
## NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

# MILITARY DATABASE MANAGEMENT PROJECT

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## Problem Statement :-

In this project, we have designed a database management system to store information about the Indian Military. The database will contain important information about the Army and will be accessible to Army Officials and the Government.

This database will contain the personal details of the soldiers, posting of soldiers, information about the various battalions of the Army, inventory list and medical supplies of military bases, military vehicles, information about soldiers martyred during the war, awards and honors conferred upon the soldiers for their contributions on and off the battlefield, etc.

This database management system will help the Government and the Military Administration to access various types of information quickly and provide resources to the military on time. Assignment of troops to the warfront and formation of special task forces can be done quickly. They can keep track of the weapons and supplies during wartime and assess how many more weapons will be needed. They can efficiently find soldiers who are currently serving in a particular regiment and also the soldiers who have served in previous operations.

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- Tables
- ER Model Assumptions
- Functional Dependencies and Primary Keys
- Normalization
- ER Diagram
- Relational Schema with Normalized tables
- SQL Code

## Tables :-

### 1. SOLDIER

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| SoldierID | VARCHAR2(20) | Primary key |
| Sname | VARCHAR2(20) | Not null |
| DOB | DATE | Not null |
| DOJ | DATE | Not null |
| Height | INT | Not null |
| Weight | INT | Not null |
| Gender | CHAR | Not null |
| District | VARCHAR2(20) | Foreign key, Not null |
| RegimentCode | VARCHAR2(20) | Foreign key, Not null |
| OperationCode | VARCHAR2(20) | Foreign key, Not null |
| Srank | VARCHAR2(20) | Foreign key, Not null |

### 2. REGIMENT

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| RegimentCode | VARCHAR2(20) | Primary key |
| Rname | VARCHAR2(20) | Not null |
| HQCity | VARCHAR2(20) | Not null |
| CurrStrength | INT | Not null |

| | | |
|---|---|---|
| MaxStrength | INT | Not null |
| CommanderID | VARCHAR2(20) | Not null |

**3. LOCATION**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| District | VARCHAR2(20) | Primary key |
| State | VARCHAR2(20) | Not null |
| Country | VARCHAR2(20) | Not null |

**4. FAMILY**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| FatherName | VARCHAR2(20) | Primary key(1) |
| SoldierID | VARCHAR2(20) | Primary key(2), Foreign key |
| Children | INT | - |
| Marital Status | CHAR | Not null |

**5. POSTING**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| FromDate | DATE | Not null |
| TillDate | DATE | Not null |
| SoldierID | VARCHAR2(20) | Foreign key, not null |
| District | VARCHAR2(20) | Foreign key, not null |

**6. MEDALS**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| MedalID | VARCHAR2(20) | Primary key |
| MedalName | VARCHAR2(20) | Not null |
| Prize | INT | Not null |

**7. HONORS**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| MedalID | VARCHAR2(20) | Foreign key, Not null |
| SoldierID | VARCHAR2(20) | Foreign key, Not null |

**8. SALARY**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| sRank | VARCHAR2(20) | Primary key |
| Salary | INT | Not null |

**9. WEAPONS_INVENTORY**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| RegimentCode | VARCHAR2(20) | Primary key(1), Foreign key |
| WeaponID | VARCHAR2(20) | Primary key(2), Foreign key |
| Quantity | INT | Not null |

**10. VEHICLE_INVENTORY**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| RegimentCode | VARCHAR2(20) | Primary key(1), Foreign key |
| VehicleID | VARCHAR2(20) | Primary key(2), Foreign key |
| Quantity | INT | Not null |

**11. EQUIPMENTS_INVENTORY**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| RegimentCode | VARCHAR2(20) | Primary key(1), Foreign key |
| EquipmentID | VARCHAR2(20) | Primary key(2), Foreign key |
| Quantity | INT | Not null |

**12. WEAPON**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| WeaponID | VARCHAR2(20) | Primary key |
| Wname | VARCHAR2(20) | Not null |
| Wtype | VARCHAR2(20) | Not null |

**13. VEHICLE**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| VehicleID | VARCHAR2(20) | Primary key |
| Vname | VARCHAR2(20) | Not null |
| Vtype | VARCHAR2(20) | Not null |
| FuelType | VARCHAR2(20) | Not null |
| ManYear | INT | Not null |

