28. create a function for library information system to count the no.of days left to return the books two tables personal information and book information

-- Create the person table

CREATE TABLE person (

person\_id NUMBER PRIMARY KEY,

name VARCHAR2(100),

email VARCHAR2(100)

);

/

-- Create the book table

CREATE TABLE book (

book\_id NUMBER PRIMARY KEY,

title VARCHAR2(200),

author VARCHAR2(100),

due\_date DATE,

person\_id NUMBER,

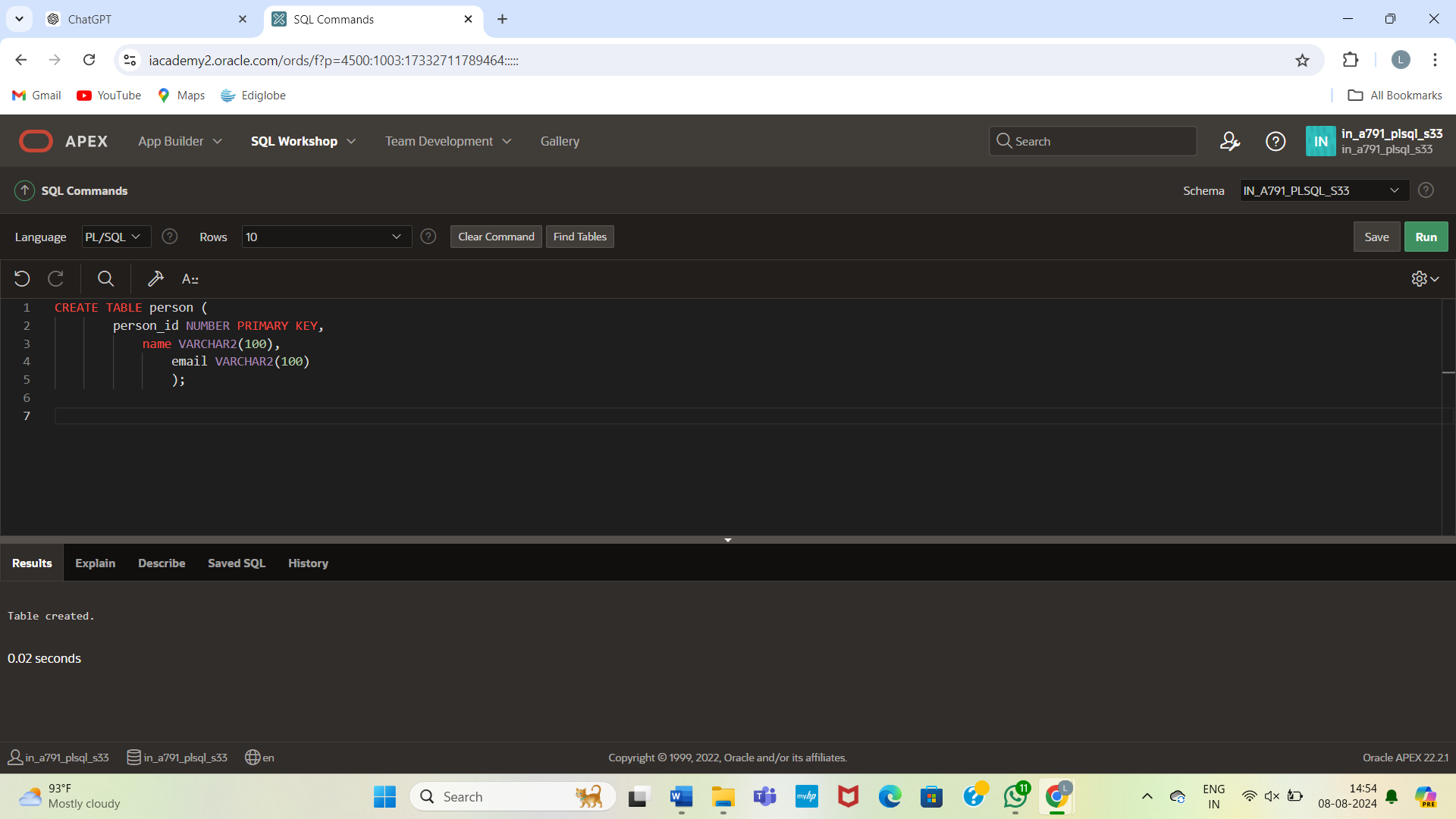
CONSTRAINT fk\_person

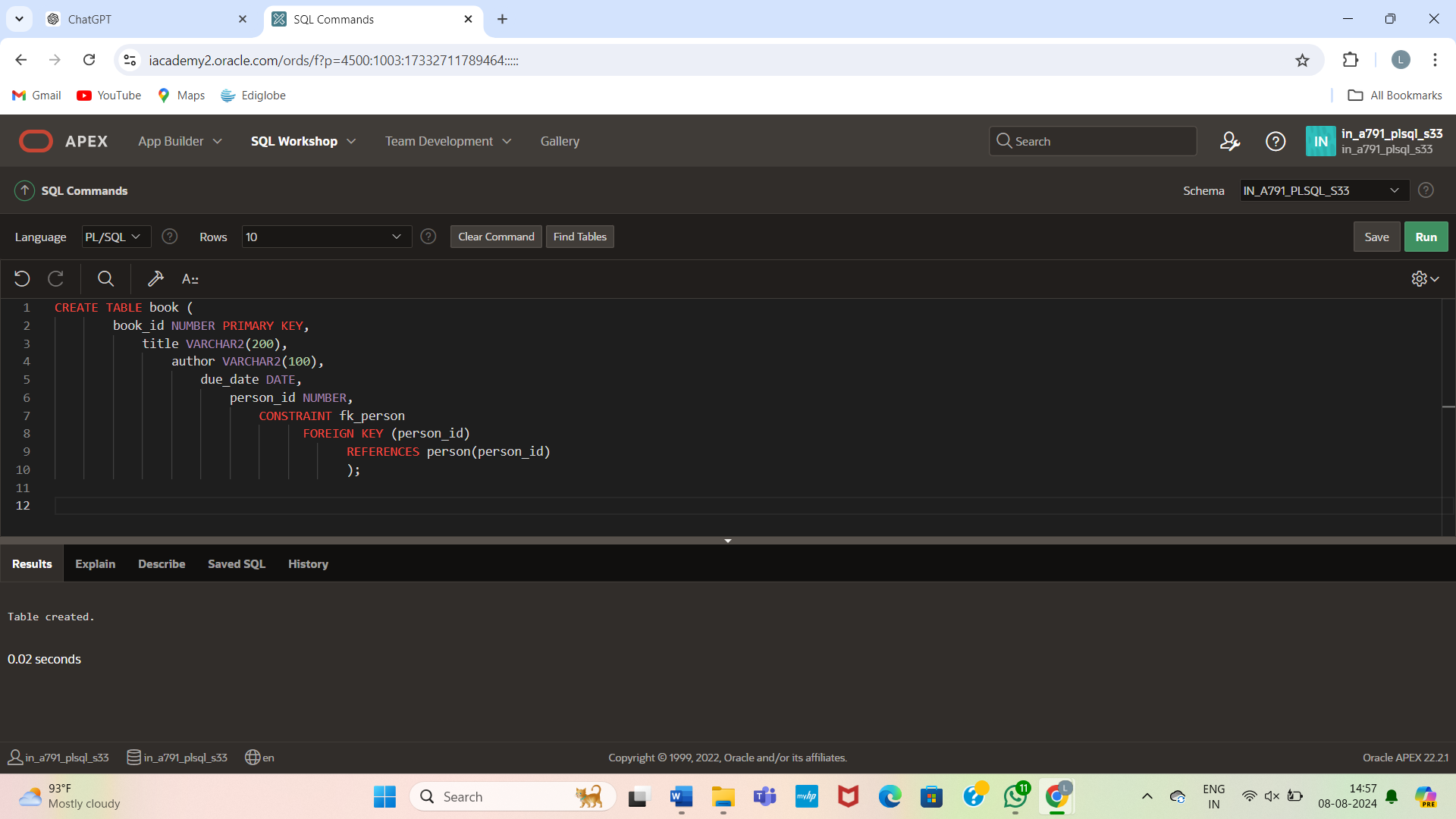
FOREIGN KEY (person\_id)

REFERENCES person(person\_id)

);

/





Insert sample data:

-- Insert sample data into person table

INSERT INTO person (person\_id, name, email) VALUES (1, 'John Doe', 'john.doe@example.com');

INSERT INTO person (person\_id, name, email) VALUES (2, 'Jane Smith', 'jane.smith@example.com');

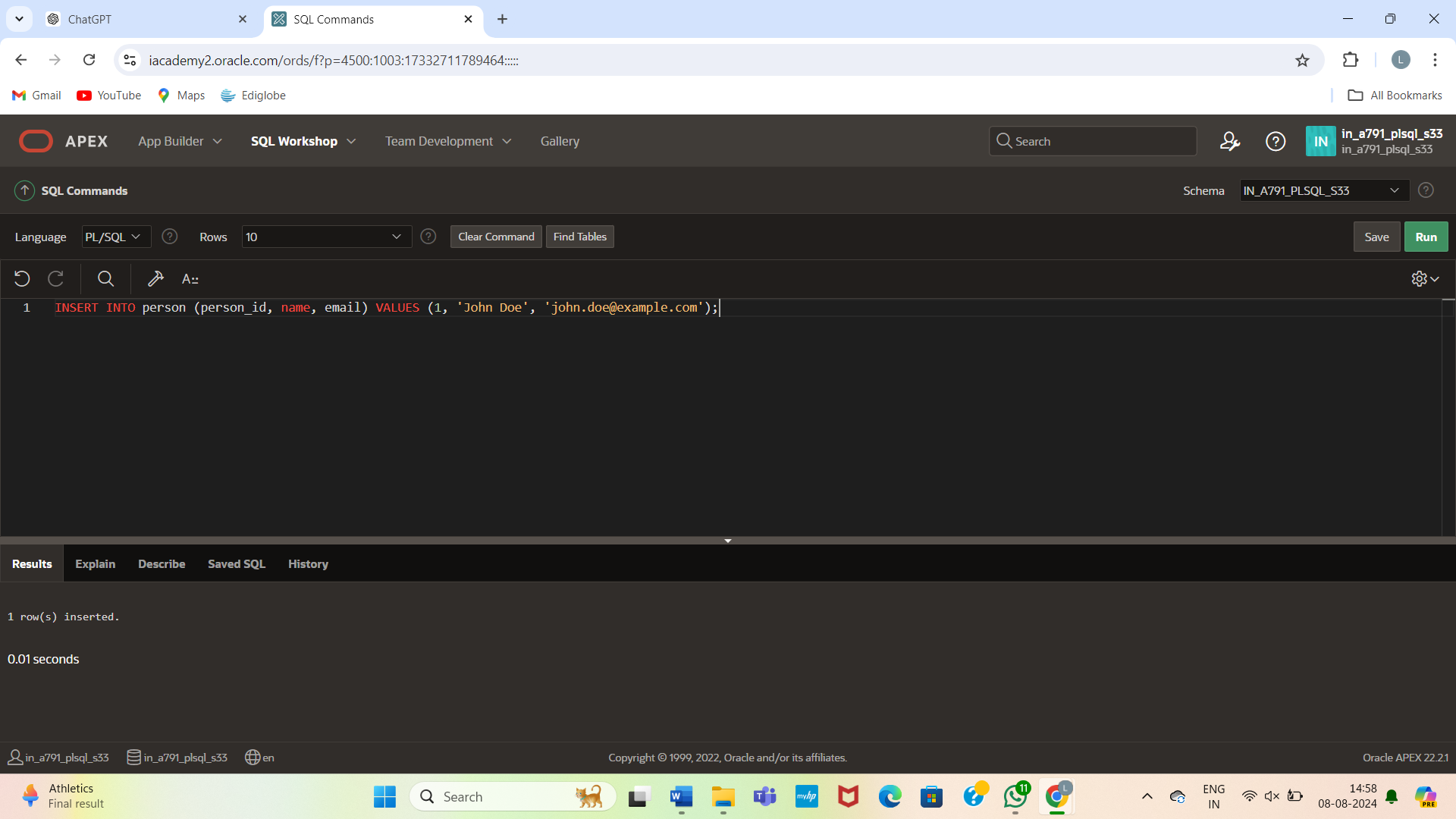
-- Insert sample data into book table

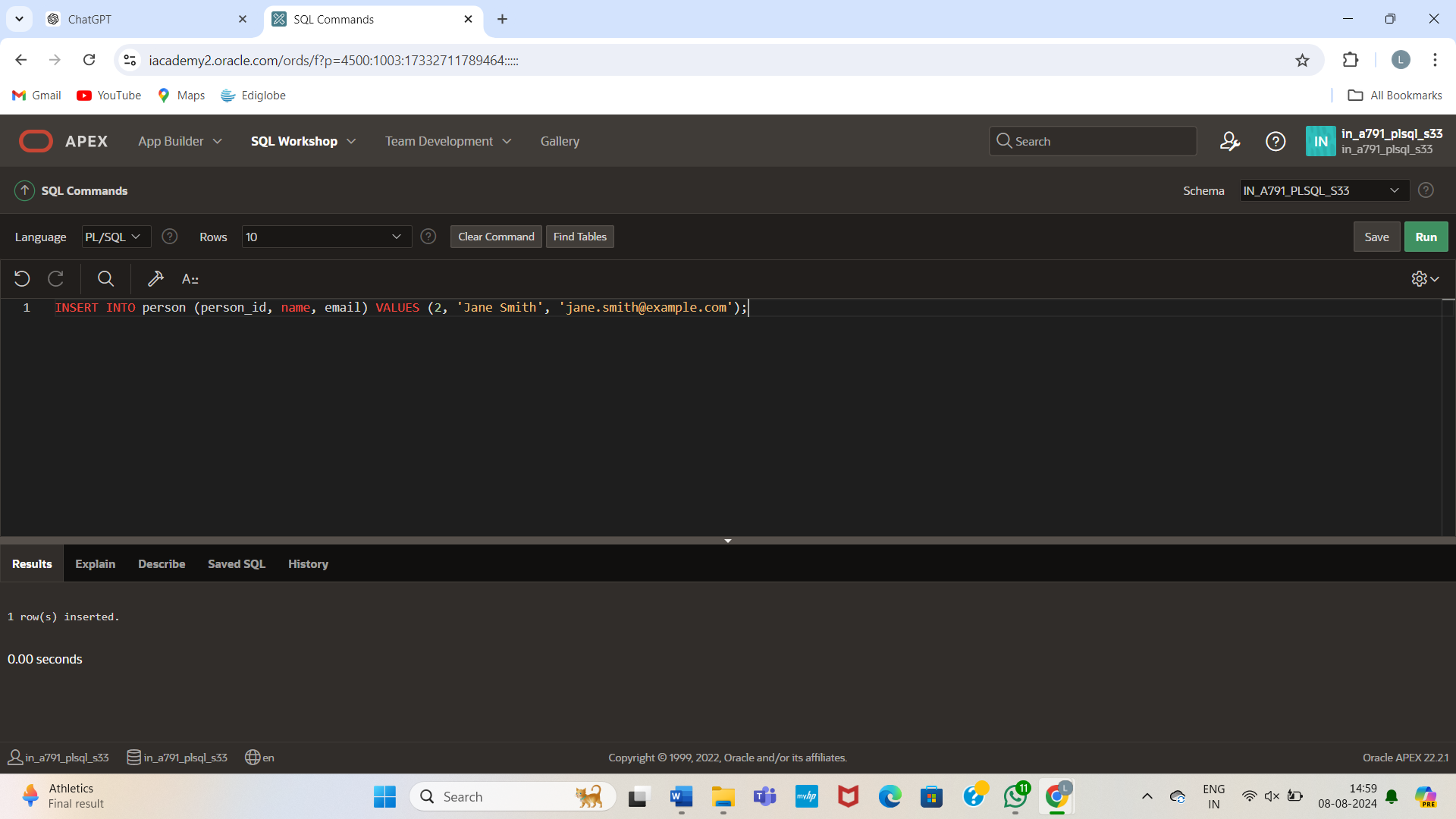
INSERT INTO book (book\_id, title, author, due\_date, person\_id)

