



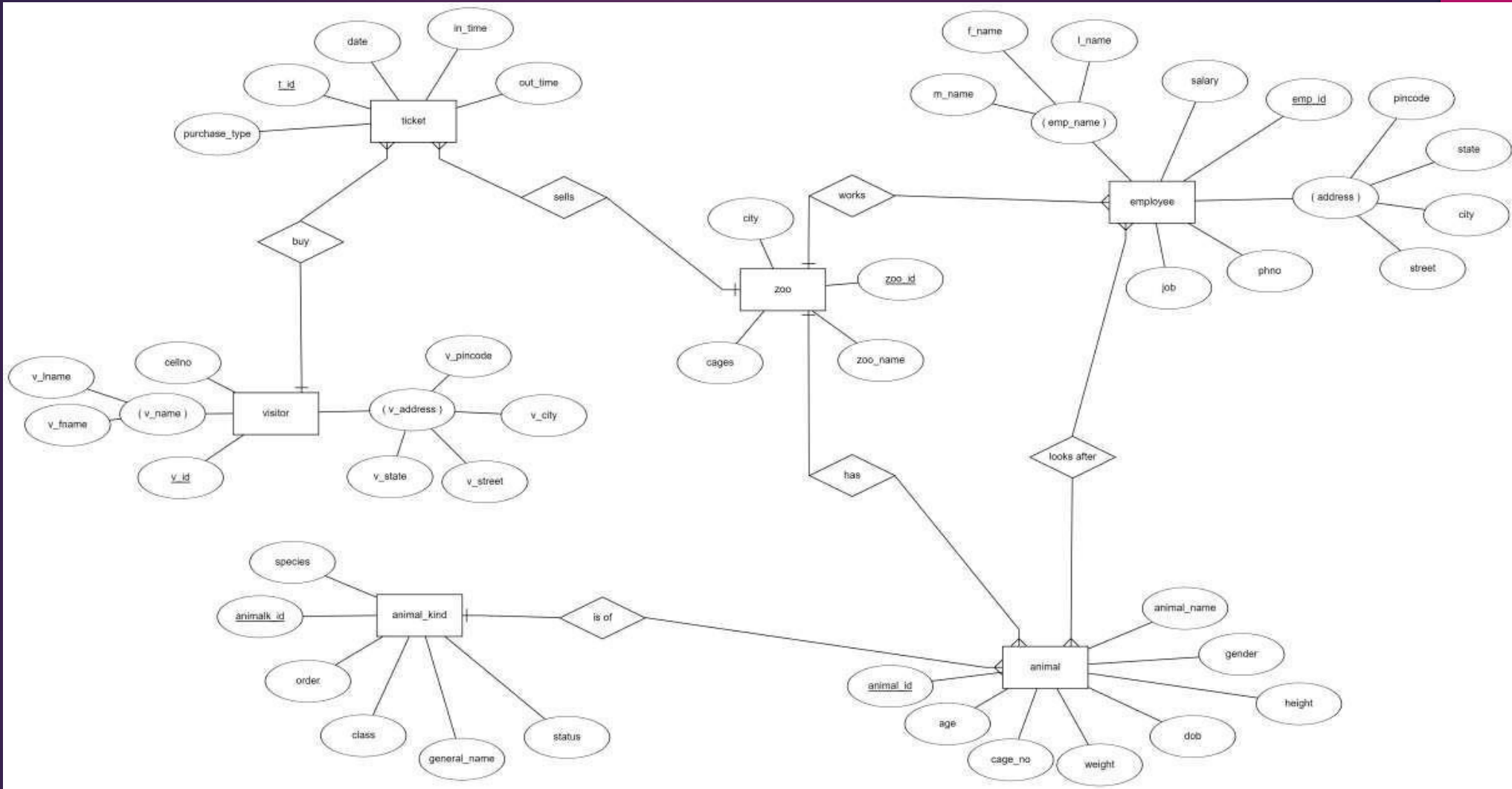
# National Institute of Technology, Warangal

