**TURTLEBACK ZOO**

**DELIVERABLE - 3**

**CS631 – 001**

**Team - 1**

Faraz Abdul Nasir (fl279)

Dejoe Varghese John (dj324)

Adesh Sai Arun Kumar (aa3577)

**Turtleback Zoo Phase 1 - Goals**

Goal of the project phase 3 is to develop a comprehensive and efficient system that enables the effective management and organization of various aspects within a zoo environment .The features of this zoo management application include visitor admissions, financial tracking, animal and species management, enclosure and building management, employee management, and thorough reports for efficient zoo operations and decision-making.

**Implementation**

**Problems Faced**

· **Data Integrity Challenges:**

* Ensuring consistent data integrity across tables.
* Managing relationships and foreign key constraints.

· **Report Generation:**

* Designing efficient queries for generating management reports.
* Addressing challenges related to aggregations, filtering, and sorting.

· **Testing and Debugging:**

* Comprehensive testing of SQL queries under various scenarios.
* Debugging issues related to query performance, data discrepancies, or unexpected results.

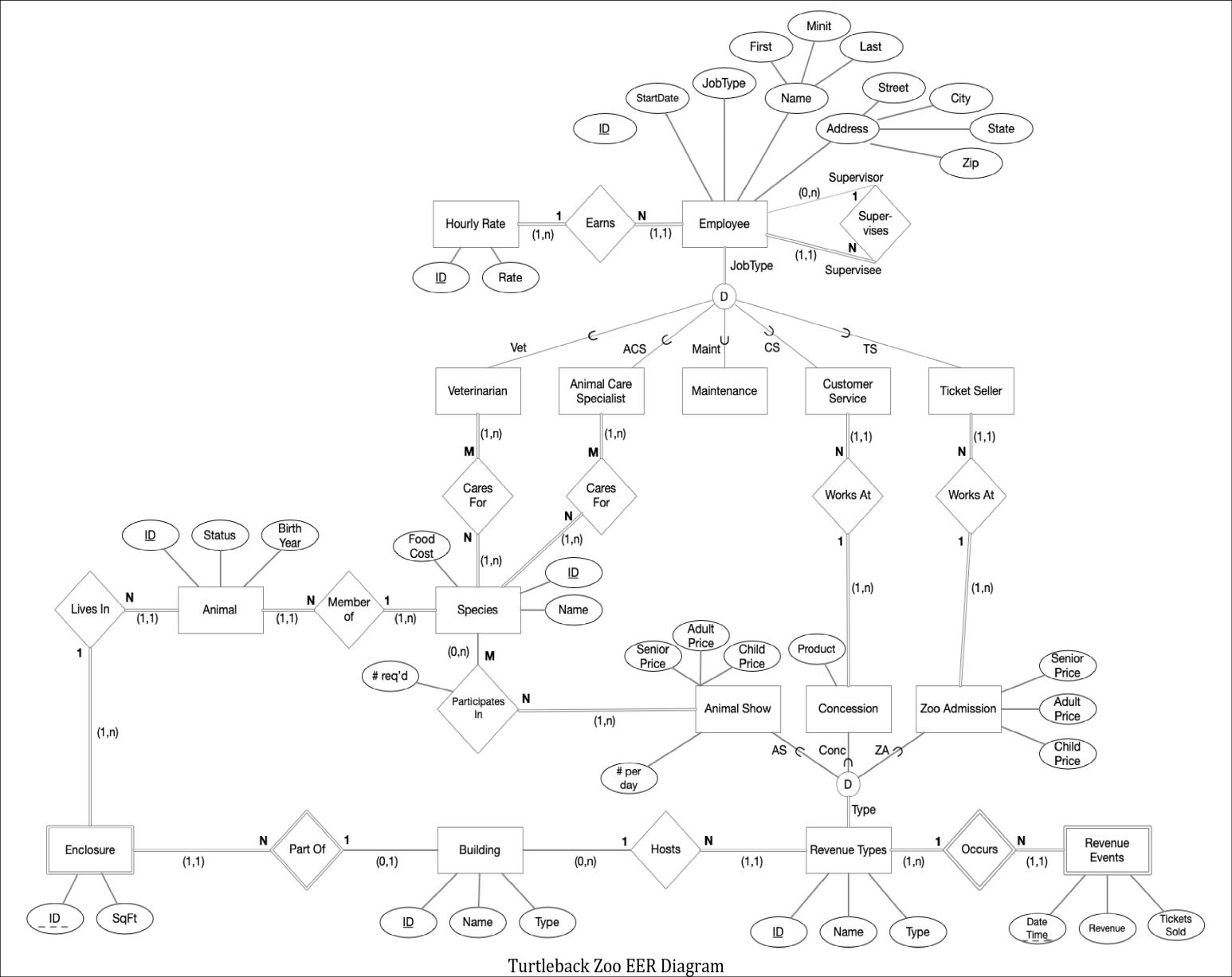
· **Handling Large Datasets:**

* Efficiently managing and querying large datasets, especially for reports.
* Implementing indexing and other strategies for improved query performanc

**· **Complex Queries and Joins:****

* Designing and optimizing complex SQL queries, especially for reporting purposes.
* Handling multiple joins for retrieving comprehensive information

**ER Diagram:**



**Relational Schema:**

**USER GUIDE**

**SQL Commands of Create Table**

CREATE TABLE EMPLOYEE

(id INT NOT NULL,

startDate DATE,

jobType VARCHAR(15),

first VARCHAR(15) NOT NULL,

