**Observation 40-theatres**

Create theatre:

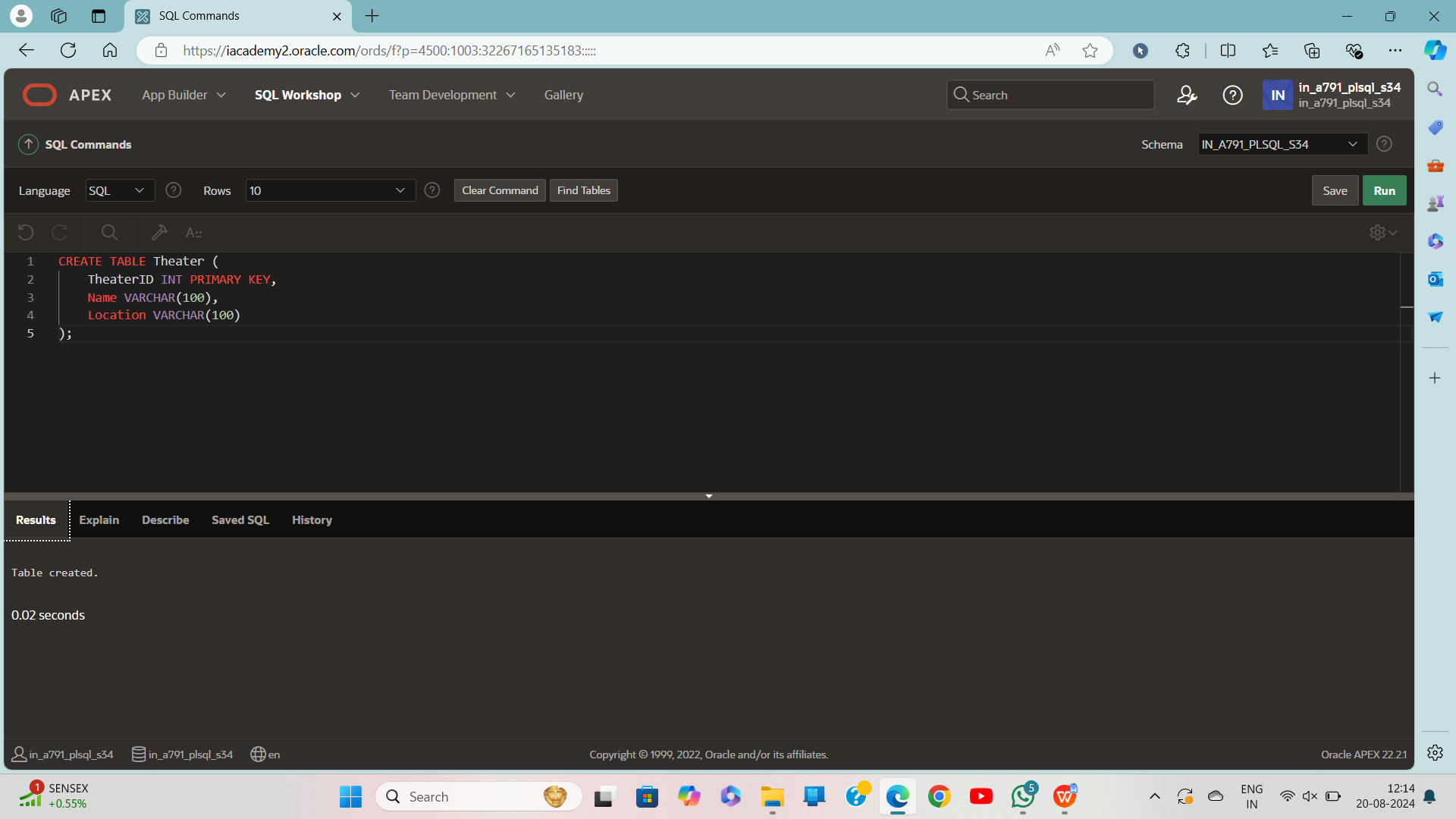
CREATE TABLE Theater (

TheaterID INT PRIMARY KEY,

Name VARCHAR(100),

Location VARCHAR(100)

);



Create shows:

