DBMS
Assignment 6

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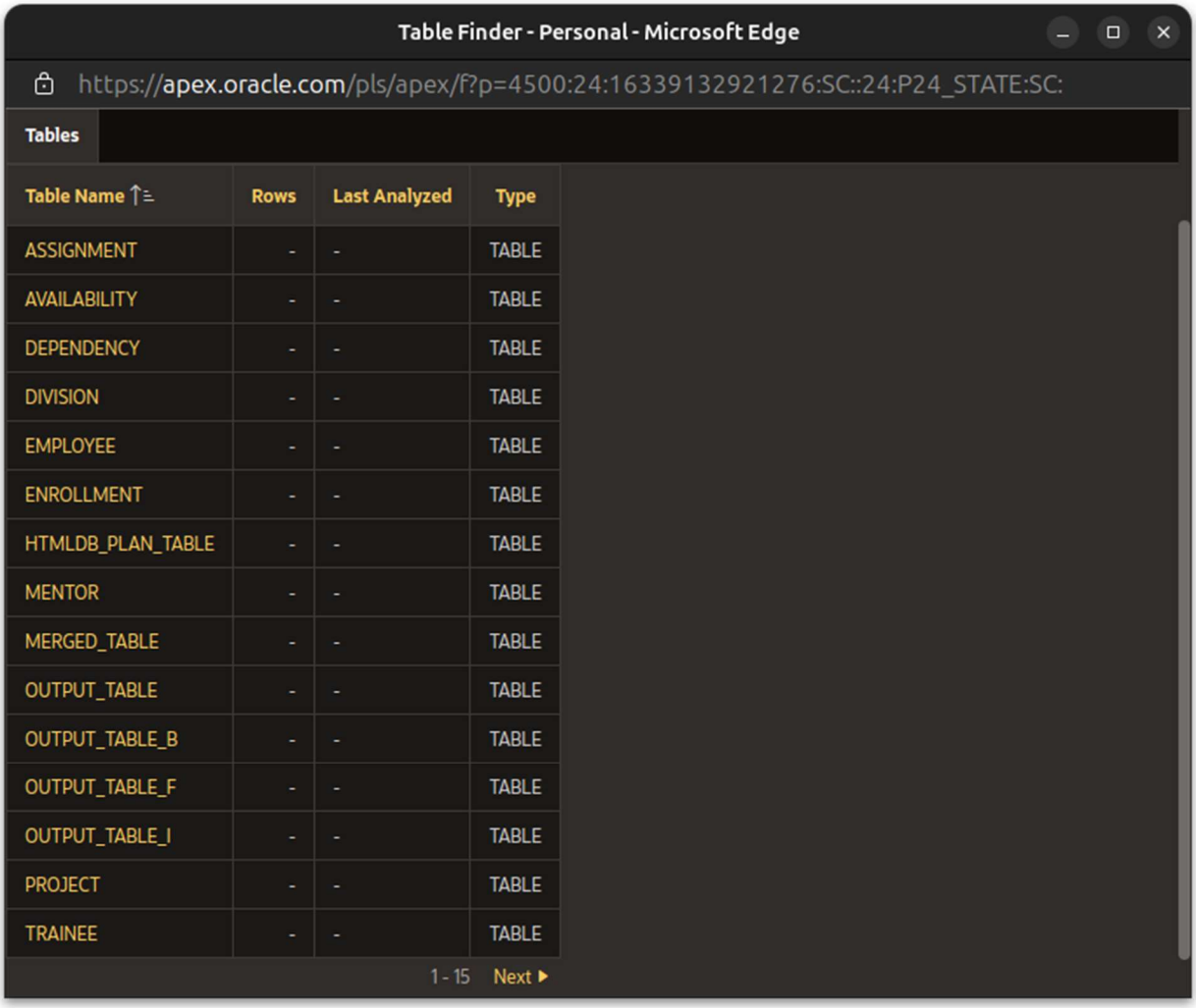
B22CS042

University Projects Schema :