minit CHAR,

last VARCHAR(15) NOT NULL,

street VARCHAR(20),

city VARCHAR(15),

state VARCHAR(15),

zip INT,

hourlyrateID INT,

supervisorID INT,

concessionRevenueID INT,

zooAdmissionRevenueID INT,

PRIMARY KEY (id),

CONSTRAINT sup\_id FOREIGN KEY (supervisorID) REFERENCES EMPLOYEE(id)

) ;

CREATE TABLE HourlyRate

(id INT NOT NULL,

rate DOUBLE PRECISION NOT NULL,

PRIMARY KEY (id)

) ;

ALTER TABLE EMPLOYEE

ADD CONSTRAINT emp\_HR\_ID FOREIGN KEY (hourlyrateID) REFERENCES HourlyRate(id)

ON DELETE CASCADE;

CREATE TABLE SPECIES

(id INT NOT NULL,

name VARCHAR(15) NOT NULL,

foodCost DOUBLE PRECISION NOT NULL,

PRIMARY KEY (id)

) ;

CREATE TABLE ENCLOSURE

(id INT NOT NULL,

buildingId INT,

sqft DOUBLE PRECISION NOT NULL,

PRIMARY KEY (id)

) ;

CREATE TABLE ANIMAL

(id INT NOT NULL,

buildingId INT,

speciesId INT,

status VARCHAR(15),

birthYear DATE,

enclosureId INT,

PRIMARY KEY (id),

CONSTRAINT sp\_id FOREIGN KEY (speciesId) REFERENCES SPECIES(id),

CONSTRAINT en\_id FOREIGN KEY (enclosureId) REFERENCES ENCLOSURE(id)

) ;

CREATE TABLE BUILDING

(id INT NOT NULL,

name VARCHAR(10),

type VARCHAR(10),

PRIMARY KEY (id)

) ;

ALTER TABLE ENCLOSURE

ADD CONSTRAINT enc\_bld\_ID FOREIGN KEY (buildingId) REFERENCES BUILDING(id)

ON DELETE CASCADE;

CREATE TABLE Revenue\_Types

(revenueTypeId INT NOT NULL,

name VARCHAR(15),

type VARCHAR(15),

buildingId INT,

PRIMARY KEY (revenueTypeId),

CONSTRAINT bldn\_ID FOREIGN KEY (buildingId) REFERENCES BUILDING(id)

) ;

CREATE TABLE Revenue\_Events

(dateTime DATE NOT NULL,

revenueId INT NOT NULL,

ticketsSold DOUBLE PRECISION,

revenue DOUBLE PRECISION,

PRIMARY KEY (dateTime, revenueId),

CONSTRAINT rvn\_ID FOREIGN KEY (revenueId) REFERENCES Revenue\_Types(revenueTypeId)

) ;