**14. EQUIPMENT**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| EquipmentID | VARCHAR2(20) | Primary key |
| Ename | VARCHAR2(20) | Not null |
| Etype | VARCHAR2(20) | Not null |

**15. OPERATION**

| Attribute | Datatype | Constraints and Characteristics |
|---|---|---|
| OperationCode | VARCHAR2(20) | Primary key |
| Oname | VARCHAR2(20) | Not null |
| StartDate | DATE | Not null |
| EndDate | DATE | - |
| Outcome | VARCHAR2(20) | - |

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# ER Model Assumptions-

- A Soldier can participate in at most one operation while an operation can involve multiple numbers of soldiers. Each Operation must involve some soldier hence Total participation.
- A Soldier is given a salary on the basis of his Rank/Position in the Army.
- Multiple Soldiers are grouped to form a regiment. Each Soldier must be a part of one or the other regiment hence there is a total participation of Soldiers in this relationship.
- A Soldier can be honored by multiple medals and a particular medal can be awarded to multiple numbers of Soldiers hence there is a M:N relationship between the two entities.
- Each Soldier has a family whose details are stored in the form of Father's name, Number of children and his/her marital status.
- There are three inventories which belong to a particular regiment namely – Weapons inventory, Vehicle Inventory and Equipment Inventory.
- A Soldier's posting information involves the period of time for which he/she was or will be posted in that particular region. The period of time for which the Soldier is posted will already be predefined by the Army (We already know the deadline date in the future).
- There is a Location table which will serve two purposes – Storing the detailed address of the Soldier and storing the detailed address of all the places where a Soldier has been posted.

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# Functional Dependencies and Primary Key

**1) Soldier -**

SoldierID -> {Sname, DOB, DOJ, Weight, Height, Gender, District, RegimentCode, Srank}

Since all the fields depend on SoldierID, $(SoldierID)^+$ -> R. Hence, SoldierID is the Primary Key.

**2) Regiment** -

RegimentCode -> {Rname, HQCity, CurrStrength, MaxStrength, CommanderID} {Rname, HQCity} -> {CurrStrength, MaxStrength}

Since all the fields depend on RegimentCode, $(RegimentCode)^+$ -> R. Hence, RegimentCode is Primary Key.

**3) Location** -

District -> {State, Country}

Since all the fields depend on District, $(District)^+$ -> R. Hence, the District is Primary Key.

**4) Family**-

{FatherName, SoldierID} -> {Children, MaritalStatus}

Since all the fields depend on {FatherName, SoldierID}, $(\{FatherName, SoldierID\})^+$ -> R.

Hence, {FatherName, SoldierID} is Primary Key.

**5) Posting relation**

**6) Medals**

MedalID -> {MedalName, Prize}

Since all the fields depend on MedalID, $(MedalID)^+$ -> R. Hence, MedalID is the Primary Key.

**7) Honors relation**

**8) Salary**

Srank->salary

Since all the fields depend on Srank, $(Srank)^+$ -> R.

Hence, Srank is Primary Key

**9) <u>Weapons_Inventory</u>**

{RegimentCode, WeaponID} -> Quantity
Since all the fields depend on {RegimentCode, WeaponID},
$(\{RegimentCode, WeaponID\})^+$ -> R.
Hence, {RegimentCode, WeaponID} is Primary Key.

**10) <u>Vehicle_Inventory</u>**

{RegimentCode, VehicleID} -> Quantity
Since all the fields depend on {RegimentCode, VehicleID},
$(\{RegimentCode, VehicleID\})^+$ -> R.
Hence, {RegimentCode, VehicleID} is Primary Key.

**11) <u>Equipment_Inventory</u>**

{RegimentCode, VehicleID} -> Quantity
Since all the fields depend on {RegimentCode, VehicleID},
$(\{RegimentCode, VehicleID\})^+$ -> R.
Hence, {RegimentCode, VehicleID} is Primary Key.

**12) <u>Weapon</u>**

WeaponID->{Wname, Wtype}
Since all the fields depend on WeaponID, $(WeaponID)^+$ -> R.
Hence, WeaponID is the Primary Key.

**13) <u>Vehicle</u>**

VehicleID->{Vname, Vtype, FuelType, ManYear}
{Vname, Vtype} -> {FuelType, ManYear}
Since all the fields depend on VehicleID, $(VehicleID)^+$ -> R.
Hence, VehicleID is the Primary Key.