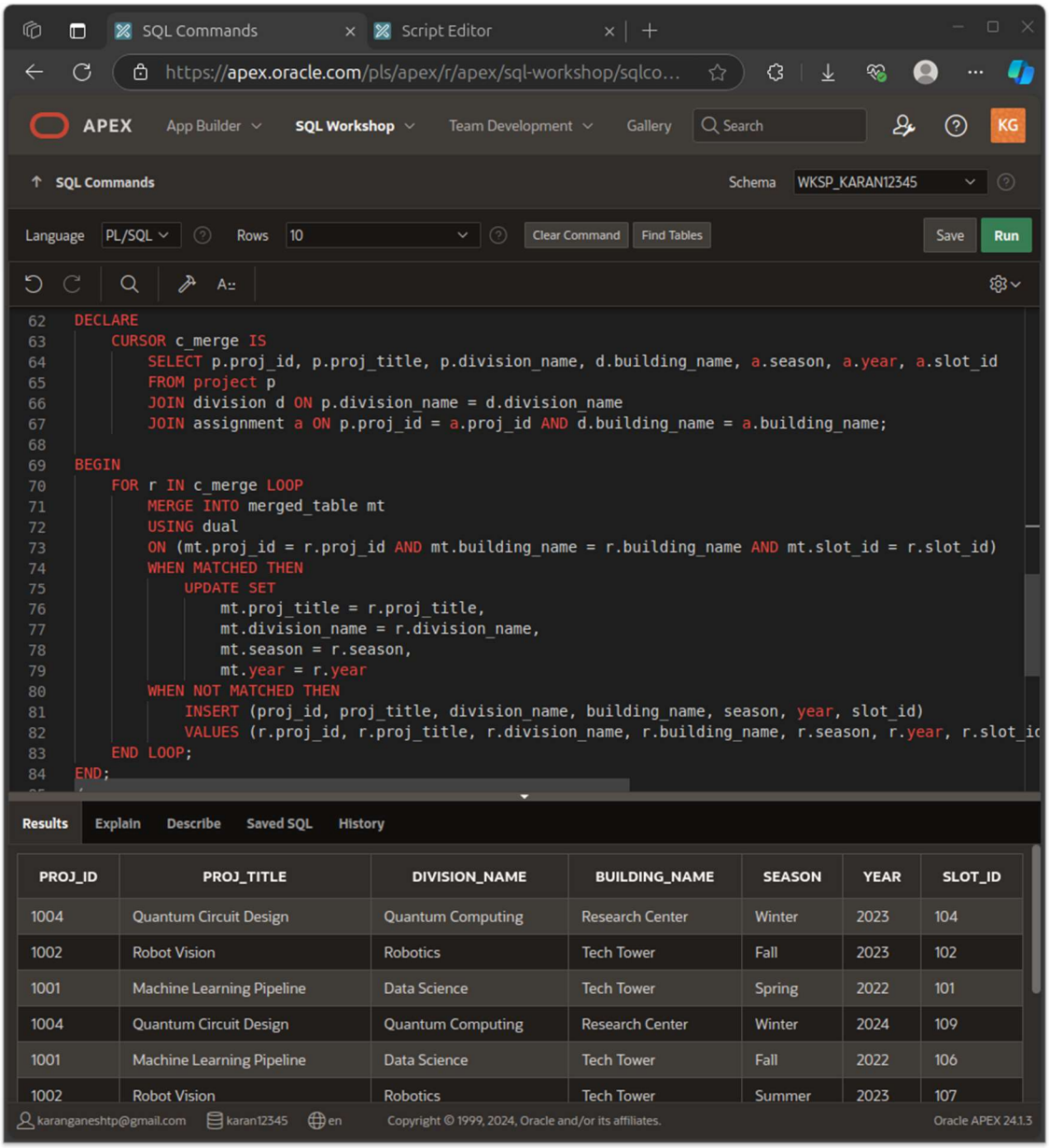
Output :



PL/SQL Queries :

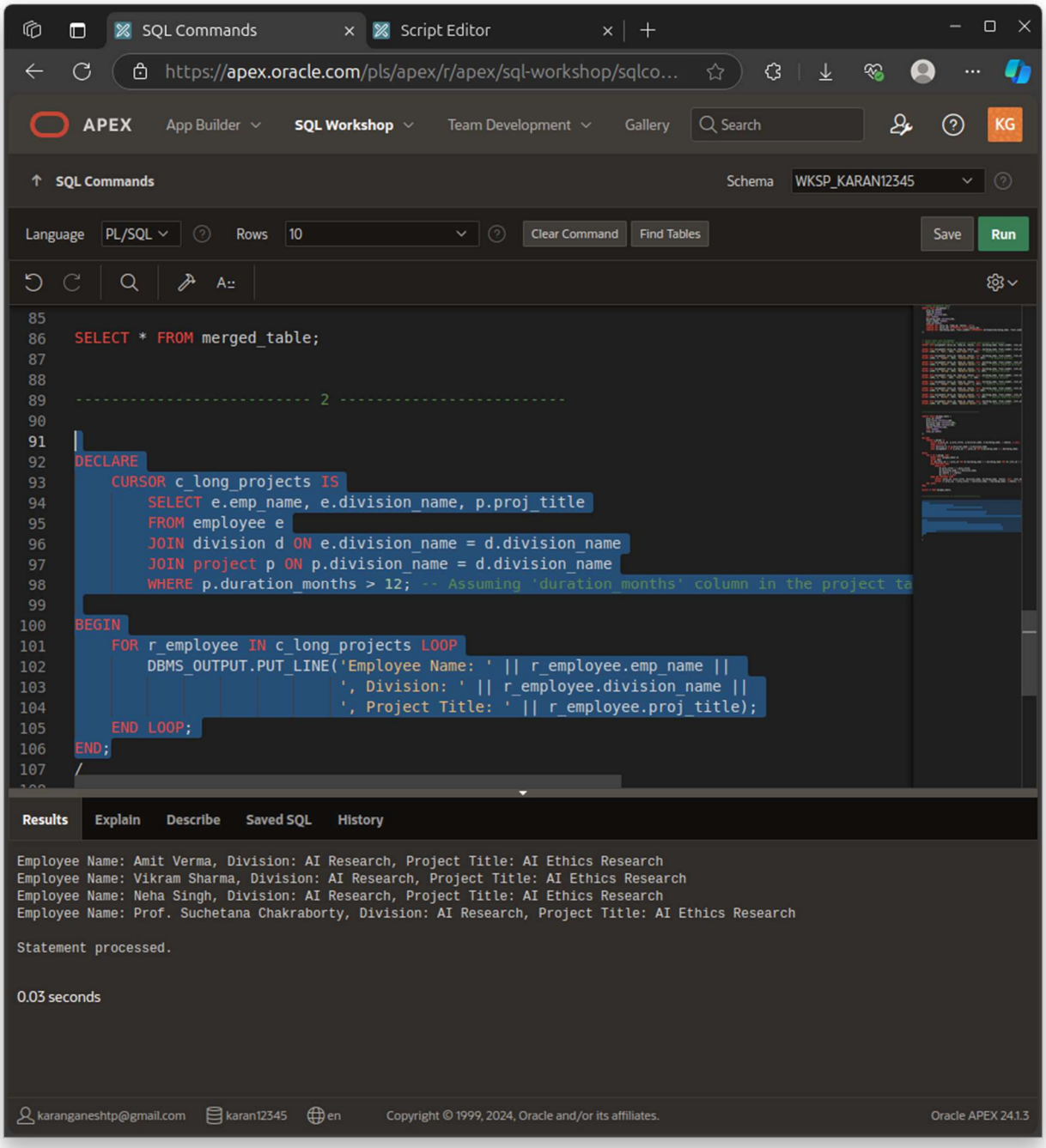
1) Merge Tables: Write a PL/SQL block to merge the “PROJECT” and “DIVISION” tables with the “ASSIGNMENT” table to reduce redundancy.