CREATE TABLE Animal\_Show

(revenueId INT NOT NULL,

seniorPrice DOUBLE PRECISION,

adultPrice DOUBLE PRECISION,

childPrice DOUBLE PRECISION,

numberPerDay DOUBLE PRECISION,

PRIMARY KEY (revenueID),

CONSTRAINT as\_rvn\_ID FOREIGN KEY (revenueId) REFERENCES Revenue\_Types(revenueTypeId)

) ;

CREATE TABLE CONCESSION

(revenueId INT NOT NULL,

product VARCHAR(10),

PRIMARY KEY (revenueId),

CONSTRAINT Crvn\_ID FOREIGN KEY (revenueId ) REFERENCES Revenue\_Types(revenueTypeId)

) ;

ALTER TABLE EMPLOYEE

ADD CONSTRAINT cncs\_ID FOREIGN KEY (concessionRevenueID) REFERENCES CONCESSION(revenueID)

ON DELETE CASCADE;

CREATE TABLE Zoo\_Admission

(revenueId INT NOT NULL,

seniorPrice DOUBLE PRECISION,

adultPrice DOUBLE PRECISION,

childPrice DOUBLE PRECISION,

PRIMARY KEY (revenueId),

CONSTRAINT Za\_rvn\_ID FOREIGN KEY (revenueId) REFERENCES Revenue\_Types(revenueTypeId)

) ;

ALTER TABLE EMPLOYEE

ADD CONSTRAINT zar\_ID FOREIGN KEY (zooAdmissionRevenueID) REFERENCES Zoo\_Admission(revenueID)

ON DELETE CASCADE;

CREATE TABLE Participates\_In

(speciesId INT NOT NULL,

animalShowRevenueId INT NOT NULL,

numberRequired INT,

PRIMARY KEY (speciesId, animalShowRevenueId),

CONSTRAINT sps\_ID FOREIGN KEY (speciesId) REFERENCES SPECIES(id),

CONSTRAINT ASrev\_ID FOREIGN KEY (animalShowRevenueId) REFERENCES Animal\_Show(revenueId)

) ;

CREATE TABLE Cares\_For

(speciesId INT NOT NULL,

employeeId INT NOT NULL,

PRIMARY KEY (speciesId, employeeId ),

CONSTRAINT spcs\_id FOREIGN KEY (speciesId) REFERENCES SPECIES(id),

CONSTRAINT emp\_id FOREIGN KEY (employeeId) REFERENCES EMPLOYEE(id)

) ;

**SQL Commands that Populates Table**

-- Insert data into EMPLOYEE table

INSERT INTO EMPLOYEE (VALUES(1, TO\_DATE('2010-01-15', 'YYYY-MM-DD'), 'Manager', 'John', 'D', 'Doe', '123 Main St', 'Cityville', 'CA', 12345, 1, NULL, 2, 3);

INSERT INTO EMPLOYEE VALUES(2, TO\_DATE('2015-03-20', 'YYYY-MM-DD'), 'Zookeeper', 'Jane', 'M', 'Smith', '456 Oak Ave', 'Townburg', 'NY', 56789, 2, 1, 1, NULL);

INSERT INTO EMPLOYEE VALUES (3, TO\_DATE('2018-07-10', 'YYYY-MM-DD'), 'Caretaker', 'Robert', 'L', 'Johnson', '789 Pine Blvd', 'Villagetown', 'TX', 98765, 3, 1, NULL, 4);

INSERT INTO EMPLOYEE VALUES(4, TO\_DATE('2012-05-28', 'YYYY-MM-DD'), 'Security', 'Emily', 'R', 'Williams', '101 Cedar Ln', 'Hamletville', 'FL', 54321, 4, NULL, 6, 5);

INSERT INTO EMPLOYEE VALUES(5, TO\_DATE('2017-11-12', 'YYYY-MM-DD'), 'Cashier', 'Michael', 'J', 'Brown', '222 Elm St', 'Citytown', 'AZ', 67890, 5, 1, 7, 6);

INSERT INTO EMPLOYEE VALUES(6, TO\_DATE('2013-08-22', 'YYYY-MM-DD'), 'Janitor', 'Sarah', 'A', 'Jones', '333 Birch Ave', 'Ruraltown', 'GA', 13579, 6, 1, 8, 7);