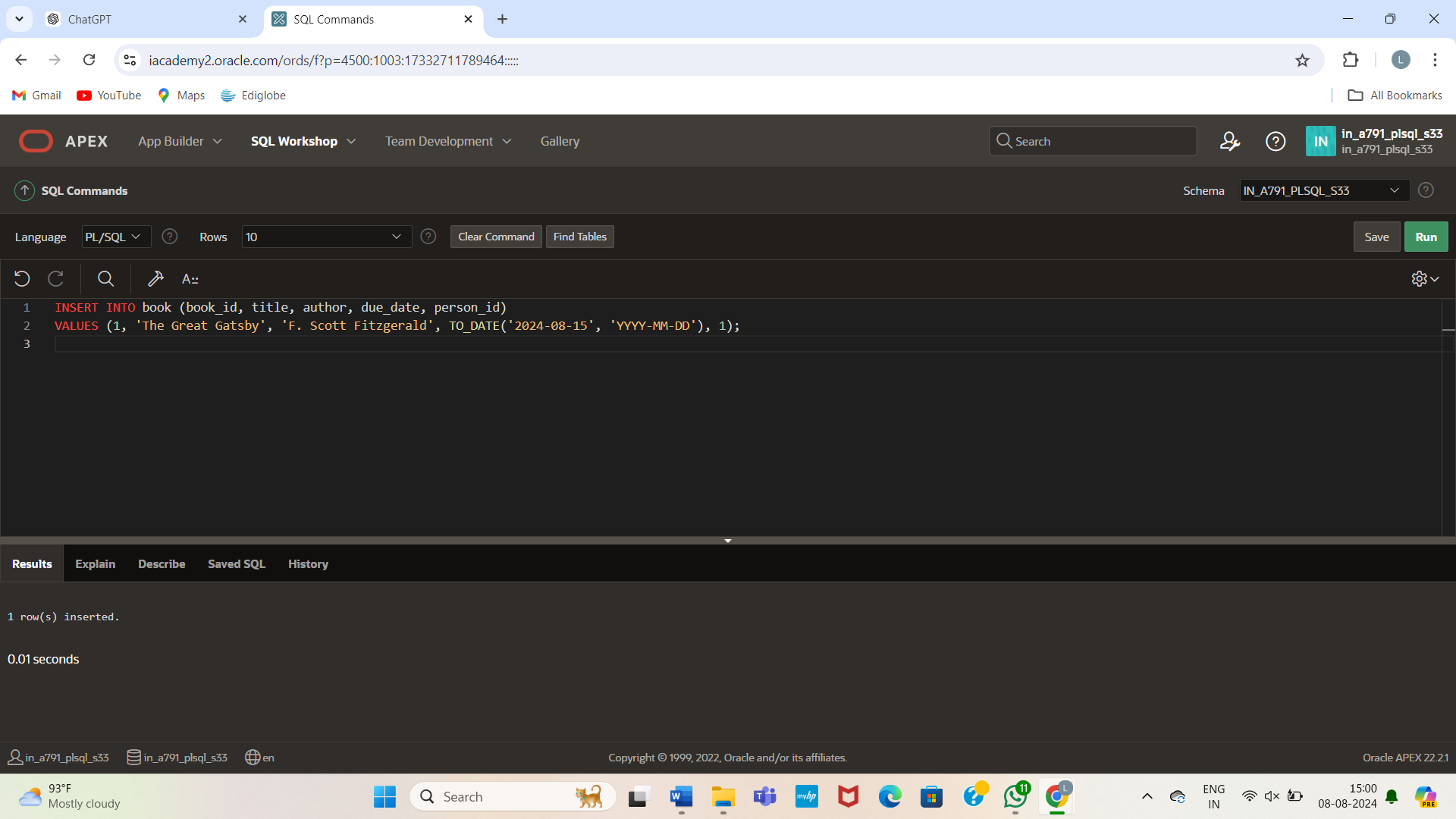
VALUES (1, 'The Great Gatsby', 'F. Scott Fitzgerald', TO\_DATE('2024-08-15', 'YYYY-MM-DD'), 1);