Output :



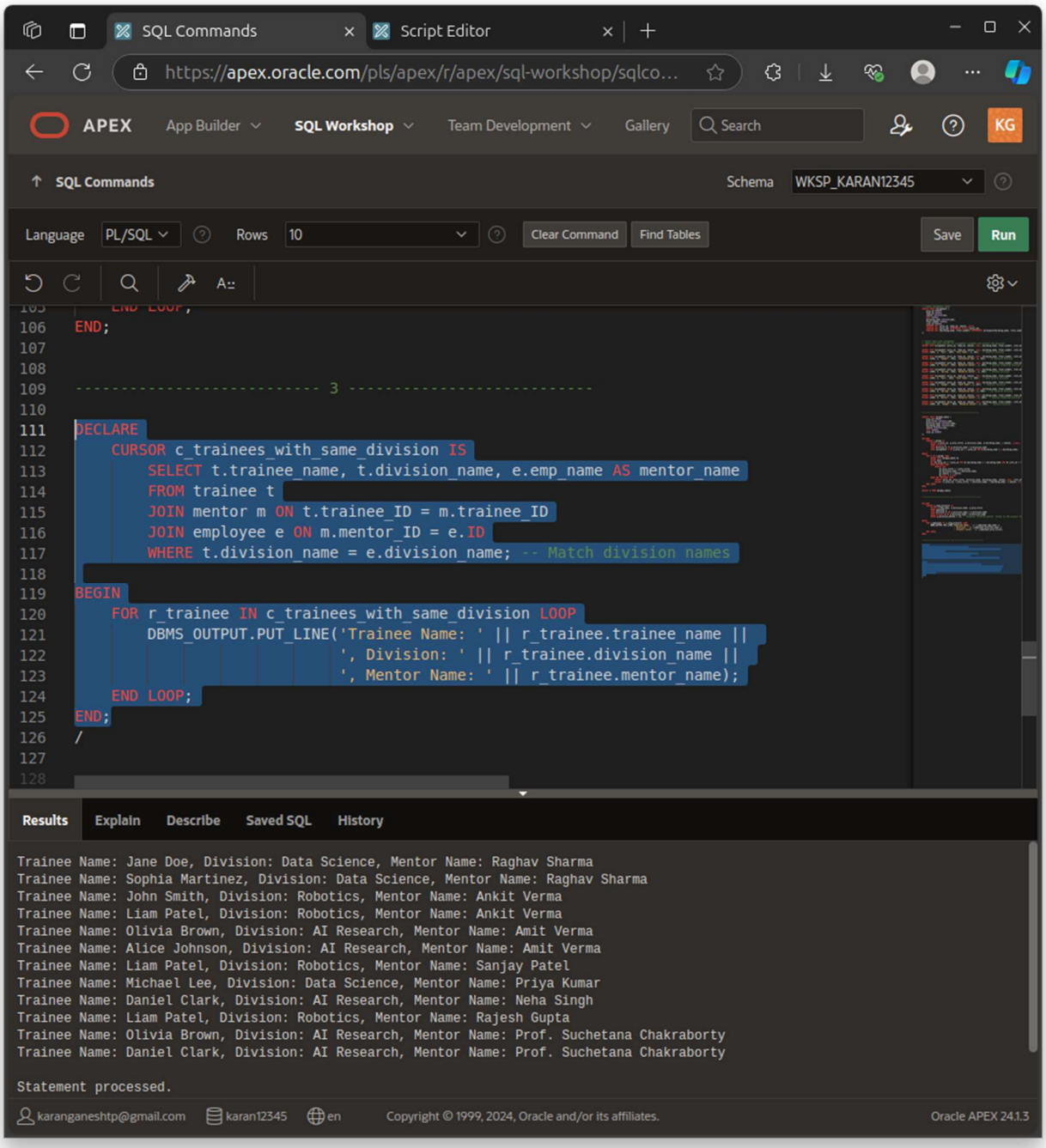
2) Output Employee Details: Write a PL/SQL block to output the emp_name, division_name, and proj_title for employees who work on projects with a duration longer than 12 months.