**14) <u>Equipment</u>**

EquipmentID -> {Ename, Etype}
Since all the fields depend on EquipmentID,
$(EquipmentID)^+$ -> R. Hence, EquipmentID is Primary Key.

**15) <u>Operations</u>**

OperationCode->{Oname, StartDate, EndDate,Outcome}

Since all the fields depend on OperationCode,
$(OperationCode)^{+}$ -> R. Hence, OperationCode is PrimaryKey.

# Normalisation

1) **Soldier**

Primary key: SoldierID
All attributes depend on the SoldierID, hence the table is 2NF.
All attributes depend directly on SoldierID, hence the table is in 3NF.
All determinants(SoldierID) are candidate keys, hence the table is in BCNF.

2) **Regiment**

Primary key: RegimentCode
All attributes depend on the SoldierID, hence the table is 2NF.
All attributes depend directly on SoldierID, hence the table is in 3NF.
All determinants(SoldierID) are candidate keys, hence the table is in BCNF.

3) **Location**

Primary key: District
All attributes depend on the District, hence the table is 2NF.
All attributes depend directly on the District, hence the table is in 3NF. All determinants(District) are candidate keys, hence the table is in BCNF.z

4) **Family**

Primary key: {FatherName, SoldierID}
All attributes depend on the {FatherName, SoldierID}, hence the table is 2NF. All attributes depend directly on {FatherName, SoldierID}, hence the table is in 3NF. All determinants({FatherName, SoldierID}) are candidate keys, hence the table is in BCNF.

5) **Posting**

Primary key: {SoldierID, District}
All attributes depend on the {SoldierID, District}, hence the table is 2NF. All attributes depend directly on {SoldierID, District}, hence the table is in 3NF. All determinants({SoldierID, District}) are candidate keys, hence the table is in BCNF.

6) **Medals**

Primary key: MedalID
All attributes depend on the MedalID, hence the table is 2NF.
All attributes depend directly on MedalID, hence the table is in 3NF. All determinants(MedalID) are candidate keys, hence the table is in BCNF.

7) **Salary**

Primary key: sRank
All attributes depend on the sRank, hence the table is 2NF.
All attributes depend directly on sRank, hence the table is in 3NF.
All determinants(sRank) are candidate keys, hence the table is

in BCNF.

**8) Weapons inventory**

Primary key: {RegimentCode, WeaponID}

All attributes depend on the {RegimentCode, WeaponID}, hence the table is 2NF. All attributes depend directly on {RegimentCode, WeaponID}, hence the table is in 3NF.

All determinants{RegimentCode, WeaponID} are candidate keys, hence the table is in BCNF.

**9) Vehicle Inventory**

Primary key: {RegimentCode, VehicleID}

All attributes depend on the {RegimentCode, VehicleID}, hence the table is 2NF. All attributes depend directly on {RegimentCode, VehicleID}, hence the table is in 3NF.

All determinants{RegimentCode, VehicleID} are candidate keys, hence the table is in BCNF.

**10) Equipment inventory**

Primary key: {RegimentCode, EquipmentID}

All attributes depend on the {RegimentCode, EquipmentID}, hence the table is 2NF. All attributes depend directly on {RegimentCode, EquipmentID }, hence the table is in 3NF.

All determinants{RegimentCode, EquipmentID } are candidate keys, hence the table is in BCNF.

**11) Weapon**

Primary key: WeaponID

All attributes depend on the WeaponID, hence the table is 2NF.

All attributes depend directly on WeaponID, hence the table is in 3NF. All determinants (WeaponID) are candidate keys, hence the table is in BCNF.

**12) Vehicle**

Primary key: VehicleID

All attributes depend on the VehicleID, hence the table is 2NF.

All attributes depend directly on VehicleID, hence the table is in 3NF. All determinants (VehicleID) are candidate keys, hence the table is in BCNF.

**13) Equipment**

Primary key: EquipmentID

All attributes depend on the EquipmentID, hence the table is 2NF.

All attributes depend directly on EquipmentID, hence the table is in 3NF. All determinants (EquipmentID) are candidate keys, hence the table is in BCNF.