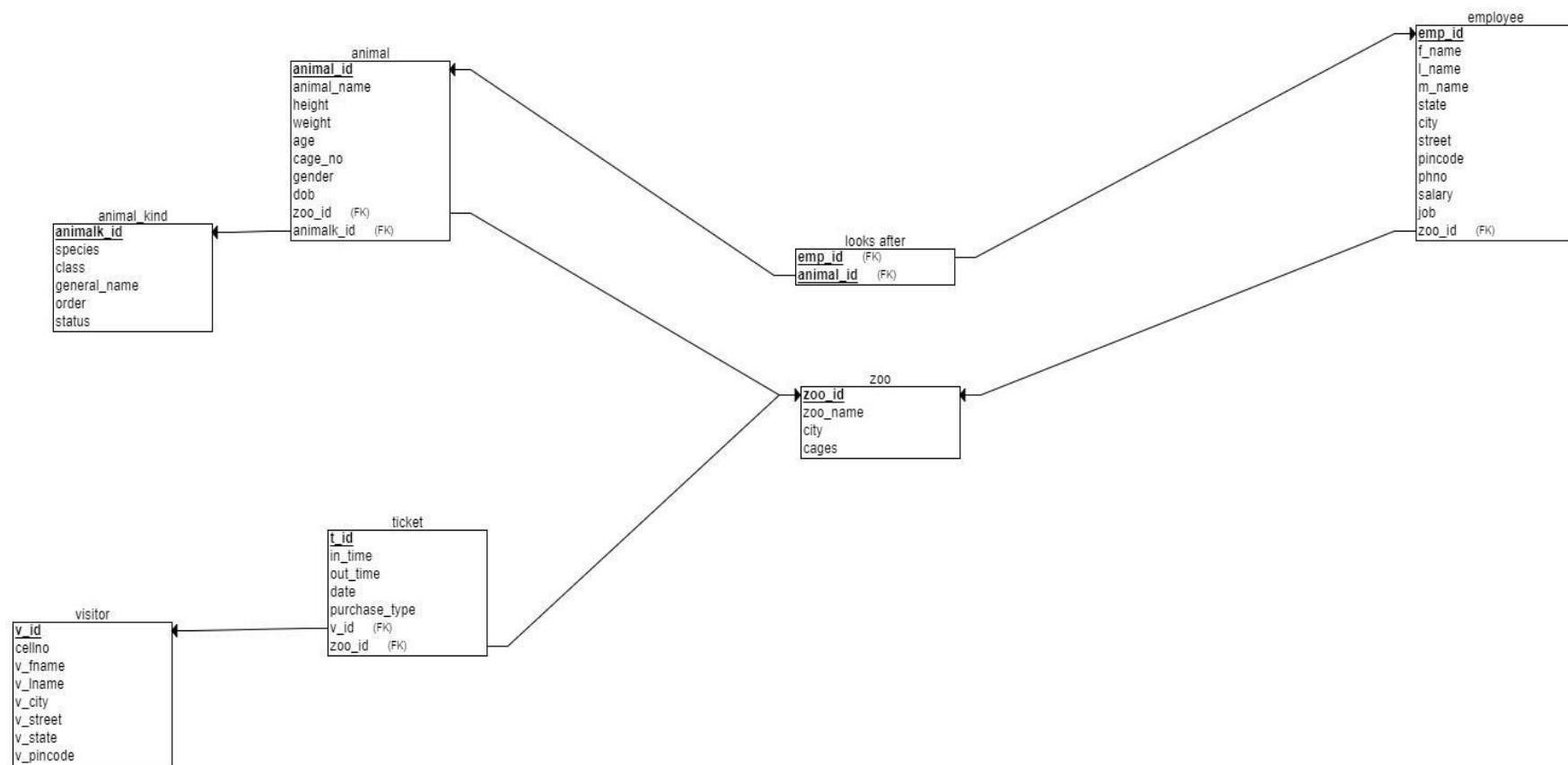
Department of Metallurgical and Materials Engineering

***ZOO MANAGEMENT DATABASE***

# Problem Statement

- ▶ To help for conservation of the Wildlife and to raise awareness amongst the future generation about the preservation of fauna, create a database for zoos. This database has information about animals present in zoo, employees who work and take care of animals at the zoo. Also, the databases has information about the visitors who visit zoo.





# Features Of Database :

## Features of Database:

- Basic information about the animals is available and new species can be included into database, updates, deletions of existing animals is possible.
- A track of visitors is maintained with some information about them.
- New employees can be added into zoos and updates about them and deletion can be done
- Tickets bought for an individual zoo can be recorded with also the type of payment method.
- Information about every animal present in a zoo is stored with options to add new animals into zoos, update the changes like change of caretaker and deletion of animal.

# Normalisation

### Entity: Animal Kind

- Animak\_id
- General\_name
- species
- Order
- Class
- Status

This makes the Data one 1NF,2NF as all the columns are atomic, partial dependencies and transitive dependency are not present in data. The presence of functional dependency between the columns, order and class where neither of both are candidate keys break the 3NF, thus to reduce redundancy and to safeguard against anomalies the table is broken into 2 parts.

### Entity: Taxonomy

- Order
- Class

This makes the data in 3NF, BCNF as the existing functional dependency between order and class is moved to another table.

### Entity: Animal

- Animal\_ID
- Animal\_name
- Origin
- Gender
- Weight
- Height
- Cage\_NO
- Age

This data follows all the normal forms 1NF, 2NF, 3NF and BCNF as there are no columns with non-atomic values, and each column has unique name, no partial, transitive dependencies.



## Entity: Employee

- Employee ID
- Employee First name
- Employee Last name
- Salary
- Role
- Phone number
- Pin Code
- Street
- City
- State

The 1st normal form is violated in column phone number, as an employee may possess more than 1 contact number, distinguishing his personal contact number and work. Thus, the table is broken with a new table consisting of contact numbers of each personnel. The 3NF, BCNF requirements are not met too, as the street depends on pin code, City depends on Street, State depends on City, i.e., there is a transitive dependency among the columns where none of them are candidate keys. Street, City, State are moved to another table with primary key as pin code.