Output :



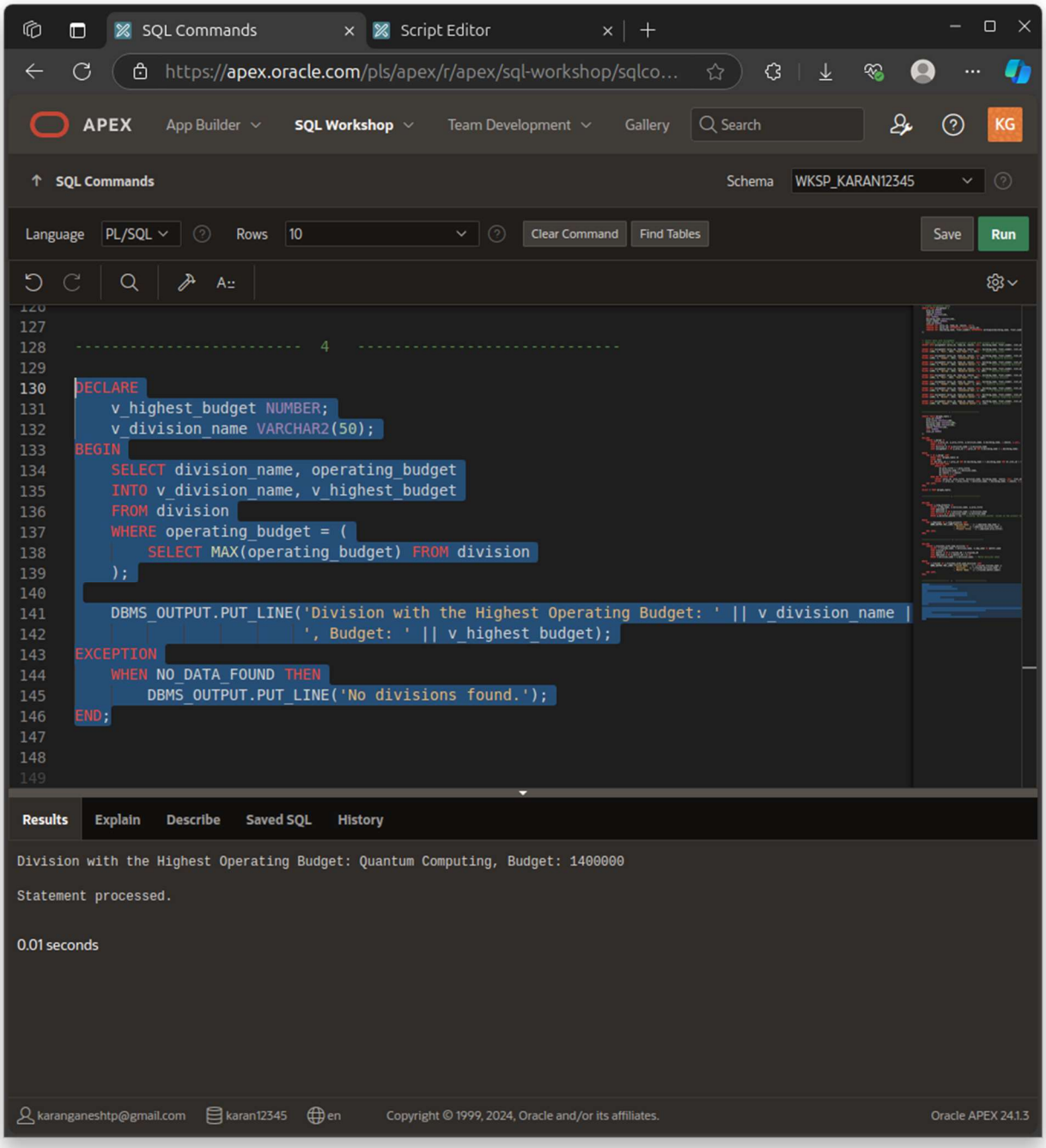
3) Trainees with Mentor: Write a PL/SQL code to find the names of trainees (trainee_name) who have mentors from the same division.