INSERT INTO EMPLOYEE VALUES(7, TO\_DATE('2016-09-05', 'YYYY-MM-DD'), 'Educator', 'Daniel', 'P', 'Miller', '444 Maple Dr', 'Suburbville', 'WA', 24680, 7, 1, 4, NULL);

INSERT INTO EMPLOYEE (VALUES(8, TO\_DATE('2014-04-14', 'YYYY-MM-DD'), 'Ticket Seller', 'Olivia', 'S', 'Davis', '555 Pine Ln', 'Countryside', 'OH', 97531, 8, 1 , 4 , 8);

INSERT INTO EMPLOYEE VALUES(9, TO\_DATE('2019-01-18', 'YYYY-MM-DD'), 'Guide', 'James', 'K', 'Taylor', '666 Oak Dr', 'Villageville', 'NC', 35791, 9, 1, 2, 9);

INSERT INTO EMPLOYEE (VALUES(10, TO\_DATE('2011-12-01', 'YYYY-MM-DD'), 'Gift Shop Clerk', 'Emma', 'F', 'Wilson', '777 Cedar Blvd', 'Cityland', 'MI', 80234, 10, 1, 1, 10);

-- Insert data into HourlyRate table

INSERT INTO HourlyRate VALUES(1, 15.5);

INSERT INTO HourlyRate VALUES(2, 18.0);

INSERT INTO HourlyRate VALUES(3, 20.25);

INSERT INTO HourlyRate VALUES(4, 22.0);

INSERT INTO HourlyRate VALUES(5, 25.5);

INSERT INTO HourlyRate VALUES(6, 19.75);

INSERT INTO HourlyRate VALUES(7, 21.0);

INSERT INTO HourlyRate VALUES(8, 23.5);

INSERT INTO HourlyRate VALUES(9, 26.0);

INSERT INTO HourlyRate VALUES(10, 24.75);

-- Insert data into SPECIES table

INSERT INTO SPECIES VALUES(1, 'Lion', 150.0);

INSERT INTO SPECIES VALUES(2, 'Tiger', 120.0);

INSERT INTO SPECIES VALUES(3, 'Elephant', 200.0);

INSERT INTO SPECIES VALUES(4, 'Giraffe', 100.0);

INSERT INTO SPECIES VALUES(5, 'Penguin', 50.0);

INSERT INTO SPECIES VALUES(6, 'Kangaroo', 80.0);

INSERT INTO SPECIES VALUES(7, 'Zebra', 110.0);

INSERT INTO SPECIES VALUES(8, 'Panda', 180.0);

INSERT INTO SPECIES VALUES(9, 'Leopard', 130.0);

INSERT INTO SPECIES VALUES(10, 'Gorilla', 160.0);

-- Insert data into BUILDING table

INSERT INTO BUILDING VALUES(1, 'Building A', 'Exhibit');

INSERT INTO BUILDING VALUES(2, 'Building B', 'Enclosure');

INSERT INTO BUILDING VALUES(3, 'Building C', 'Theater');

INSERT INTO BUILDING VALUES(4, 'Building D', 'Cafeteria');

INSERT INTO BUILDING VALUES(5, 'Building E', 'Entrance');

INSERT INTO BUILDING VALUES(6, 'Building F', 'Gift Shop');

INSERT INTO BUILDING VALUES(7, 'Building G', 'Restrooms');

INSERT INTO BUILDING VALUES(8, 'Building H', 'Play Area');

INSERT INTO BUILDING VALUES(9, 'Building I', 'Admin');

INSERT INTO BUILDING VALUES(10, 'Building J', 'Park Lot');

-- Insert data into ENCLOSURE table

INSERT INTO ENCLOSURE VALUES(1, 2, 5000.0);

INSERT INTO ENCLOSURE VALUES(2, 2, 4500.0);

INSERT INTO ENCLOSURE VALUES(3, 2, 6000.0);

INSERT INTO ENCLOSURE VALUES(4, 2, 5500.0);

INSERT INTO ENCLOSURE VALUES(5, 2, 4800.0);

INSERT INTO ENCLOSURE VALUES(6, 2, 5200.0);

INSERT INTO ENCLOSURE VALUES(7, 2, 4700.0);