#### Table: Contact

- Employee ID
- Phone number

#### Table: Address

- Pin code
- Street
- City

#### Table: Location

- City
- State

This breakdown of table into smaller table gives it all 4 normal forms namely 1NF, 2NF, 3NF, BCNF.

#### Entity: Zoo

- Zoo ID
- Zoo name
- City
- Capacity

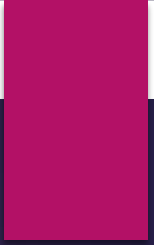
The data is in all 1NF, 2NF, 3NF, BCNF. Therefore, needing no breaking down of tables for normalization of data.

#### Entity: Visitor

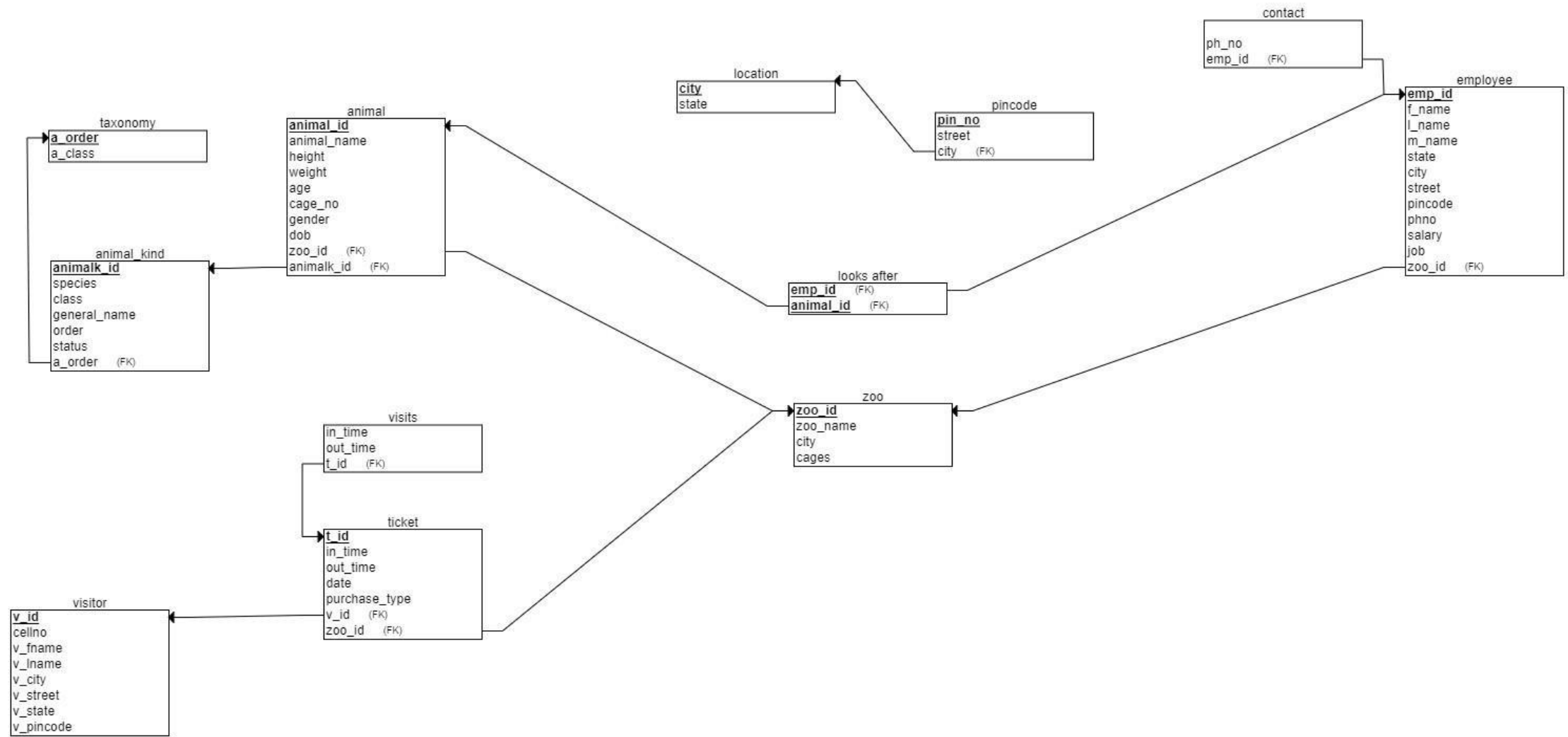
- Visitor ID
- Visitor First Name
- Visitor Last Name |
- Phone number
- Pin code
- Street
- City
- State

But creation of new tables is redundant as it already exists from breakdown of employee entity.

| Relation Name | Type         | Explanation  |
|---------------|--------------|--|
| BUY           | Many to 1    | 1 visitor can buy more than 1 ticket.<br>and 1 ticket can be given to 1 visitor only           |
| WORKS         | Many to 1    | A zoo has many working employees<br>and many employees can work in a single zoo                |
| SELLS         | Many to 1    | A zoo has many tickets and<br>many tickets can be sold by one zoo                              |
| IS_OF         | Many to 1    | Many animals belong to 1 kingdom(animal species)<br>and single animal have 1 animal kind       |
| LOOKS_AFTER   | Many to Many | Many Employees can look after one animal<br>Many animals can be looked upon by single employee |
| HAS           | Many to 1    | One Zoo has many animals and<br>many animals can live in One zoo                               |