CREATE TABLE Show (

ShowID INT PRIMARY KEY,

TheaterID INT,

ShowDate DATE,

StartTime TIMESTAMP,

EndTime TIMESTAMP,

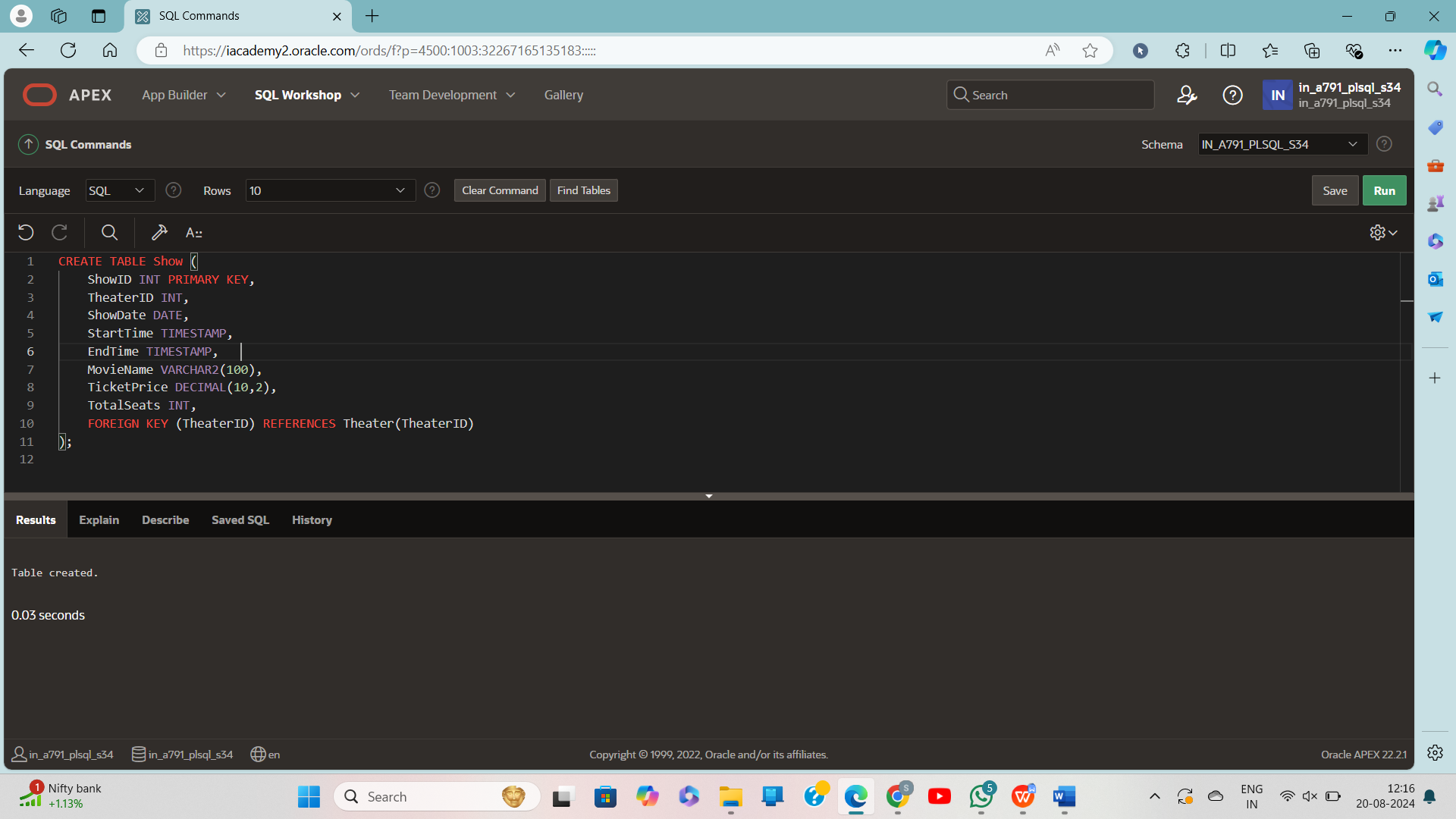
MovieName VARCHAR2(100),

TicketPrice DECIMAL(10,2),

TotalSeats INT,

FOREIGN KEY (TheaterID) REFERENCES Theater(TheaterID)

);