**14) Operations**

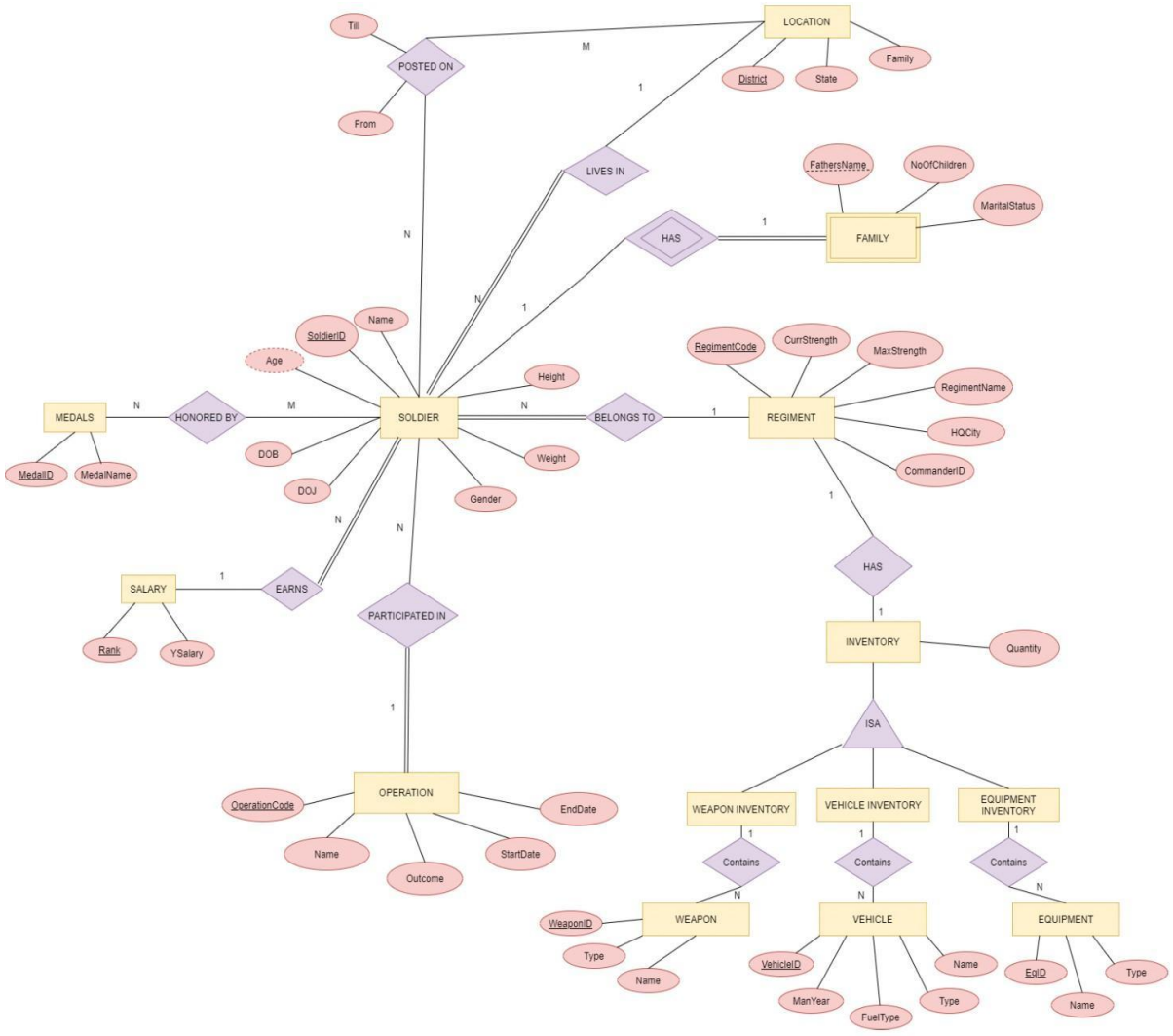
Primary key: OperationCode

All attributes depend on the OperationCode, hence the table is 2NF.