Relational schema  
after normalisation





# Creation of tables and insertion of data

```
create table zoo
(
zoo_id number primary key,
zoo_name varchar(100),
city varchar(100),
cages number
);
```

```
INSERT INTO zoo VALUES (10003, 'Sri Venkateswara Zoological Park', 'Tirupati', 69);
INSERT INTO zoo VALUES (10004, 'Kakatiya Zoological Park', 'Hanmakonda', 102);
INSERT INTO zoo VALUES (10007, 'Nehru Zoological Park', 'Hyderabad', 43);
INSERT INTO zoo VALUES (10009, 'Indira Gandhi Zoological Park', 'Visakhapatnam',39);
```

| ZOO_ID | ZOO_NAME                         | CITY          | CAGES |
|--------|----------------------------------|---------------|-------|
| 10009  | Indira Gandhi Zoological Park    | Visakhapatnam | 39    |
| 10003  | Sri Venkateswara Zoological Park | Tirupati      | 69    |
| 10004  | Kakatiya Zoological Park         | Hanmakonda    | 102   |
| 10007  | Nehru Zoological Park            | Hyderabad     | 43    |



```
create table taxonomy(  
    a_order varchar(100) primary key,  
    a_class varchar(100)  
);  
INSERT INTO taxonomy VALUES ('Anura', 'Amphibia'); INSERT  
INTO taxonomy VALUES ('Artiodactyla', 'Mammalia'); INSERT  
INTO taxonomy VALUES ('Cardiida', 'invertebrate');  
INSERT INTO taxonomy VALUES ('Carnivora', 'Mammalia');  
INSERT INTO taxonomy VALUES ('Casuariiformes', 'Aves');  
INSERT INTO taxonomy VALUES ('Ciconiiformes', 'Aves');  
INSERT INTO taxonomy VALUES ('Crocodilia', 'Reptilia'); INSERT  
INTO taxonomy VALUES ('Cyclopoida', 'Hexanauplia'); INSERT  
INTO taxonomy VALUES ('Decapoda', 'invertebrate'); INSERT  
INTO taxonomy VALUES ('Galliformes', 'Aves');
```

| A_ORDER        | A_CLASS      |
|----------------|--------------|
| Anura          | Amphibia     |
| Artiodactyla   | Mammalia     |
| Cardiida       | invertebrate |
| Carnivora      | Mammalia     |
| Casuariiformes | Aves         |
| Ciconiiformes  | Aves         |
| Crocodilia     | Reptilia     |
| Cyclopoida     | Hexanauplia  |
| Decapoda       | invertebrate |
| Galliformes    | Aves         |

```
create table animal_kind
(
  animalk_id NUMBER primary key,
  general_name varchar(100),
  species varchar(100),
  a_order varchar(100),
  foreign key(a_order) references taxonomy(a_order),
  status varchar(10)
);
```

```
INSERT INTO animal_kind VALUES (105001, 'Bengal Tiger', 'Panthera tigris tigris', 'Carnivora', 'EN');
INSERT INTO animal_kind VALUES (105002, 'African Lion', 'Panthera leo leo', 'Carnivora', 'VU');
INSERT INTO animal_kind VALUES (105003, 'Chimpanzee', 'Pan troglodytes', 'primate', 'EN');
INSERT INTO animal_kind VALUES (106001, 'King Cobra', 'Ophiophagus hannah', 'serpentes', 'VU');
INSERT INTO animal_kind VALUES (102001, 'Openbill Stork', 'Anastomus oscitans', 'Ciconiiformes', 'LC');
INSERT INTO animal_kind VALUES (101001, 'Red Eye Tree Frog', 'Agalychnis callidryas', 'Anura', 'LC');
INSERT INTO animal_kind VALUES (101002, 'Asiatic salamanders', 'Hynobius oyamai', 'Urodela', 'VU');
```

```
INSERT INTO animal_kind VALUES (103001, 'Lined Seahorse', 'Hippocampus erectus', 'Syngnathiformes', 'VU');
INSERT INTO animal_kind VALUES (101003, 'Axolotl', 'Ambystoma mexicanum', 'Urodela', 'CR');
INSERT INTO animal_kind VALUES (104001, 'Crustaceans', 'Acanthocyclops hypogeus', 'Cyclopoida', 'VU');
```

| ANIMALK_ID | GENERAL_NAME      | SPECIES                 | A_ORDER       | STATUS |
|------------|-------------------|-------------------------|---------------|--------|
| 105001     | Bengal Tiger      | Panthera tigris tigris  | Carnivora     | EN     |
| 105002     | African Lion      | Panthera leo leo        | Carnivora     | VU     |
| 102001     | Openbill Stork    | Anastomus oscitans      | Ciconiiformes | LC     |
| 101001     | Red Eye Tree Frog | Agalychnis callidryas   | Anura         | LC     |
| 104001     | Crustaceans       | Acanthocyclops hypogeus | Cyclopoida    | VU     |