CREATE TABLE Ticket (

TicketID INT PRIMARY KEY,

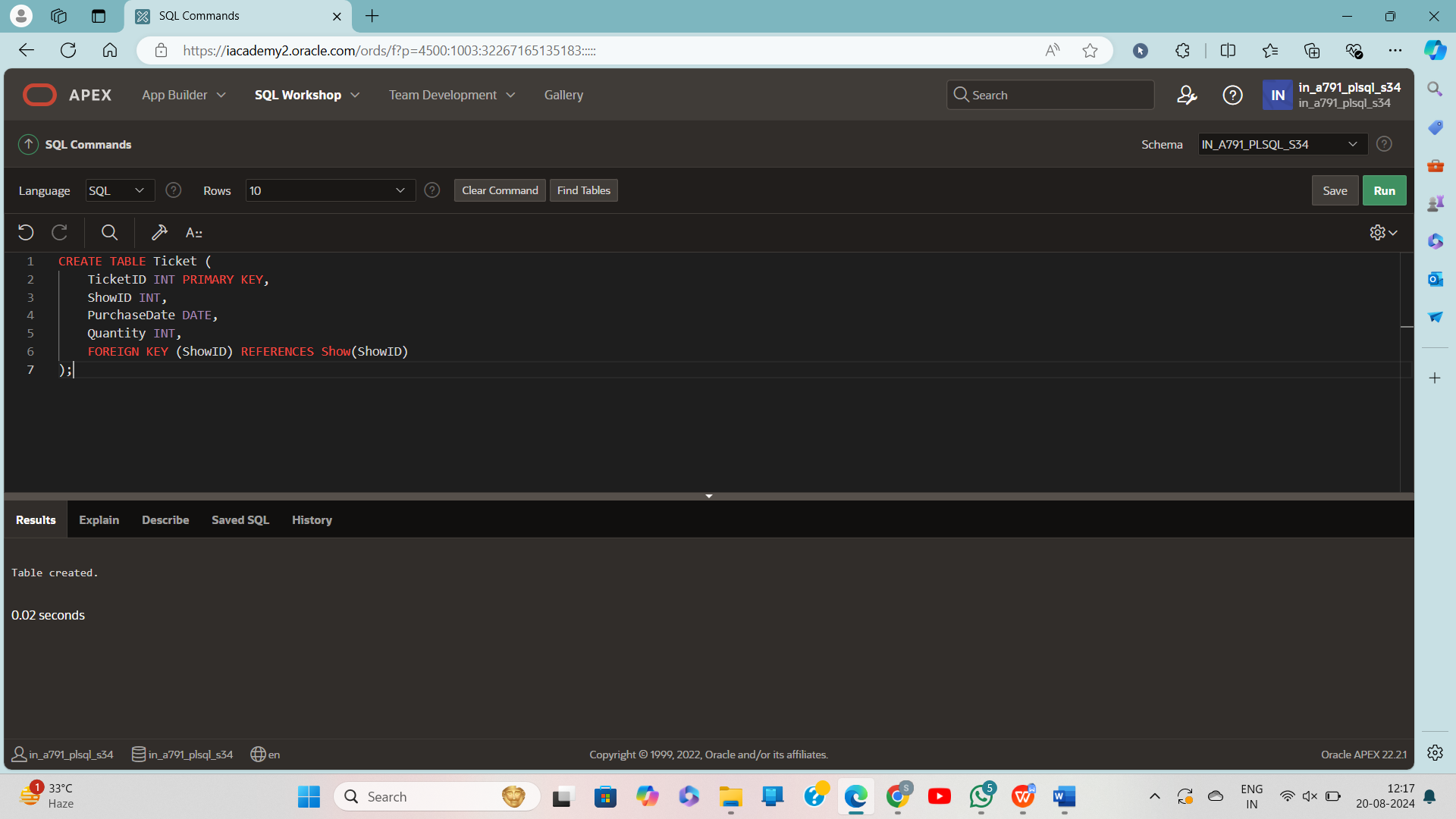
ShowID INT,

PurchaseDate DATE,

Quantity INT,

FOREIGN KEY (ShowID) REFERENCES Show(ShowID)

);