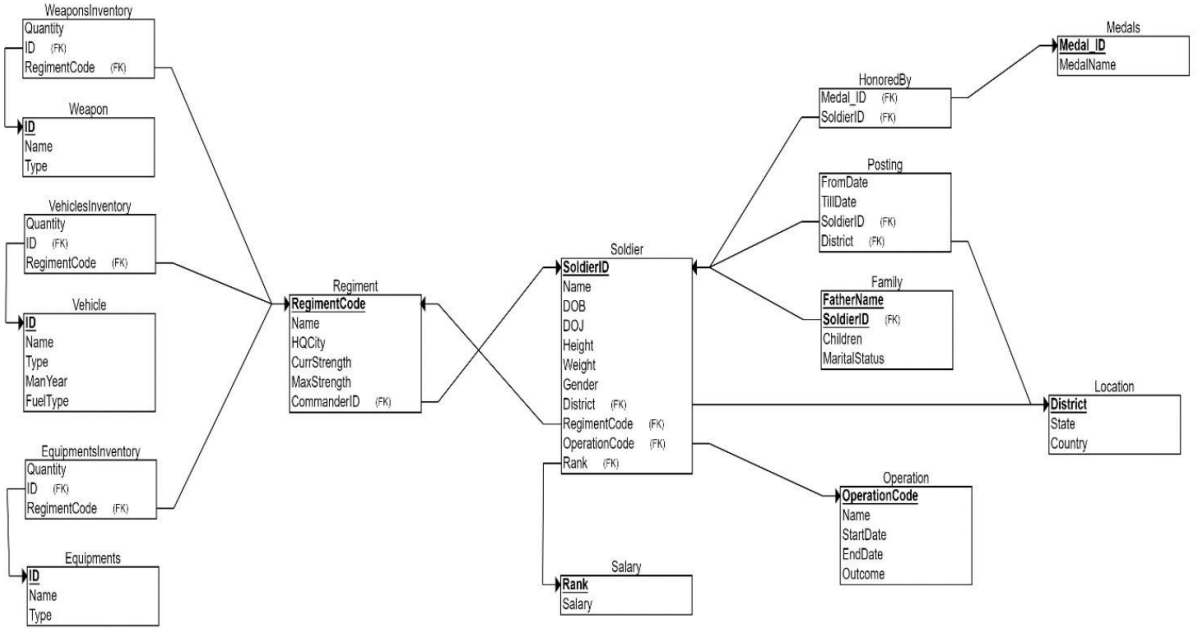
All attributes depend directly on OperationCode, hence the table is in 3NF. All determinants (OperationCode) are candidate keys, hence the

table is in BCNF.

# ER Diagram :-


LOCATION
Till
POSTED ON
From
M
1
District
State
Family
LIVES IN
FathersName
NoOfChildren
MaritalStatus
HAS
FAMILY
1
N
N
1
Name
SoldierID
Age
Height
RegimentCode
CurrStrength
MaxStrength
RegimentName
MEDALS
N
HONORED BY
M
SOLDIER
N
BELONGS TO
1
REGIMENT
HQCity
DOB
Weight
CommanderID
MedalID
MedalName
DOJ
Gender
N
N
1
HAS
SALARY
1
EARNS
PARTICIPATED IN
1
INVENTORY
Quantity
Rank
YSalary
ISA
OperationCode
OPERATION
EndDate
WEAPON INVENTORY
VEHICLE INVENTORY
EQUIPMENT INVENTORY
Name
Outcome
StartDate
Contains
Contains
Contains
N
N
N
WeaponID
WEAPON
VEHICLE
EQUIPMENT
Type
Name
VehicleID
Name
EqID
Type
ManYear
Type
Name
FuelType