Output :



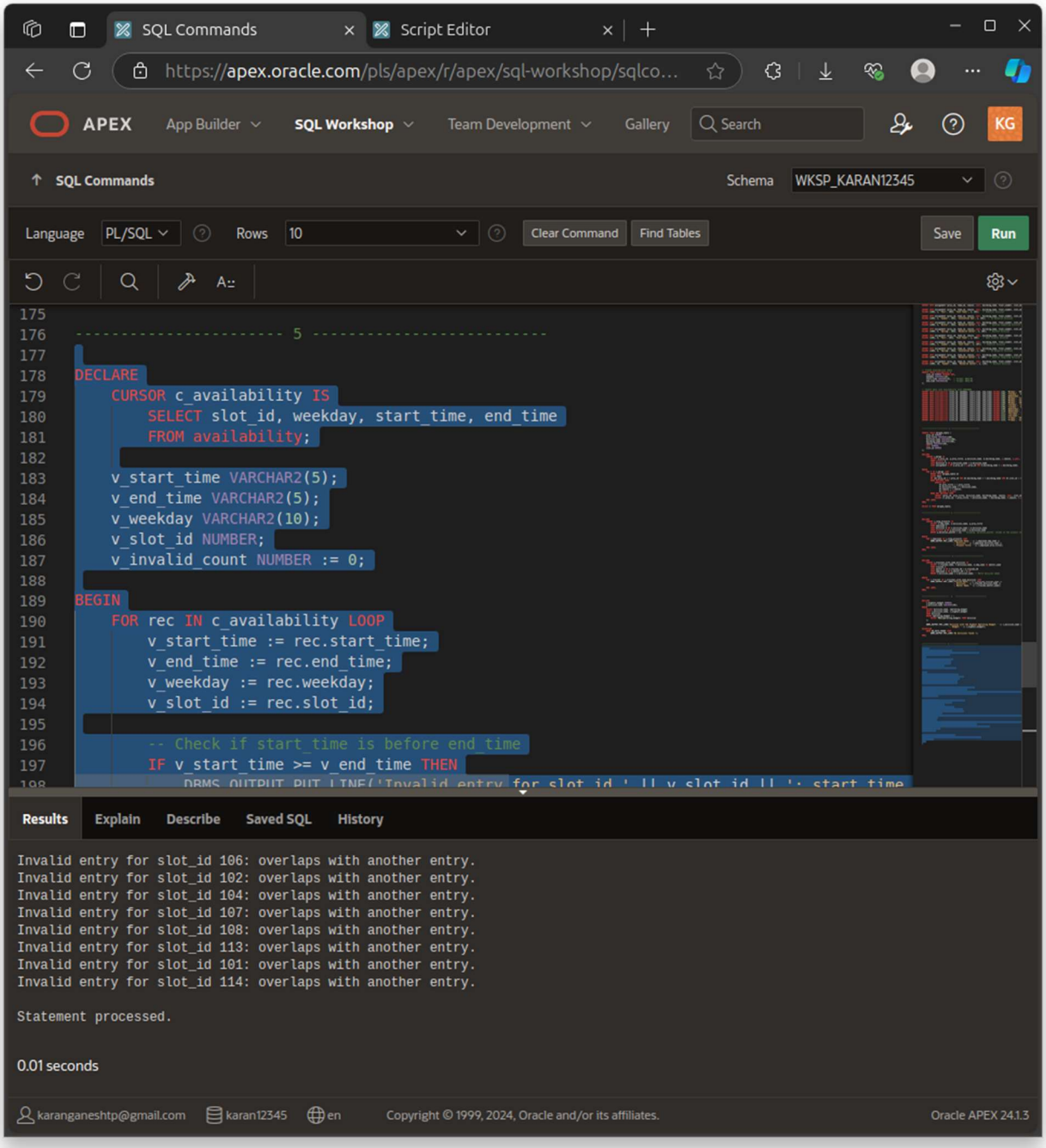
4) Highest Operating Budget: Write a PL/SQL block to find the division_name with the highest operating budget.

Output :



5) Validate Slot Availability: Write a PL/SQL code to check the validity of the availability entries. A valid slot should have the start_time before the end_time and should not overlap with other entries for the same slot_id and weekday.

Output :