[Download CSV](#)

```
create table animal(  
  animal_id number primary key,  
  animal_name varchar(100),  
  cage_no number,  
  height number,  
  weight number,  
  age number,  
  gender  varchar(10),  
  origin  varchar(100),  
  animalk_id NUMBER,  
  FOREIGN KEY (animalk_id) REFERENCES  
  animal_kind(animalk_id),  
  zoo_id number,  
  FOREIGN KEY(zoo_id) REFERENCES zoo(zoo_id)  
);
```

```

INSERT INTO animal VALUES (30001, 'King Cobra', 101, 23, 1, 2, 'M', 'North america', 105001, 10009);
INSERT INTO animal VALUES (30002, 'Monkey', 102, 31, 15, 9, 'M', 'africa', 105002, 10009);
INSERT INTO animal VALUES (30004, 'Alligator', 104, 60, 19, 5, 'M', 'india', 102001, 10003);
INSERT INTO animal VALUES (30005, 'Elephant', 105, 188, 430, 21, 'F', 'North america', 101001, 10003);
INSERT INTO animal VALUES (30006, 'Hyena', 106, 265, 11, 8, 'M', 'india', 104001, 10004);
INSERT INTO animal VALUES (30007, 'Ostrich', 107, 90, 7, 6, 'F', 'UK', 105001, 10004);
INSERT INTO animal VALUES (30008, 'Hippopotamus', 108, 305, 11, 5, 'M', 'india', 102001, 10007);
INSERT INTO animal VALUES (30009, 'Zebra', 109, 168, 43, 11, 'M', 'Australia', 105002, 10003);
INSERT INTO animal VALUES (30010, 'PeaCock', 110, 22, 23, 2, 'F', 'North america', 104001, 10009);
INSERT INTO animal VALUES (30011, 'White Tiger', 111, 130, 245, 7, 'M', 'india', 101001, 10003);

```

| ANIMAL_ID | ANIMAL_NAME  | CAGE_NO | HEIGHT | WEIGHT | AGE | GENDER | ORIGIN        | ANIMALK_ID | ZOO_ID |
|-----------|--------------|---------|--------|--------|-----|--------|---------------|------------|--------|
| 30010     | PeaCock      | 110     | 22     | 23     | 2   | F      | North america | 104001     | 10009  |
| 30004     | Alligator    | 104     | 60     | 19     | 5   | M      | india         | 102001     | 10003  |
| 30005     | Elephant     | 105     | 188    | 430    | 21  | F      | North america | 101001     | 10003  |
| 30006     | Hyena        | 106     | 265    | 11     | 8   | M      | india         | 104001     | 10004  |
| 30007     | Ostrich      | 107     | 90     | 7      | 6   | F      | UK            | 105001     | 10004  |
| 30008     | Hippopotamus | 108     | 305    | 11     | 5   | M      | india         | 102001     | 10007  |
| 30009     | zebra        | 109     | 168    | 43     | 11  | M      | Australia     | 105002     | 10003  |
| 30011     | White Tiger  | 111     | 130    | 245    | 7   | M      | india         | 101001     | 10003  |
| 30001     | Kinf Cobra   | 101     | 23     | 1      | 2   | M      | North america | 105001     | 10009  |
| 30002     | Monkey       | 102     | 31     | 15     | 9   | M      | africa        | 105002     | 10009  |

```
create table location(  
city varchar(100) primary key,  
state varchar(100));
```

```
INSERT INTO location VALUES ('Hyderabad', 'Telangana');  
INSERT INTO location VALUES ('Warangal', 'Telanagana');  
INSERT INTO location VALUES ('Visakhapatnam', 'Andharapradesh');  
INSERT INTO location VALUES ('Tirupathi', 'Andhara pradesh');
```

| CITY          | STATE           |
|---------------|-----------------|
| Hyderabad     | Telangana       |
| Warangal      | Telanagana      |
| Visakhapatnam | Andhara pradesh |
| Tirupathi     | Andhara pradesh |

```
create table pincode(  
  pinnum number primary key,  
  street varchar(100),  
  city varchar(100),  
  FOREIGN KEY (city) REFERENCES location(city));
```

```
INSERT INTO PINCODE VALUES (500002, 'DILSHUKNAGAR', 'HYDERABAD');  
INSERT INTO PINCODE VALUES (500016, 'BANJARA HILLS', 'HYDERABAD');  
INSERT INTO PINCODE VALUES (500060, 'VIDYANAGAR', 'HYDERABAD');  
INSERT INTO PINCODE VALUES (500069, 'MIYAPUR', 'HYDERABAD');  
INSERT INTO PINCODE VALUES (500125, 'KUKATPALLI', 'HYDERABAD');  
INSERT INTO PINCODE VALUES (600004, 'KAZIPET', 'WARANGAL');  
INSERT INTO PINCODE VALUES (600008, 'SUBEDARI', 'WARANGAL');  
INSERT INTO PINCODE VALUES (600021, 'LB NAGAR', 'WARANGAL');  
INSERT INTO PINCODE VALUES (600035, 'SHAMBUNIPET', 'WARANGAL');  
INSERT INTO PINCODE VALUES (600055, 'HANMAKONDA', 'WARANGAL');
```