# Relational Schema with Normalised Tables :-



# SQL Code:

/* CREATE ALL THE TABLES */

```
create table regiment (
regimentcode varchar(20) Primary key,
   rname varchar(20) not null,
hqcity varchar(20) not null,
   currstrength int not null,
maxstrength int not null,
commanderid varchar(20) not null
);

create table location (
district varchar(20) primary key,
   state varchar(20) not null,
country varchar(20) not null
);

create table salary(
sRank varchar(20) Primary key,
   salary INT not null
);

create table operation (
operationcode varchar(20) primary key,
   oname varchar(20) not null,
startdate date not null,
   enddate date not null,
outcome varchar(20) not null
);

create table soldier (
soldierid varchar(20) Primary key,
   sname varchar(20) not null,
dob date not null,
   doj date not null,
height int not null,
   weight int not null,
```

```
district varchar(20) not null,
   regimentcode varchar(20),
operationcode varchar(20),
   srank varchar(20) not
   null,
foreign key(district) references location(district),
foreign key (regimentcode) references regiment(regimentcode),
   foreign key (operationcode) references
operation(operationcode),
foreign key (srank) references salary(srank)
);

create table weapon (
weaponid varchar(20) Primary key,
   wname varchar(20) not null,
wtype varchar(20) not null
);

create table vehicle (
vehicleid varchar(20) Primary key,
   vname varchar(20) not null,
vtype varchar(20) not null,
fueltype varchar(20) not null,
   manyear int not null
);

create table equipment (
equipmentid varchar(20) Primary key,
   ename varchar(20) not null,
etype varchar(20) not null
);

create table
   weaponsinventory (
   quantity int not null,
```

```
regimentcode varchar(20) not null,
   vehicleid varchar(20) not null,
   foreign key (regimentcode) references
regiment (regimentcode),
foreign key (vehicleid) references vehicle(vehicleid)
);

create table
   equipmentsinventory (
   quantity int not null,
regimentcode varchar(20) not null,
   equipmentid varchar(20) not
   null,
   foreign key (regimentcode) references
regiment (regimentcode),
foreign key (equipmentid) references equipment(equipmentid)
);

create table medals (
medalid varchar(20) primary key,
   medalname varchar(20) not
   null, prize INT not null
);

create table honors (
medalid varchar(20) not null,
soldierid varchar(20) not null,
foreign key (medalid) references medals(medalid),
foreign key (soldierid) references soldier (soldierid)
);

create table posting
   ( pfrom date not
   null, ptill date
   not null,
```

```
maritalstatus char not null,
foreign key (soldierid) references soldier (soldierid),
   primary key(soldierid, fathername)
);
```