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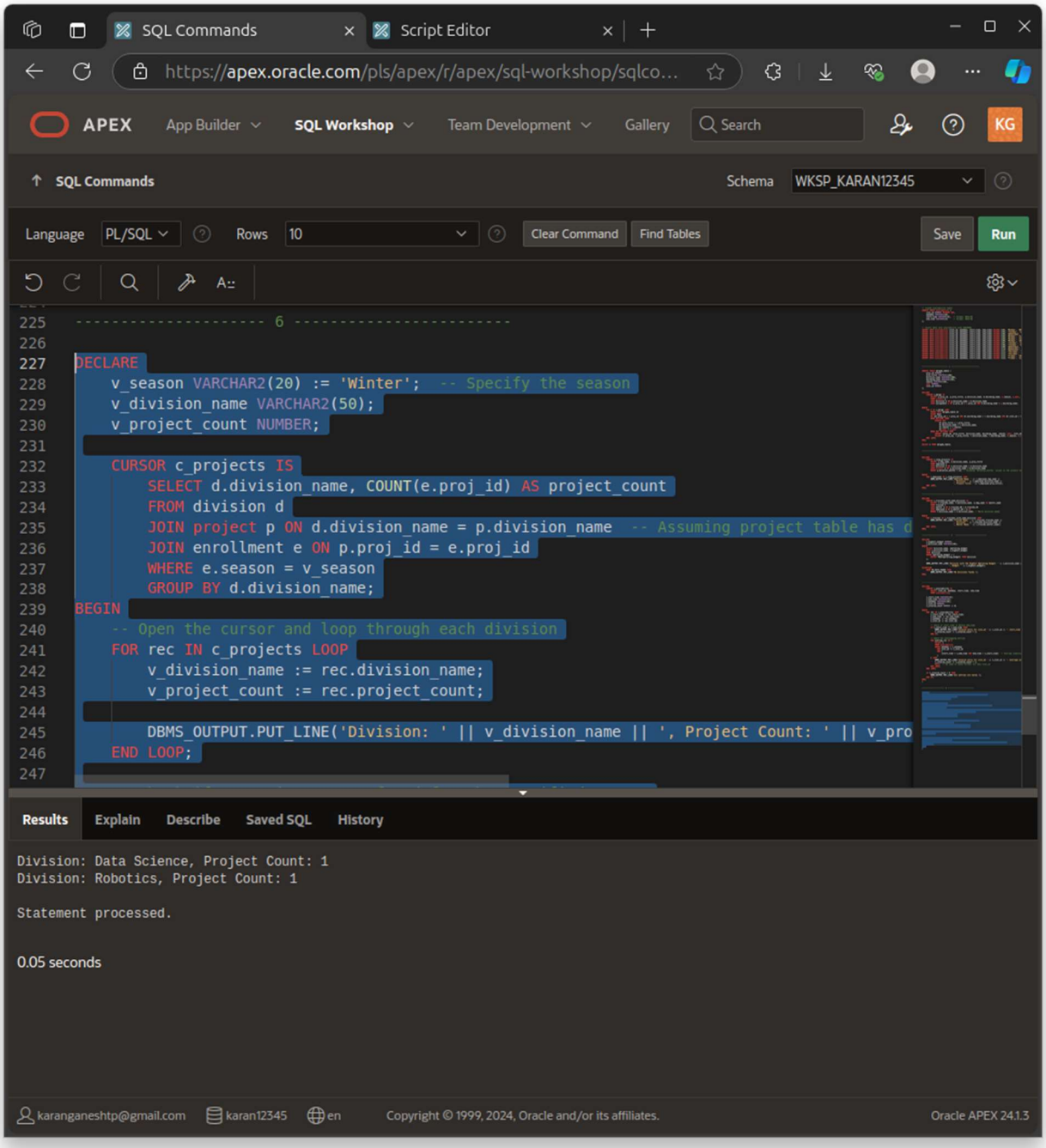
6) Count Projects by Season: Write a PL/SQL block to count the number of projects each division is working on during a given season (e.g., “Winter”).

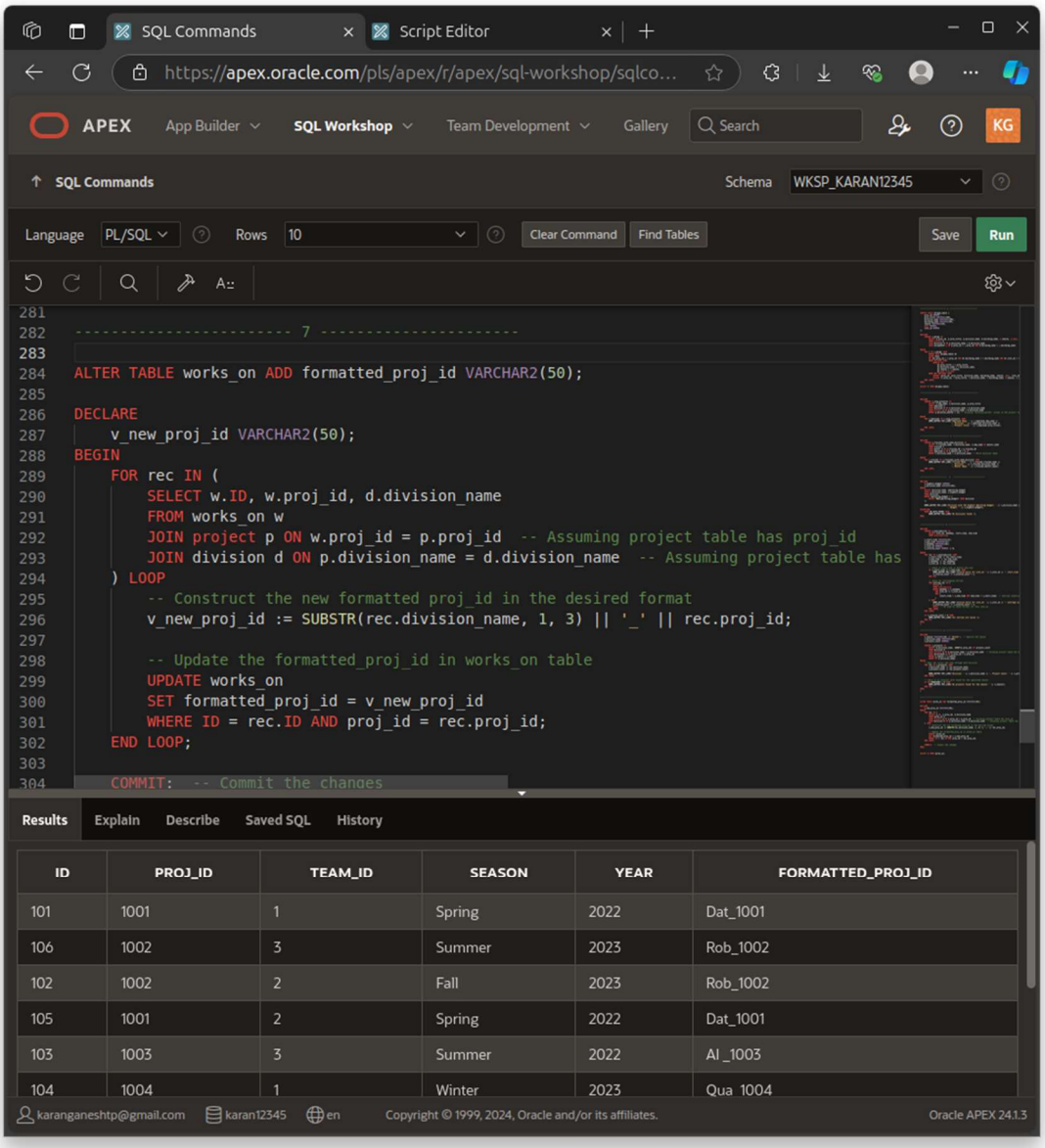
Output :



