD | Mpesa | 5,000 | 1317 |
| EFG | Mpesa | 8,000 | 1320 |
| ACD | Bank | 10,000 | 1322 |
| DFE | Bank | 14,000 | 1326 |
| FED | Bank | 15,000 | 1327 |
| AZB | Bank | 21,000 | 1333 |
| AFB | Mpesa | 22,000 | 1334 |

**Customer**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Nat  id | Cust.  Name | Phone  NO. | Departure time | Arrival time | From | To |
| 1316 | Felix | 0101 | 0600hrs | 0700hrs | Nairobi | Muranga |
| 1317 | Derick | 0102 | 0900hrs | 0900hrs | Nairobi | Meru |
| 1320 | Abdi | 0105 | 0800hrs | 1000hrs | Nairobi | Kericho |
| 1322 | Teddy | 0107 | 0600hrs | 0600hrs | Nairobi | Kampala |
| 1326 | Sam | 0111 | 1600hrs | 1900hrs | Nairobi | Antananarivo |
| 1327 | Samson | 0112 | 1500hrs | 1900hrs | Nairobi | Johnesburg |
| 1333 | Abira | 0118 | 1800hrs | 2000hrs | Nairobi | Lagos |
| 1334 | George | 0119 | 1900hrs | 2100hrs | Nairobi | Accra |

**Staff**

|  |  |  |  |
| --- | --- | --- | --- |
| Staff  id | Staff  Name | Staff  salary | Sup  id |
| 1401 | John | 10,000 | 12 |
| 1402 | Paul | 10,000 | 12 |
| 1405 | Njeri | 15,000 | 13 |
| 1407 | Kariuki | 15,000 | 13 |
| 1411 | Muchiri | 30,000 | 14 |
| 1412 | Charity | 30,000 | 14 |
| 1418 | Bidan | 40,000 | 15 |
| 1419 | Zakayo | 40,000 | 15 |

**Supervisor**

|  |  |  |
| --- | --- | --- |
| Sup  Id | Sup  Name | Manager id |
| 12 | Gatonye | 1 |
| 13 | Munene | 1 |
| 14 | Julius | 1 |
| 115 | Christopher | 1 |

**Manager**

|  |  |
| --- | --- |
| **Manager id** | **Manager Name** |
| 1 | James Maina |