| PINNUM | STREET        | CITY      |
|--------|---------------|-----------|
| 500002 | Dilshuknagar  | Hyderabad |
| 500016 | Banjara Hills | Hyderabad |
| 500060 | Widyanagar    | Hyderabad |
| 500069 | Miyapur       | Hyderabad |
| 500125 | Kukatpalli    | Hyderabad |
| 600004 | Kazipet       | Warangal  |
| 600008 | Subedari      | Warangal  |
| 600021 | LB nagar      | Warangal  |
| 600035 | Shambunipet   | Warangal  |
| 600055 | Hanmakonda    | Warangal  |

```
CREATE TABLE EMPLOYEE
```

```
(  
  EMP_ID NUMBER PRIMARY KEY,  
  EMP_FNAME VARCHAR(100),  
  EMP_MNAME VARCHAR(100),  
  EMP_LNAME VARCHAR(100),  
  SALARY NUMBER,  
  ZOO_ID NUMBER,  
  FOREIGN KEY (ZOO_ID) REFERENCES ZOO (ZOO_ID),  
  PINNUM NUMBER,  
  FOREIGN KEY (PINNUM) REFERENCES PINCODE (PINNUM)  
);
```

```
INSERT INTO EMPLOYEE VALUES (1001, 'RAGHU', 'PHANESH', 'SANITARY', 60000, 10004, 500001);  
INSERT INTO EMPLOYEE VALUES (1002, 'SANKAR', 'KOLAPALI', 'SECURITY', 15000, 10009, 500016);  
INSERT INTO EMPLOYEE VALUES (1003, 'SAMVIDHA', 'JAARON', 'CAGEKEEPER', 15000, 10007, 600055);  
INSERT INTO EMPLOYEE VALUES (1004, 'ROHITH', 'PINNAMRAJU', 'GATEKEEPER', 15000, 10004, 500125);  
INSERT INTO EMPLOYEE VALUES (1005, 'NAVEEN', 'ALLU RATNA', 'CAGEKEEPER', 15000, 10003, 500125);  
INSERT INTO EMPLOYEE VALUES (1006, 'VARUN', 'REDDY', 'CAGEKEEPER', 20000, 10007, 500125);  
INSERT INTO EMPLOYEE VALUES (1007, 'RAJESH', 'AMARAGANI', 'CAGEKEEPER', 15000, 10009, 600021);  
INSERT INTO EMPLOYEE VALUES (1008, 'WASEEM', 'AGARWAL', 'CAGEKEEPER', 15000, 10003, 500001);  
INSERT INTO EMPLOYEE VALUES (1009, 'VINAY', 'GUNDAPALLI', 'CAGEKEEPER', 20000, 10009, 600008);  
INSERT INTO EMPLOYEE VALUES (1010, 'SHIVAREDDY', 'RAMALA', 'CAGEKEEPER', 20000, 10007, 600055);
```

| EMP_ID | EMP_FNAME   | EMP_MNAME  | EMP_LNAME  | SALARY | ZOO_ID | PINNUM |
|--------|-------------|------------|------------|--------|--------|--------|
| 1002   | Sankar      | kolapali   | security   | 15000  | 10009  | 500016 |
| 1003   | Samvidha    | jaaron     | cagekeeper | 15000  | 10007  | 600055 |
| 1004   | Rohith      | pinnamraju | gatekeeper | 15000  | 10004  | 500125 |
| 1005   | naveen      | allu ratna | cagekeeper | 15000  | 10003  | 500125 |
| 1006   | varun       | reddy      | cagekeeper | 20000  | 10007  | 500125 |
| 1007   | rajesh      | Amaragani  | cagekeeper | 15000  | 10009  | 600021 |
| 1009   | vinay       | Gundapalli | cagekeeper | 20000  | 10009  | 600008 |
| 1010   | shiva reddy | ramala     | cagekeeper | 20000  | 10007  | 600055 |



```
create table contact(  
  emp_id number,  
  FOREIGN KEY (emp_id) REFERENCES employee(emp_id),  
  number);
```

```
INSERT INTO contact VALUES (1001, 8741122565);  
INSERT INTO contact VALUES (1002, 6179485234);  
INSERT INTO contact VALUES (1003, 7849562134);  
INSERT INTO contact VALUES (1004, 9844565225);  
INSERT INTO contact VALUES (1005, 9848522338);  
INSERT INTO contact VALUES (1006, 6320154879);  
INSERT INTO contact VALUES (1007, 8484879111);  
INSERT INTO contact VALUES (1008, 9787488845);  
INSERT INTO contact VALUES (1009, 9784684135);  
INSERT INTO contact VALUES (1010, 7454846513);
```

| EMP_ID | PHONE_NO   |
|--------|------------|
| 1002   | 6179485234 |
| 1003   | 7849562134 |
| 1004   | 9844565225 |
| 1005   | 9848522338 |
| 1006   | 6320154879 |
| 1007   | 8484879111 |
| 1009   | 9784684135 |
| 1010   | 7454846513 |

```
create table visitor(  v_id number PRIMARY KEY,  
  phone_no number,  
  pinnum number,  foreign key (pinnum) references pincode(pinnum),  
  v_fname varchar(100),  
  v_lname varchar(100)  
);
```