INSERT INTO ENCLOSURE VALUES(8, 2, 5100.0);

INSERT INTO ENCLOSURE VALUES(9, 2, 5800.0);

INSERT INTO ENCLOSURE VALUES(10, 2, 5300.0);

-- Insert data into ANIMAL table

INSERT INTO ANIMAL VALUES(1, 2, 1, 'Healthy', TO\_DATE('2015-05-20', 'YYYY-MM-DD'), 1);

INSERT INTO ANIMAL VALUES(2, 2, 2, 'Sick', TO\_DATE('2018-10-15', 'YYYY-MM-DD'), 2);

INSERT INTO ANIMAL VALUES(3, 2, 3, 'Healthy', TO\_DATE('2016-07-03', 'YYYY-MM-DD'), 3);

INSERT INTO ANIMAL VALUES(4, 2, 4, 'Healthy', TO\_DATE('2019-02-28', 'YYYY-MM-DD'), 4);

INSERT INTO ANIMAL VALUES(5, 2, 5, 'Sick', TO\_DATE('2017-12-10', 'YYYY-MM-DD'), 5);

INSERT INTO ANIMAL VALUES(6, 2, 6, 'Healthy', TO\_DATE('2014-08-22', 'YYYY-MM-DD'), 6);

INSERT INTO ANIMAL VALUES(7, 2, 7, 'Healthy', TO\_DATE('2015-11-05', 'YYYY-MM-DD'), 7);

INSERT INTO ANIMAL VALUES(8, 2, 8, 'Sick', TO\_DATE('2018-04-14', 'YYYY-MM-DD'), 8);

INSERT INTO ANIMAL VALUES(9, 2, 9, 'Healthy', TO\_DATE('2016-09-18', 'YYYY-MM-DD'), 9);

INSERT INTO ANIMAL VALUES(10, 2, 10, 'Healthy', TO\_DATE('2013-12-01', 'YYYY-MM-DD'), 10);

INSERT INTO ANIMAL VALUES(11, 2, 3, 'Healthy', TO\_DATE('2019-06-12', 'YYYY-MM-DD'), 3);

INSERT INTO ANIMAL VALUES(12, 2, 7, 'Sick', TO\_DATE('2018-04-05', 'YYYY-MM-DD'), 7);

INSERT INTO ANIMAL VALUES(13, 2, 2, 'Healthy', TO\_DATE('2017-11-28', 'YYYY-MM-DD'), 2);

INSERT INTO ANIMAL VALUES(14, 2, 8, 'Healthy', TO\_DATE('2015-10-20', 'YYYY-MM-DD'), 8);

INSERT INTO ANIMAL VALUES(15, 2, 1, 'Sick', TO\_DATE('2016-09-03', 'YYYY-MM-DD'), 1);

INSERT INTO ANIMAL VALUES(16, 2, 5, 'Healthy', TO\_DATE('2014-07-15', 'YYYY-MM-DD'), 5);

INSERT INTO ANIMAL VALUES(17, 2, 4, 'Healthy', TO\_DATE('2018-02-10', 'YYYY-MM-DD'), 4);

INSERT INTO ANIMAL VALUES(18, 2, 6, 'Sick', TO\_DATE('2017-05-22', 'YYYY-MM-DD'), 6);

INSERT INTO ANIMAL VALUES(19, 2, 9, 'Healthy', TO\_DATE('2016-08-18', 'YYYY-MM-DD'), 9);

INSERT INTO ANIMAL VALUES(20, 2, 10, 'Healthy', TO\_DATE('2013-11-25', 'YYYY-MM-DD'), 10);

INSERT INTO ANIMAL VALUES(21, 2, 6, 'Sick', TO\_DATE('2017-05-22', 'YYYY-MM-DD'), 9);

INSERT INTO ANIMAL VALUES(22, 2, 9, 'Healthy', TO\_DATE('2016-08-18', 'YYYY-MM-DD'), 9);

INSERT INTO ANIMAL VALUES(23, 2, 10, 'Healthy', TO\_DATE('2013-11-25', 'YYYY-MM-DD'), 1);

INSERT INTO ANIMAL VALUES(24, 2, 8, 'Healthy', TO\_DATE('2015-10-20', 'YYYY-MM-DD'), 1);