7) Update Project IDs: Write a PL/SQL block to update the proj_id in the works_on table to follow the format [First 3 letters of division_name]_[proj_id].

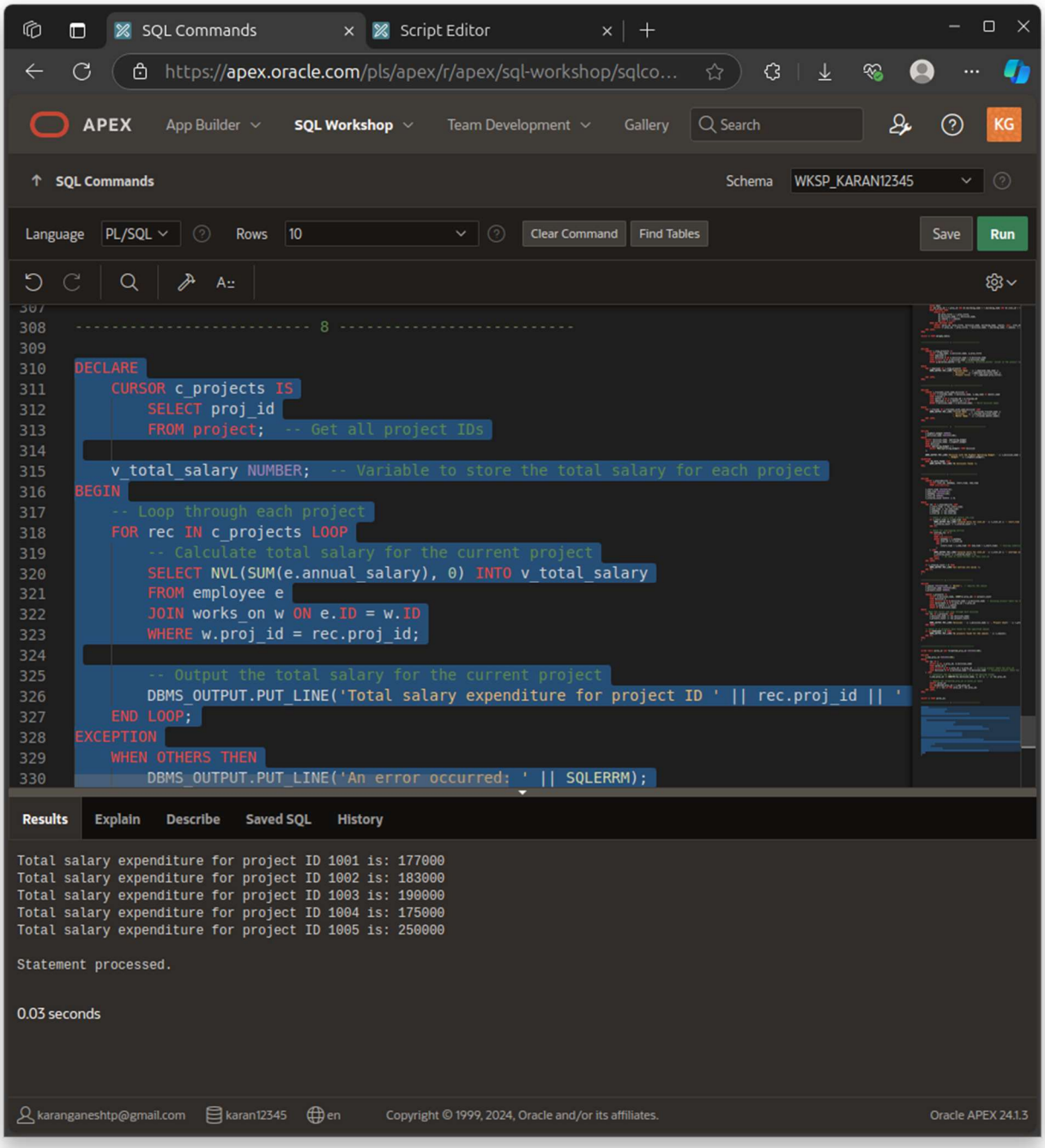
Output :