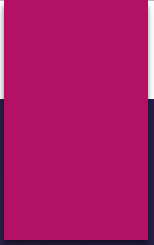
```
INSERT INTO visitor VALUES (1000002, 8247423616, 500001, 'Sandhya', 'Dhanavath');  
INSERT INTO visitor VALUES (1000003, 9848522338, 500002, 'Shankar', 'Tejavath');  
INSERT INTO visitor VALUES (1000004, 7532148967, 500060, 'Waseem', 'Syed' );  
INSERT INTO visitor VALUES (1000005, 6459783120, 500125, 'Manoj', 'Boganadham');  
INSERT INTO visitor VALUES (1000006, 8524615397, 500069, 'Infi', 'Chan');  
INSERT INTO visitor VALUES (1000007, 9754125896, 600004, 'Bhushank', 'Kul');  
INSERT INTO visitor VALUES (1000008, 8462157930, 600055, 'Abhiram', 'Nallama');  
INSERT INTO visitor VALUES (1000009, 6841759325, 600008, 'Ashish', 'Anand');  
INSERT INTO visitor VALUES (1000010, 8945632178, 600154, 'Lakshita', 'Chowdary');  
INSERT INTO visitor VALUES (1000011, 9685741232, 600035, 'Nayan', 'Jyothi');  
INSERT INTO visitor VALUES (1000012, 8675941236, 600021, 'Ranil', 'Bala');  
INSERT INTO visitor VALUES (1000013, 7849562134, 600154, 'Tanisha', 'Agarwal');
```

| V_ID    | PHONE_NO   | PINNUM | V_FNAME  | V_LNAME    |
|---------|------------|--------|----------|------------|
| 1000003 | 9848522338 | 500002 | Shankar  | Tejavath   |
| 1000004 | 7532148967 | 500060 | Waseem   | Syed       |
| 1000005 | 6459783120 | 500125 | Manoj    | Boganadham |
| 1000006 | 8524615397 | 500069 | Infi     | Chan       |
| 1000007 | 9754125896 | 600004 | Bhushank | Kul        |
| 1000008 | 8462157930 | 600055 | Abhiram  | Nallama    |
| 1000009 | 6841759325 | 600008 | Ashish   | Anand      |
| 1000011 | 9685741232 | 600035 | Nayan    | Jyothi     |
| 1000012 | 8675941236 | 600021 | Ranil    | bala       |

```
create table purchase(  
purchase_id number primary key,  
varchar(100));
```

```
insert into purchase values(102,'Credit Card');  
insert into purchase values(103,'Cash');  
insert into purchase values(104,'UPI');  
insert into purchase values(105,'e-wallets');
```

| PURCHASE_ID | PURCHASE_NAME |
|-------------|---------------|
| 102         | Credit Card   |
| 103         | Cash          |
| 104         | UPI           |
| 105         | e-Wallets     |



```
create table ticket(  
  ticket_id number primary key,  
  ticket_date date,  
  v_id number,  
    FOREIGN KEY (v_id) REFERENCES visitor(v_id),  
  purchase_id number,  
    FOREIGN KEY (purchase_id) REFERENCES purchase(purchase_id),  
  zoo_id number,    FOREIGN KEY (zoo_id) REFERENCES zoo(zoo_id));
```

```
INSERT INTO ticket VALUES (9034351, '15-08-2020', 1000002, 104, 10004);  
INSERT INTO ticket VALUES (2110003, '15-02-2020', 1000003, 104, 10007);  
INSERT INTO ticket VALUES (6382682, '15-02-2020', 1000004, 103, 10003);  
INSERT INTO ticket VALUES (6824217, '14-02-2020', 1000005, 102, 10007);  
INSERT INTO ticket VALUES (5193139, '15-02-2020', 1000006, 103, 10009);  
INSERT INTO ticket VALUES (5542291, '14-02-2020', 1000007, 102, 10003);  
INSERT INTO ticket VALUES (2580752, '14-02-2020', 1000008, 104, 10007);  
INSERT INTO ticket VALUES (9154961, '15-02-2020', 1000009, 102, 10007);  
INSERT INTO ticket VALUES (8391607, '14-02-2020', 1000010, 101, 10007);  
INSERT INTO ticket VALUES (1329791, '14-02-2020', 1000011, 102, 10007);
```