/* INSERT VALUES IN THE TABLE */

```
INSERT INTO
   regiment
VALUES
(
"R01", "Kumaon Regiment", "Ranikhet",57,85, "S12"
),
( "R02", "Rajput Regiment", "Fatehgarh",61,100, "S05"
),
( "R03", "Sikh Regiment", "Ramgarh", 75, 120, "S10"
),
( "R04", "Jat Regiment", "Bareilly", 51, 95, "S18"
);

INSERT INTO
   operation
VALUES
( "O01", "Operation Sahyog", '2018-09-24', '2018-11- 17',
"Successful"
),
( "O02", "Operation Calm Down", '2016-05-11', '2016- 08-02',
"Successful"
),
( "O03", "Operation All Out", '2015-06-13', '2015-07- 22',
"Unsuccessful"
),
( "O04", "Operation Maitri", '2015-02-02', '2015-05- 07',
"Successful"
);

INSERT INTO
   salary
VALUES
("Soldier", 25000),
```

```
("Major", 58000),
("Captain", 47500),
("Colonel", 65000),
("Brigadier", 73000),
("Lieutenant", 35000);

INSERT INTO
   locat
ion
VALUES
("Lucknow", "Uttar Pradesh", "India"),
("Bhopal", "Madhya Pradesh", "India"),
("Meerut", "Uttar Pradesh", "India"),
("Patna", "Bihar", "India"),
("Jalandhar", "Punjab", "India"),
("Almora", "Uttarakhand", "India"),
("Chandigarh", "Punjab", "India"),
("Tehri", "Uttarakhand", "India"),
("Indore", "Madhya Pradesh", "India"),
   ("Allahabad", "Uttar Pradesh",
   "India");

INSERT INTO
   sold
ier
VALUES
( "S01", "Arjun Pratap", '1987-12-12', '2009-03-13',
176,
72, 'M', "Bhopal", "R02", "O03", "Colonel"
),
( "S02", "Saurabh Pandit", '1980-02-15', '2008-12-09',
179,
73, 'M', "Meerut", "R02", "O02", "Soldier"
),
( "S03", "Shubham Verma", '1990-02-24', '2011-04-15',
```

```
),
( "S06", "Hamid Ahmed", '1976-06-10', '2004-02-24',
168,
70, 'M', "Chandigarh", "R01", "O01", "Brigadier"
),
( "S07", "Ajay Singh", '1984-04-12', '2003-07-09',
175,
79, 'M', "Chandigarh", "R04", "O04", "Lieutenant"
),
( "S08", "Avantika Kulkarni", '1990-04-26', '2009-08-18',
164,
62, 'F', "Indore", "R04", "O02", "Soldier"
),
( "S09", "Abhishek Saxena", '1975-05-12', '2012-05-16',
181,
76, 'M', "Tehri", "R01", "O01", "Brigadier"
),
( "S10", "Rajveer Singh", '1969-02-15', '2000-03-25',
173,
70, 'M', "Allahabad", "R03", "O02", "Captain"
),
( "S11", "Karan Jagtap", '1988-02-05', '2011-09-02',
167,
70, 'M', "Allahabad", "R04", "O03", "Captain"
),
( "S12", "Vinay Kumar", '1972-07-07', '2004-04-01',
169,
65, 'M', "Meerut", "R01", "O04", "Colonel"
),
( "S13", "Rajat Talesra", '1976-09-19', '2007-10-24',
172,
76, 'M', "Patna", "R02", "O03", "Colonel"
),
( "S14", "Ankur Ranjan", '1969-10-11', '2001-07-22',
```

```
171,
69, 'M', "Lucknow", "R02", "O02", "Lieutenant"
),
( "S17", "Dheeru Sachdev", '1981-01-19', '2015-12-31',
168,
66, 'M', "Tehri", "R03", "O01", "Soldier"
),
( "S18", "Vipul Yadav", '1975-06-05', '2004-01-24',
179,
74, 'M', "Indore", "R04", "O03", "Major"
),
( "S19", "Brijmohan Singh", '1998-11-25', '2014-02-12',
173,
65, 'M', "Lucknow", "R01", "O04", "Soldier"
),
( "S20", "Harminder Kaur", '1971-12-17', '2015-11-25',
165,
62, 'F', "Patna", "R02", "O04", "Colonel"
);

INSERT INTO
   wea
pon
VALUES
("W01", "Glock 17", "Pistol"),
("W02", "SPAS 15", "Shotgun"),
("W03", "Micro UZI", "SMG"),
("W04", "MP5", "SMG"),
("W05", "Steyr AUG", "AR"),
("W06", "AKM", "AR"),
("W07", "Barrett M95", "Sniper Rifle"),
("W08", "M4A1 Carbine", "AR"),
("W09", "Steyr SSG", "Sniper Rifle"),
("W10", "M249", "Machine Gun");
```

```
("V04", "Isuzu F", "Carrier", "Diesel", 2007),
(  "V05",     "Arjun MBT", "Battle Tank",      "Petrol", 1990
),
("V06", "Ajeya", "Battle Tank", "Diesel", 1996),
(  "V07",     "Sarath",     "Infantry combat",  "Diesel", 2011
),
(  "V08",     "Mazda R1",   "Light Utility",    "Petrol", 2009
);

INSERT INTO
   equipm
ent
VALUES
("E01", "MKU Helmet", "Protective gear"),
   ("E02", "Kevlar Vest", "Protective