CREATE TABLE ProfitLoss (

ProfitLossID INT PRIMARY KEY,

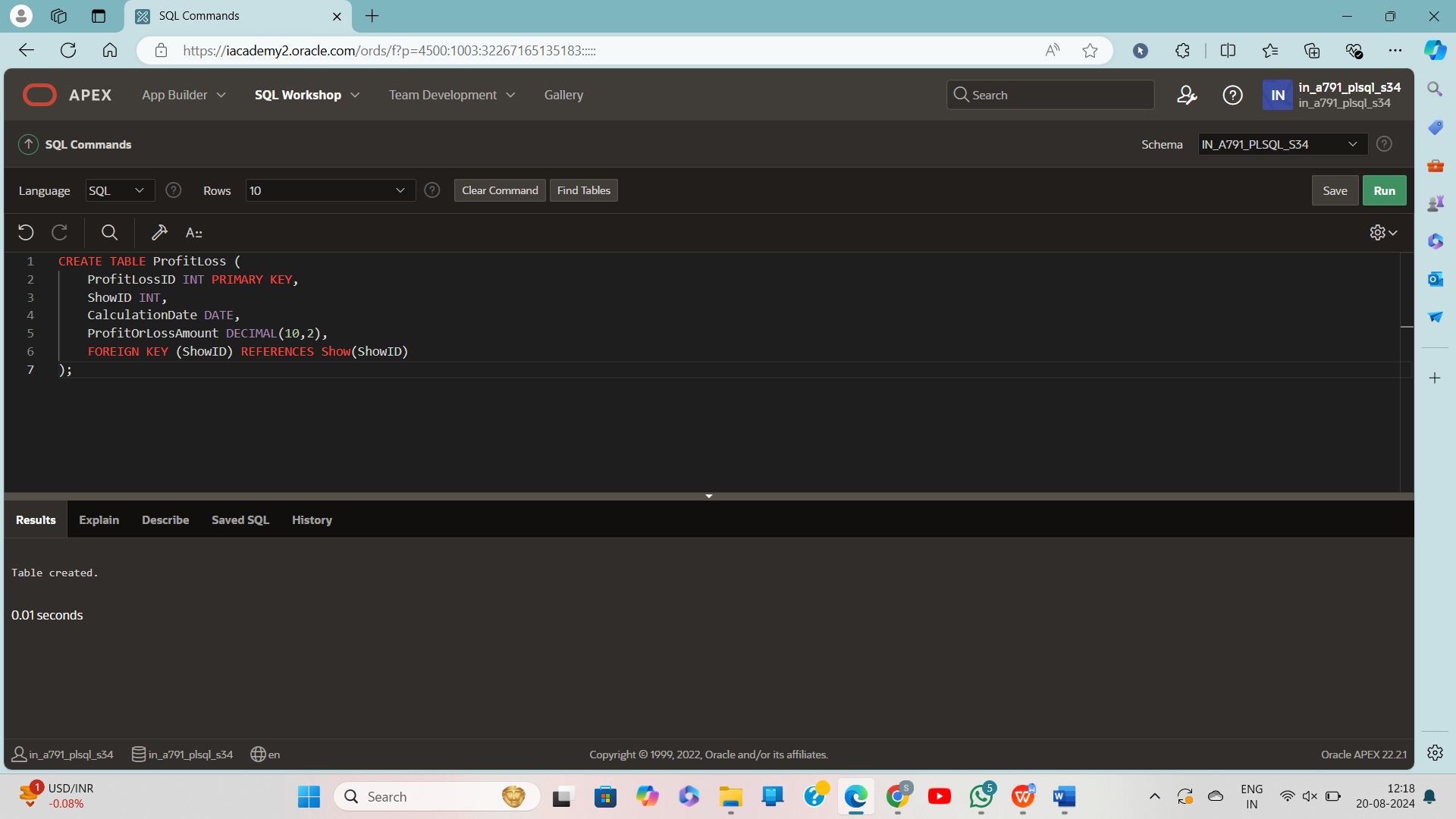
ShowID INT,

CalculationDate DATE,

ProfitOrLossAmount DECIMAL(10,2),

FOREIGN KEY (ShowID) REFERENCES Show(ShowID)

);



INSERT INTO Theater (TheaterID, Name, Location) VALUES (1, 'Grand Cinema', 'Downtown');

INSERT INTO Theater (TheaterID, Name, Location) VALUES (2, 'Mega Movies', 'Uptown');

INSERT INTO Theater (TheaterID, Name, Location) VALUES (3, 'City Lights', 'Suburbs');