| TICKET_ID | TICKET_DATE | V_ID    | PURCHASE_ID | ZOO_ID |
|-----------|-------------|---------|-------------|--------|
| 2110003   | 15-02-2020  | 1000003 | 104         | 10007  |
| 6382682   | 15-02-2020  | 1000004 | 103         | 10003  |
| 6824217   | 14-02-2020  | 1000005 | 102         | 10007  |
| 5193139   | 15-02-2020  | 1000006 | 103         | 10009  |
| 5542291   | 14-02-2020  | 1000007 | 102         | 10003  |
| 2580752   | 14-02-2020  | 1000008 | 104         | 10007  |
| 9154961   | 15-02-2020  | 1000009 | 102         | 10007  |
| 1329791   | 14-02-2020  | 1000011 | 102         | 10007  |

```
create table looks_after(  
  animal_id number,  
  FOREIGN KEY (animal_id) REFERENCES animal(animal_id),  
  FOREIGN KEY (emp_id) REFERENCES employee(emp_id));
```

```
INSERT INTO looks_after(animal_id, emp_id) VALUES (30010, 1002);  
INSERT INTO looks_after(animal_id, emp_id) VALUES (30004, 1003);  
INSERT INTO looks_after(animal_id, emp_id) VALUES (30005, 1004);  
INSERT INTO looks_after(animal_id, emp_id) VALUES (30006, 1005);  
INSERT INTO looks_after(animal_id, emp_id) VALUES (30007, 1006);  
INSERT INTO looks_after(animal_id, emp_id) VALUES (30008, 1007);  
INSERT INTO looks_after(animal_id, emp_id) VALUES (30009, 1000);  
INSERT INTO looks_after(animal_id, emp_id) VALUES (30011, 1010);  
INSERT INTO looks_after(animal_id, emp_id) VALUES (30001, 1009);  
INSERT INTO looks_after(animal_id, emp_id) VALUES (30002, 1010);
```

| ANIMAL_ID | EMP_ID |
|-----------|--------|
| 30004     | 1005   |
| 30009     | 1005   |
| 30010     | 1002   |
| 30004     | 1003   |
| 30005     | 1004   |
| 30006     | 1005   |
| 30007     | 1006   |
| 30008     | 1007   |
| 30011     | 1010   |
| 30001     | 1009   |
| 30002     | 1010   |

```
create table visits(  
  ticket_id number PRIMARY KEY,  
  FOREIGN KEY (ticket_id) REFERENCES ticket(ticket_id), in_time TIMESTAMP,  
  out_time TIMESTAMP);
```

```
INSERT INTO visits VALUES (1329791, to_timestamp('16/02/2020 10:53:10', 'dd/mm/yyyy  
HH24:MI:SS'),to_timestamp( '16/02/2020 16:53:15','dd/mm/yyyy HH24:MI:SS'));INSERT INTO visits  
VALUES (9154961, to_timestamp('2020-02-16 10:53:45','yyyy/mm/dd HH24:MI:SS'),  
to_timestamp('2020-02-16 16:07:41','yyyy/mm/dd HH24:MI:SS'));INSERT INTO visits VALUES  
(5542291, TO_TIMESTAMP('2020/02/16 10:45:55','yyyy/mm/dd HH24:MI:SS'),  
TO_TIMESTAMP('2020/02/16 16:05:09','yyyy/mm/dd HH24:MI:SS'));INSERT INTO visits VALUES  
(5193139, TO_TIMESTAMP('2020/02/16 10:57:30','yyyy/mm/dd HH24:MI:SS'),  
TO_TIMESTAMP('2020/02/16 16:07:11','yyyy/mm/dd HH24:MI:SS'));INSERT INTO visits VALUES  
(6824217, TO_TIMESTAMP('2020/02/16 10:59:37','yyyy/mm/dd HH24:MI:SS'),  
TO_TIMESTAMP('2020/02/16 16:49:04','yyyy/mm/dd HH24:MI:SS'));INSERT INTO visits VALUES  
(2110003, TO_TIMESTAMP('2020/02/16 10:35:55','yyyy/mm/dd HH24:MI:SS'),  
TO_TIMESTAMP('2020/02/16 16:39:35','yyyy/mm/dd HH24:MI:SS'));INSERT INTO visits VALUES  
(6382682, TO_TIMESTAMP('2020/02/16 10:19:33','yyyy/mm/dd HH24:MI:SS'),  
TO_TIMESTAMP('2020/02/16 16:37:00','yyyy/mm/dd HH24:MI:SS'));
```



| TICKET_ID | IN_TIME                      | OUT_TIME                     |
|-----------|------------------------------|------------------------------|
| 6824217   | 16-FEB-20 10.59.37.000000 AM | 16-FEB-20 04.49.04.000000 PM |
| 1329791   | 16-FEB-20 10.53.10.000000 AM | 16-FEB-20 04.53.15.000000 PM |
| 9154961   | 16-FEB-20 10.53.45.000000 AM | 16-FEB-20 04.07.41.000000 PM |
| 5542291   | 16-FEB-20 10.45.55.000000 AM | 16-FEB-20 04.05.09.000000 PM |
| 5193139   | 16-FEB-20 10.57.30.000000 AM | 16-FEB-20 04.07.11.000000 PM |
| 2110003   | 16-FEB-20 10.35.55.000000 AM | 16-FEB-20 04.39.35.000000 PM |
| 6382682   | 16-FEB-20 10.19.33.000000 AM | 16-FEB-20 04.37.00.000000 PM |

“

***Thank You***

”