INSERT INTO ANIMAL VALUES(25, 2, 1, 'Sick', TO\_DATE('2016-09-03', 'YYYY-MM-DD'), 1);

INSERT INTO ANIMAL VALUES(26, 2, 5, 'Healthy', TO\_DATE('2014-07-15', 'YYYY-MM-DD'), 5);

INSERT INTO ANIMAL VALUES(27, 2, 4, 'Healthy', TO\_DATE('2018-02-10', 'YYYY-MM-DD'), 4);

-- Insert data into Revenue\_Types table

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(1, 'Ticket Sales', 'Admission', 5);

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(2, 'Concess Sales', 'Concession', 4);

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(3, 'Show sales', 'Show', 3);

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(4, 'Gift Shop', 'Retail', 6);

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(5, 'Parking Fees', 'Miscellaneous', 10);

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(6, 'Memberships', 'Membership', 5);

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(7, 'Donations', 'Miscellaneous', 9);

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(8, 'Rentals', 'Miscellaneous', 1);

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(9, 'Education show', 'Program', 3);

INSERT INTO Revenue\_Types (revenueTypeId, name, type, buildingId) VALUES(10, 'Special Events', 'Event', 2);

-- Insert data into Revenue\_Events table

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-01-15', 'YYYY-MM-DD'), 1, 200.0, 1500.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-02-20', 'YYYY-MM-DD'), 2, 50.0, 300.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-03-10', 'YYYY-MM-DD'), 3, 100.0, 1000.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-04-05', 'YYYY-MM-DD'), 4, NULL, 800.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-05-12', 'YYYY-MM-DD'), 5, NULL, 200.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-06-28', 'YYYY-MM-DD'), 6, 120.0, 900.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-07-15', 'YYYY-MM-DD'), 7, NULL, 400.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-08-22', 'YYYY-MM-DD'), 8, 30.0, 600.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-09-10', 'YYYY-MM-DD'), 9, NULL, 1200.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-10-18', 'YYYY-MM-DD'), 10, 15.0, 250.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-01-14', 'YYYY-MM-DD'), 1, 200.0, 1500.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2023-02-21', 'YYYY-MM-DD'), 2, 50.0, 300.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2022-03-10', 'YYYY-MM-DD'), 3, 100.0, 1000.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2022-04-05', 'YYYY-MM-DD'), 4, NULL, 800.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2022-05-12', 'YYYY-MM-DD'), 5, NULL, 200.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2022-06-28', 'YYYY-MM-DD'), 6, 120.0, 900.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2022-07-15', 'YYYY-MM-DD'), 7, NULL, 400.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2022-08-22', 'YYYY-MM-DD'), 8, 30.0, 600.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2022-09-10', 'YYYY-MM-DD'), 9, NULL, 1200.0);

INSERT INTO Revenue\_Events VALUES(TO\_DATE('2022-10-18', 'YYYY-MM-DD'), 10, 15.0, 250.0);

INSERT INTO Revenue\_Events VALUES (TO\_DATE('2023-11-01', 'YYYY-MM-DD'), 3, 50.0, 500.0);

INSERT INTO Revenue\_Events VALUES (TO\_DATE('2023-12-15', 'YYYY-MM-DD'), 4, 80.0, 800.0);

INSERT INTO Revenue\_Events VALUES (TO\_DATE('2024-01-20', 'YYYY-MM-DD'), 5, 120.0, 1200.0);

INSERT INTO Revenue\_Events VALUES (TO\_DATE('2024-02-10', 'YYYY-MM-DD'), 6, 90.0, 900.0);

INSERT INTO Revenue\_Events VALUES (TO\_DATE('2024-03-05', 'YYYY-MM-DD'), 7, 150.0, 1500.0);

INSERT INTO Revenue\_Events VALUES (TO\_DATE('2024-04-18', 'YYYY-MM-DD'), 8, 100.0, 1000.0);

INSERT INTO Revenue\_Events VALUES (TO\_DATE('2024-05-22', 'YYYY-MM-DD'), 9, 70.0, 700.0);