INSERT INTO Show (ShowID, TheaterID, ShowDate, StartTime, EndTime, MovieName, TicketPrice, TotalSeats)

VALUES (1, 1, DATE '2024-08-20', TO\_TIMESTAMP('18:00:00', 'HH24:MI:SS'), TO\_TIMESTAMP('20:00:00', 'HH24:MI:SS'), 'Inception', 12.50, 200);

INSERT INTO Show (ShowID, TheaterID, ShowDate, StartTime, EndTime, MovieName, TicketPrice, TotalSeats)

VALUES (2, 2, DATE '2024-08-21', TO\_TIMESTAMP('19:00:00', 'HH24:MI:SS'), TO\_TIMESTAMP('21:30:00', 'HH24:MI:SS'), 'The Matrix', 15.00, 150);

INSERT INTO Show (ShowID, TheaterID, ShowDate, StartTime, EndTime, MovieName, TicketPrice, TotalSeats)

VALUES (3, 3, DATE '2024-08-22', TO\_TIMESTAMP('20:00:00', 'HH24:MI:SS'), TO\_TIMESTAMP('22:15:00', 'HH24:MI:SS'), 'Interstellar', 14.00, 180);

INSERT INTO Ticket (TicketID, ShowID, PurchaseDate, Quantity)

VALUES (1, 1, TO\_DATE('2024-08-19', 'YYYY-MM-DD'), 50);

INSERT INTO Ticket (TicketID, ShowID, PurchaseDate, Quantity)

VALUES (2, 1, TO\_DATE('2024-08-20', 'YYYY-MM-DD'), 100);

INSERT INTO Ticket (TicketID, ShowID, PurchaseDate, Quantity)

VALUES (3, 2, TO\_DATE('2024-08-20', 'YYYY-MM-DD'), 75);

INSERT INTO Ticket (TicketID, ShowID, PurchaseDate, Quantity)

VALUES (4, 3, TO\_DATE('2024-08-21', 'YYYY-MM-DD'), 120);

INSERT INTO ProfitLoss (ProfitLossID, ShowID, CalculationDate, ProfitOrLossAmount)

VALUES (1, 1, TO\_DATE('2024-08-20', 'YYYY-MM-DD'), 1000.00);

INSERT INTO ProfitLoss (ProfitLossID, ShowID, CalculationDate, ProfitOrLossAmount)

VALUES (2, 2, TO\_DATE('2024-08-21', 'YYYY-MM-DD'), 500.00);