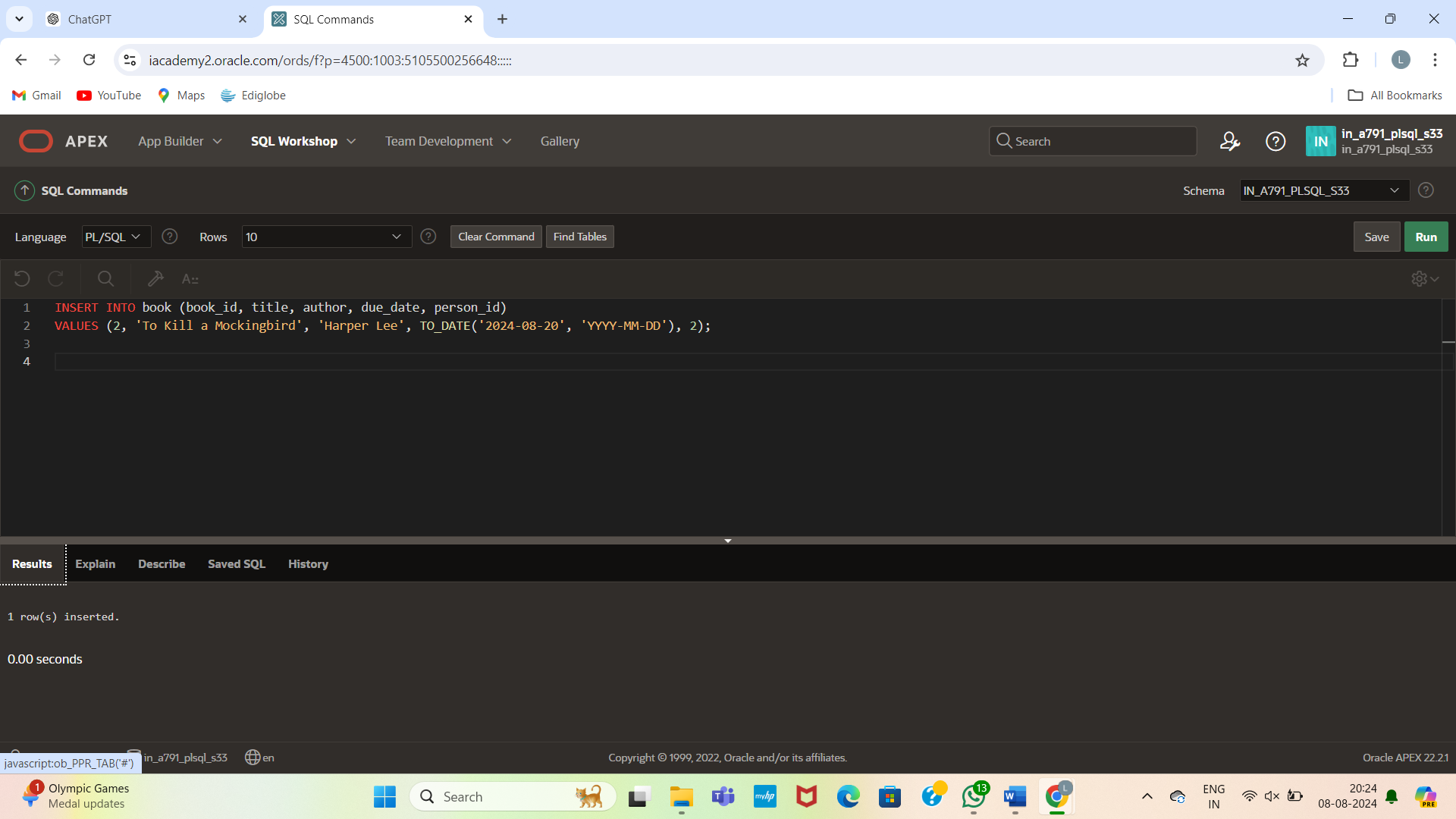
INSERT INTO book (book\_id, title, author, due\_date, person\_id)

VALUES (2, 'To Kill a Mockingbird', 'Harper Lee', TO\_DATE('2024-08-20', 'YYYY-MM-DD'), 2);









CREATE OR REPLACE FUNCTION days\_left\_to\_return(p\_person\_id NUMBER, p\_book\_id NUMBER)

RETURN NUMBER

IS

v\_due\_date DATE;

v\_days\_left NUMBER;

BEGIN

-- Get the due date of the book for the given person

SELECT due\_date INTO v\_due\_date

FROM book

WHERE person\_id = p\_person\_id

AND book\_id = p\_book\_id;

-- Calculate the number of days left

v\_days\_left := v\_due\_date - SYSDATE;

RETURN v\_days\_left;