INSERT INTO Revenue\_Events VALUES (TO\_DATE('2024-06-28', 'YYYY-MM-DD'), 10, 110.0, 1100.0);

INSERT INTO Revenue\_Events VALUES (TO\_DATE('2024-07-15', 'YYYY-MM-DD'), 1, 180.0, 1800.0);

-- Insert data into Animal\_Show table

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(1, 10.0, 15.0, 8.0, 2);

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(2, 12.0, 18.0, 10.0, 1);

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(3, 8.0, 12.0, 6.0, 3);

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(4, 11.0, 16.0, 9.0, 2);

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(5, 13.0, 20.0, 11.0, 1);

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(6, 9.0, 14.0, 7.0, 2);

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(7, 15.0, 22.0, 12.0, 1);

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(8, 14.0, 21.0, 10.0, 3);

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(9, 10.0, 15.0, 8.0, 2);

INSERT INTO Animal\_Show (revenueId, seniorPrice, adultPrice, childPrice, numberPerDay) VALUES(10, 12.0, 18.0, 10.0, 1);

-- Insert data into CONCESSION table

INSERT INTO CONCESSION VALUES(2, 'Popcorn');

INSERT INTO CONCESSION VALUES(1, 'Soda');

INSERT INTO CONCESSION VALUES(3, 'Candy');

INSERT INTO CONCESSION VALUES(4, 'Hot Dog');

INSERT INTO CONCESSION VALUES(5, 'Nachos');

INSERT INTO CONCESSION VALUES(6, 'Pretzel');

INSERT INTO CONCESSION VALUES(7, 'Ice Cream');

INSERT INTO CONCESSION VALUES(8, 'Chips');

INSERT INTO CONCESSION VALUES(9, 'Burger');

INSERT INTO CONCESSION ( VALUES(10, 'Fries');

-- Insert data into Zoo\_Admission table

INSERT INTO Zoo\_Admission VALUES(1, 10.0, 20.0, 10.0);

INSERT INTO Zoo\_Admission VALUES(2, 12.0, 25.0, 15.0);

INSERT INTO Zoo\_Admission VALUES(3, 15.0, 30.0, 18.0);

INSERT INTO Zoo\_Admission VALUES(4, 10.0, 18.0, 8.0);

INSERT INTO Zoo\_Admission VALUES(5, 13.0, 22.0, 12.0);

INSERT INTO Zoo\_Admission VALUES(6, 14.0, 28.0, 14.0);

INSERT INTO Zoo\_Admission VALUES(7, 12.0, 24.0, 10.0);

INSERT INTO Zoo\_Admission VALUES(8, 11.0, 23.0, 11.0);

INSERT INTO Zoo\_Admission VALUES(9, 14.0, 26.0, 16.0);

INSERT INTO Zoo\_Admission VALUES(10, 15.0, 32.0, 20.0);

-- Insert data into Participates\_In table

INSERT INTO Participates\_In VALUES(1, 3, 2);

INSERT INTO Participates\_In VALUES(2, 3, 1);

INSERT INTO Participates\_In VALUES(3, 3, 3);

INSERT INTO Participates\_In VALUES(4, 3, 2);

INSERT INTO Participates\_In VALUES(5, 3, 1);

INSERT INTO Participates\_In VALUES(6, 6, 1);

INSERT INTO Participates\_In VALUES(7, 6, 2);

INSERT INTO Participates\_In VALUES(8, 6, 1);

INSERT INTO Participates\_In VALUES(9, 6, 3);

INSERT INTO Participates\_In VALUES(10, 6, 2);

-- Insert data into Cares\_For table

INSERT INTO Cares\_For VALUES(1, 1);

INSERT INTO Cares\_For VALUES(2, 2);

INSERT INTO Cares\_For VALUES(3, 3);

INSERT INTO Cares\_For VALUES(4, 4);

INSERT INTO Cares\_For VALUES(5, 5);

INSERT INTO Cares\_For VALUES(6, 6);

INSERT INTO Cares\_For VALUES(7, 7);

INSERT INTO Cares\_For VALUES(8, 8);

INSERT INTO Cares\_For VALUES(9, 9);

INSERT INTO Cares\_For VALUES(10, 10);

**SOURCE CODE:**

**APPLICATION SCREENSHOTS**