**Create sequence:**

CREATE SEQUENCE ProfitLoss\_SEQ

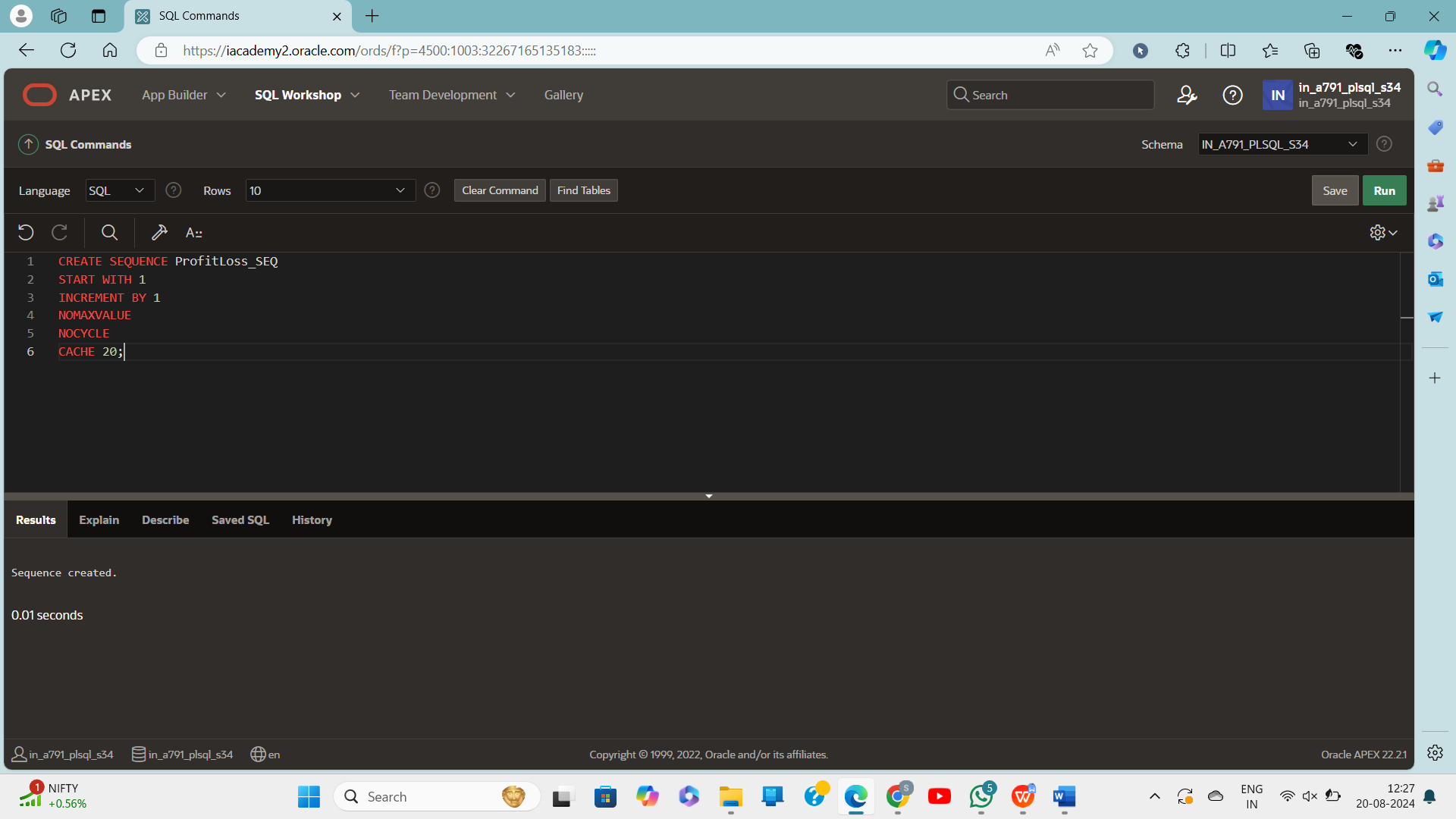
START WITH 1

INCREMENT BY 1

NOMAXVALUE

NOCYCLE

CACHE 20;



CREATE OR REPLACE PROCEDURE CalculateProfitLoss (p\_ShowID IN INT, p\_CalculationDate IN DATE) IS

v\_TotalTicketsSold INT := 0;

v\_TotalRevenue DECIMAL(10,2) := 0;

v\_TotalSeats INT;

v\_TicketPrice DECIMAL(10,2);

v\_ProfitOrLoss DECIMAL(10,2);

BEGIN

-- Get the total tickets sold for the show

SELECT COALESCE(SUM(Quantity), 0)

INTO v\_TotalTicketsSold

FROM Ticket

WHERE ShowID = p\_ShowID;

-- Get the ticket price and total seats from the Show table

SELECT TicketPrice, TotalSeats

INTO v\_TicketPrice, v\_TotalSeats

FROM Show

WHERE ShowID = p\_ShowID;

-- Calculate total revenue

v\_TotalRevenue := v\_TotalTicketsSold \* v\_TicketPrice;

-- Assuming profit is revenue - (total seats \* some cost per seat, let's assume a fixed cost of 50)

v\_ProfitOrLoss := v\_TotalRevenue - (v\_TotalSeats \* 50);

-- Output the results

DBMS\_OUTPUT.PUT\_LINE('Total Tickets Sold: ' || v\_TotalTicketsSold);

DBMS\_OUTPUT.PUT\_LINE('Ticket Price: ' || v\_TicketPrice);

DBMS\_OUTPUT.PUT\_LINE('Total Seats: ' || v\_TotalSeats);

DBMS\_OUTPUT.PUT\_LINE('Total Revenue: ' || v\_TotalRevenue);

DBMS\_OUTPUT.PUT\_LINE('Profit or Loss: ' || v\_ProfitOrLoss);

-- Insert the profit or loss into the ProfitLoss table

INSERT INTO ProfitLoss (ProfitLossID, ShowID, CalculationDate, ProfitOrLossAmount)