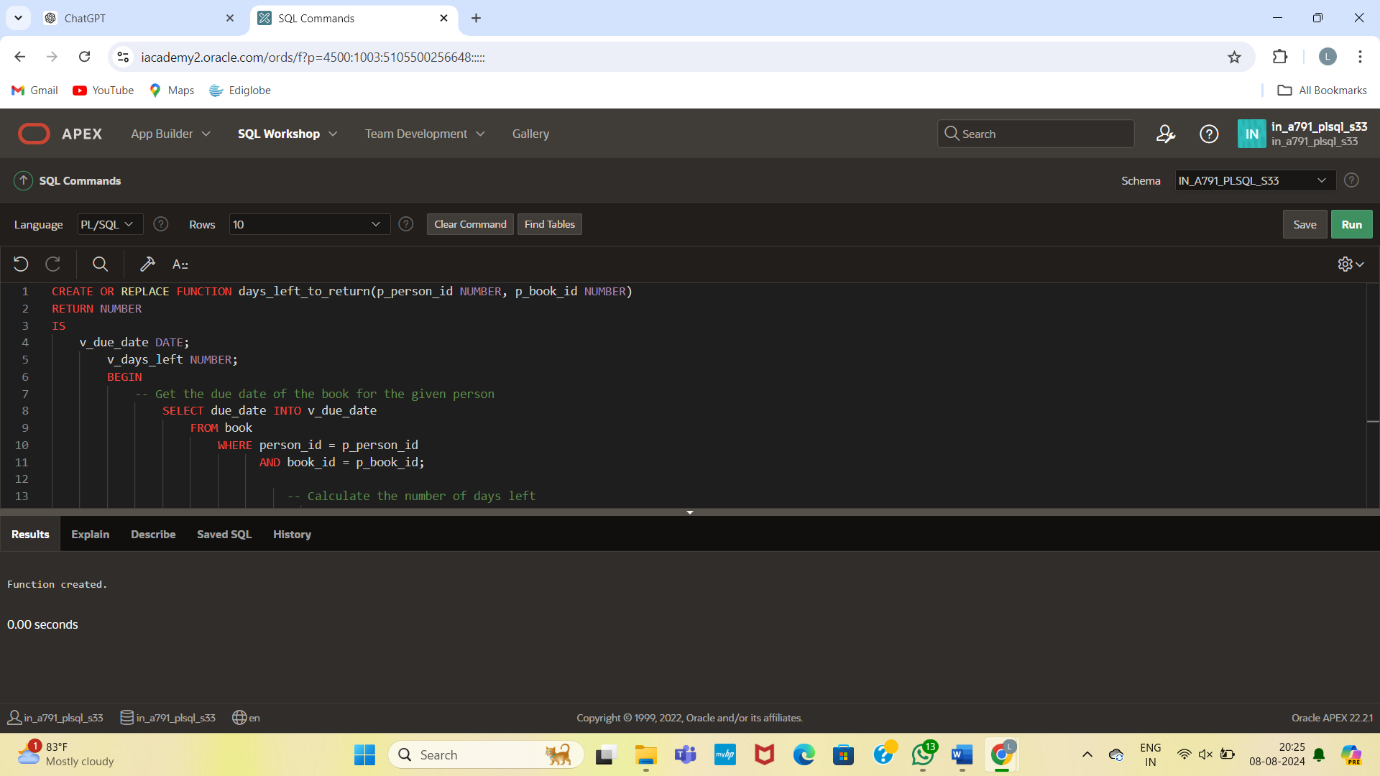
EXCEPTION

WHEN NO\_DATA\_FOUND THEN

RETURN NULL;

END;

/



-- Test the function for person\_id 1 and book\_id 1

DECLARE

v\_days\_left NUMBER;

BEGIN

v\_days\_left := days\_left\_to\_return(1, 1);

DBMS\_OUTPUT.PUT\_LINE('Days left to return the book: ' || v\_days\_left);

END;

/

-- Test the function for person\_id 2 and book\_id 2

DECLARE

v\_days\_left NUMBER;

BEGIN

v\_days\_left := days\_left\_to\_return(2, 2);

DBMS\_OUTPUT.PUT\_LINE('Days left to return the book: ' || v\_days\_left);

END;

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