   gear"), ("E03", "Nigh Vision Goggle",
   "Utility"), ("E04", "HE Grenade",
   "Utility"),
("E05", "Health Pack", "Medicine"),
("E06", "First Aid Kit", "Medicine");

INSERT INTO
   weaponsinvent
ory VALUES
(12, "R01", "W01"),
(8, "R01", "W02"),
(6, "R01", "W03"),
(8, "R01", "W04"),
(7, "R01", "W05"),
(5, "R01", "W06"),
(4, "R01", "W07"),
(3, "R01", "W08"),
(8, "R01", "W09"),
(4, "R01", "W10"),
(15, "R02", "W01"),
```

```
    (20, "R03",
    "W01"),
    (10, "R03",
    "W02"),
    (9, "R03",
    "W03"),
    (5, "R03",
    "W04"),
    (6, "R03",
    "W05"),
    (7, "R03",
    "W06"),
    (8, "R03",
    "W07"),
    (10, "R03",
    "W08"),
    (4, "R03",
    "W09"),
    (5, "R03",
    "W10"),
    (16, "R04",
    "W01")
INSERT INTO
    vehiclesinvent
ory VALUES
    (5, "R01",
    "V01"),
    (2, "R01",
    "V03"),
    (8, "R01",
    "V04"),
    (3, "R01",
    "V05"),
    (3, "R02",
    "V01"),
    (6, "R02",
    "V08"),
    (4, "R02",
    "V02"),
    (8, "R02",
    "V06"),
    (2, "R03",
INSERT ...
```

```
   equipmentsinvent
ory VALUES
(54, "R01", "E01"),
(37, "R01", "E02"),
(46, "R01", "E03"),
(42, "R01", "E04"),
(40, "R01", "E05"),
(42, "R01", "E06"),
(44, "R02", "E01"),
(57, "R02", "E02"),
(56, "R02", "E03"),
(62, "R02", "E04"),
(40, "R02", "E05"),
(72, "R02", "E06"),
(44, "R03", "E01"),
(32, "R03", "E02"),
(39, "R03", "E03"),
(60, "R03", "E04"),
(45, "R03", "E05"),
(35, "R03", "E06"),
(50, "R04", "E01"),
(30, "R04", "E02"),
(25, "R04", "E03"),
(58, "R04", "E04"),
(27, "R04", "E05"),
(38, "R04", "E06");

INSERT INTO
   med
als
VALUES
("M01", "Param Vir Chakra", 75000),
   ("M02", "Ashok Chakra", 65000),
("M03", "Kirti Chakra", 50000),
("M04", "Sarvottam Seva Medal", 42500),
```

```
("M01", "S01"),
("M02", "S12"),
("M03", "S05"),
("M01", "S10"),
("M03", "S18"),
("M02", "S19"),
("M05", "S10"),
("M04", "S18"),
("M01", "S18"),
("M06", "S01"),
("M02", "S03"),
("M05", "S05"),
("M01", "S07"),
("M04", "S08"),
("M02", "S09"),
("M04", "S20"),
("M06", "S16"),
("M05", "S04"),
("M06", "S03"),
("M02", "S15"),
("M03", "S03");

INSERT INTO
   post
ing
VALUES
('2017-10-23', '2020-10-22', "S01", "Lucknow"),
('2015-09-13', '2020-10-24', "S02", "Almora"),
('2016-07-02', '2020-08-10', "S03", "Tehri"),
('2017-11-11', '2020-11-12', "S04", "Meerut"),
('2015-10-07', '2020-11-09', "S05", "Patna"),
('2018-12-18', '2020-12-26', "S06", "Meerut"),
('2016-06-12', '2020-07-15', "S07", "Allahabad"),
('2015-10-13', '2020-11-20', "S08", "Patna"),
('2017-12-20', '2020-09-29', "S08", "Lucknow"),
```

```
('2017-07-19', '2020-05-18', "S15", "Bhopal"),
('2018-06-21', '2020-08-08', "S15", "Almora"),
('2016-07-16', '2020-02-12', "S16", "Chandigarh"),
('2017-03-21', '2020-04-12', "S16", "Tehri"),
('2015-05-11', '2020-06-04', "S16", "Lucknow"),
('2018-10-24', '2020-06-15', "S17", "Meerut"),
('2017-08-16', '2020-11-11', "S18", "Almora"),
('2015-04-21', '2020-07-15', "S19", "Allahabad"),
('2016-01-16', '2020-11-13', "S20", "Lucknow");

INSERT INTO
   fam
ily
VALUES
("Kuwar Pratap", "S01", 1, 'Y'),
("Ashok Pandit", "S02", 0, 'N'),
("Rajeev Verma", "S03", 0, 'Y'),
("Manas Kumvat", "S04", 0, 'N'),
("Nilesh Thakur", "S05", 0, 'Y'),
("Ajaz Ahmed", "S06", 0, 'N'),
("Shantanu Singh", "S07", 2, 'Y'),
("Mahesh Kulkarni", "S08", 2, 'Y'),
("Prateek Saxena", "S09", 2, 'Y'),
("Aman Singh", "S10", 3, 'Y'),
("Arjun Jagtap", "S11", 1, 'Y'),
("Vijay Kumar", "S12", 0, 'N'),
("Naman Talesra", "S13", 0, 'Y'),
("Aditya Ranjan", "S14", 1, 'Y'),
("Akbar Singh", "S15", 3, 'Y'),
("Dhirendra Arya", "S16", 0, 'N'),
("Harshvardhan Sachdev", "S17", 2, 'Y'),
("Umesh Yadav", "S18", 1, 'Y'),
("Balkishore Singh", "S19", 1, 'Y'),
```