VALUES (ProfitLoss\_SEQ.NEXTVAL, p\_ShowID, p\_CalculationDate, v\_ProfitOrLoss);

COMMIT;

EXCEPTION

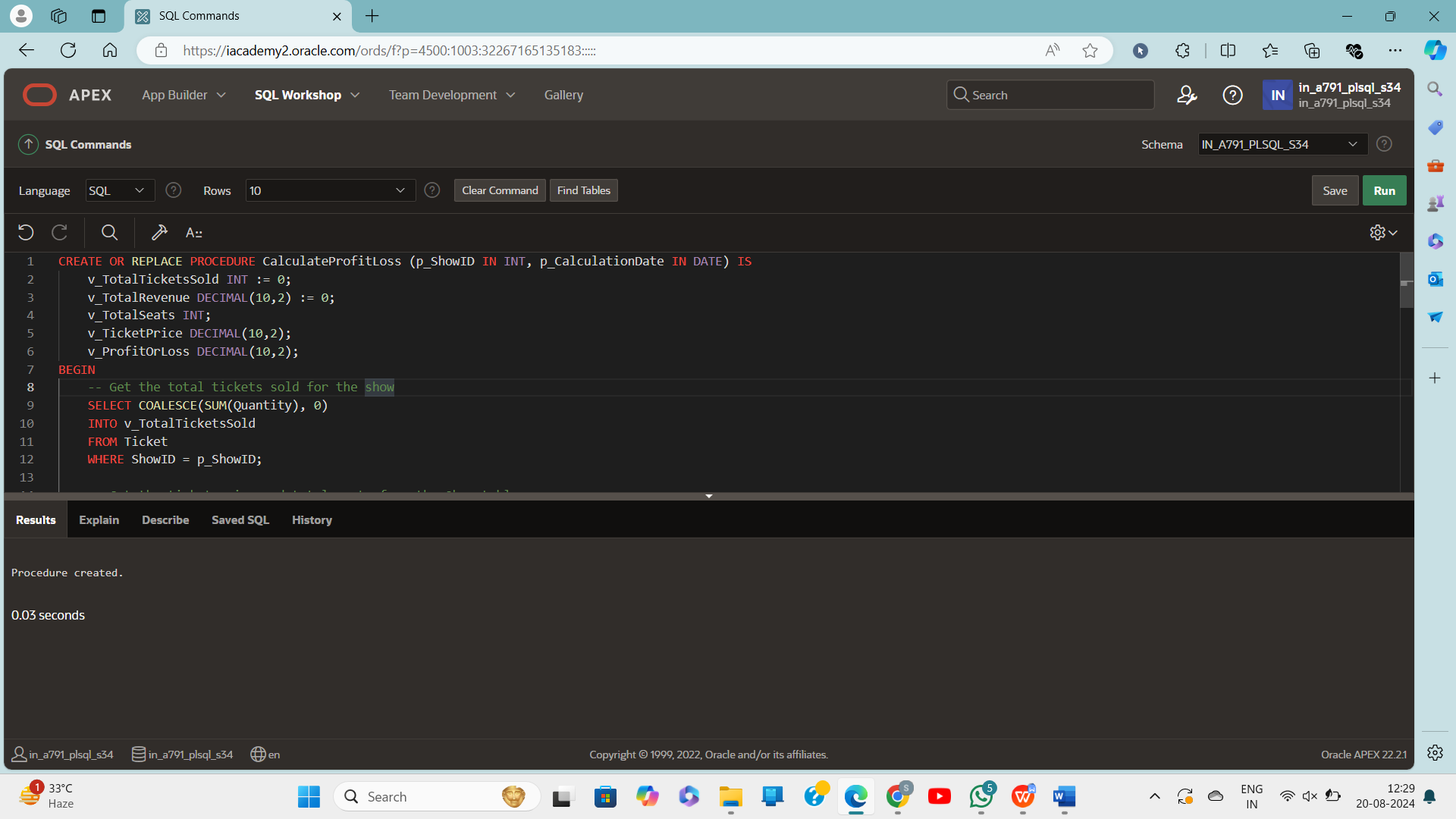
WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('No data found for the given ShowID.');

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('An error occurred: ' || SQLERRM);

END;



BEGIN

CalculateProfitLoss(1, TO\_DATE('2024-08-20', 'YYYY-MM-DD'));

END;