Since Proj_ID is foreign key in the woks_on table with data type as INT, it can not be changed/formatted in this works_on table because of Intergrity Constraints. Therefore created a new attribute as formatted_proj_id in the works_on Table.



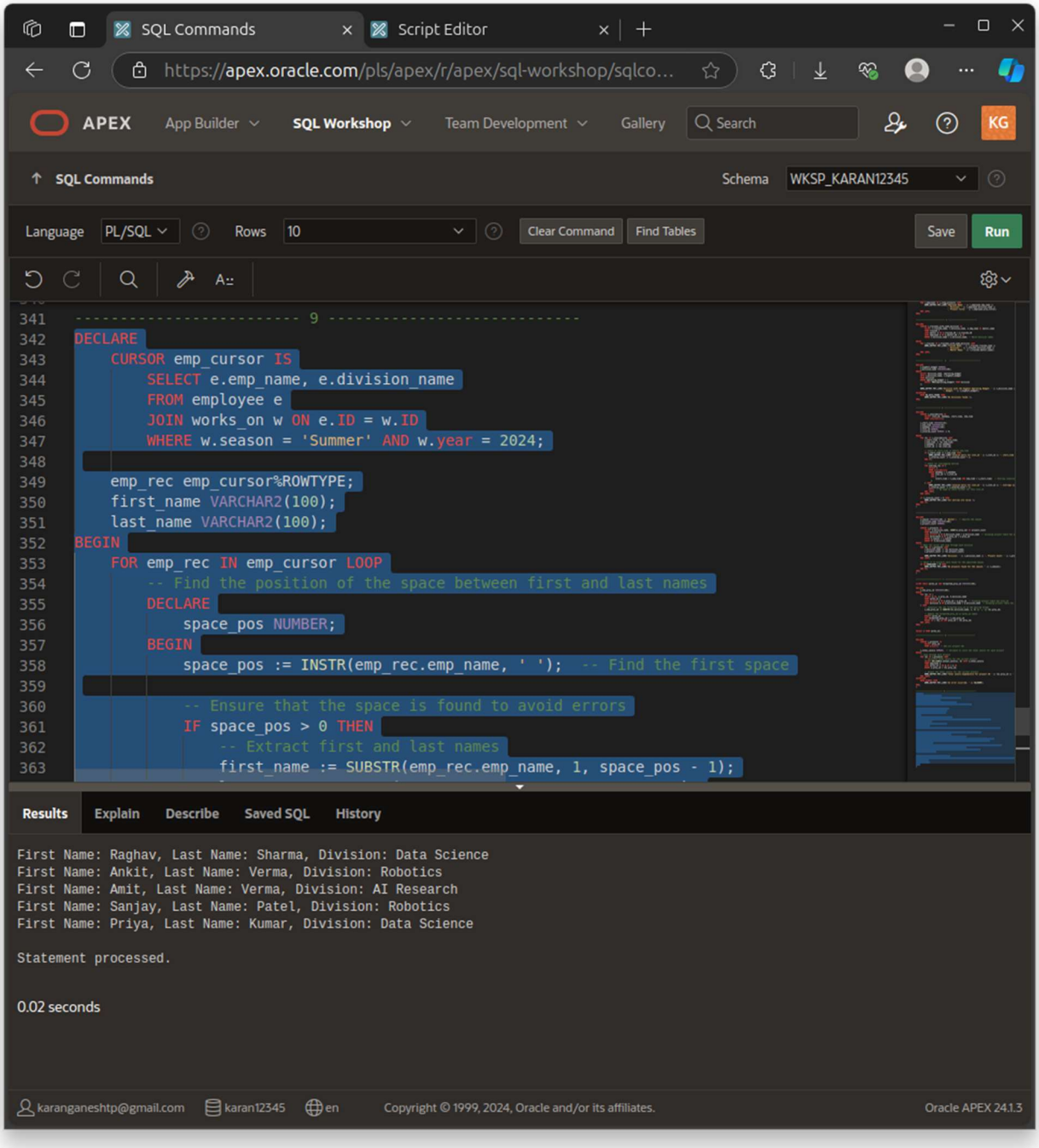
8) Calculate Total Salary: Write a PL/SQL block to compute the total salary expenditure for a project based on the employees assigned to that project.

Output :



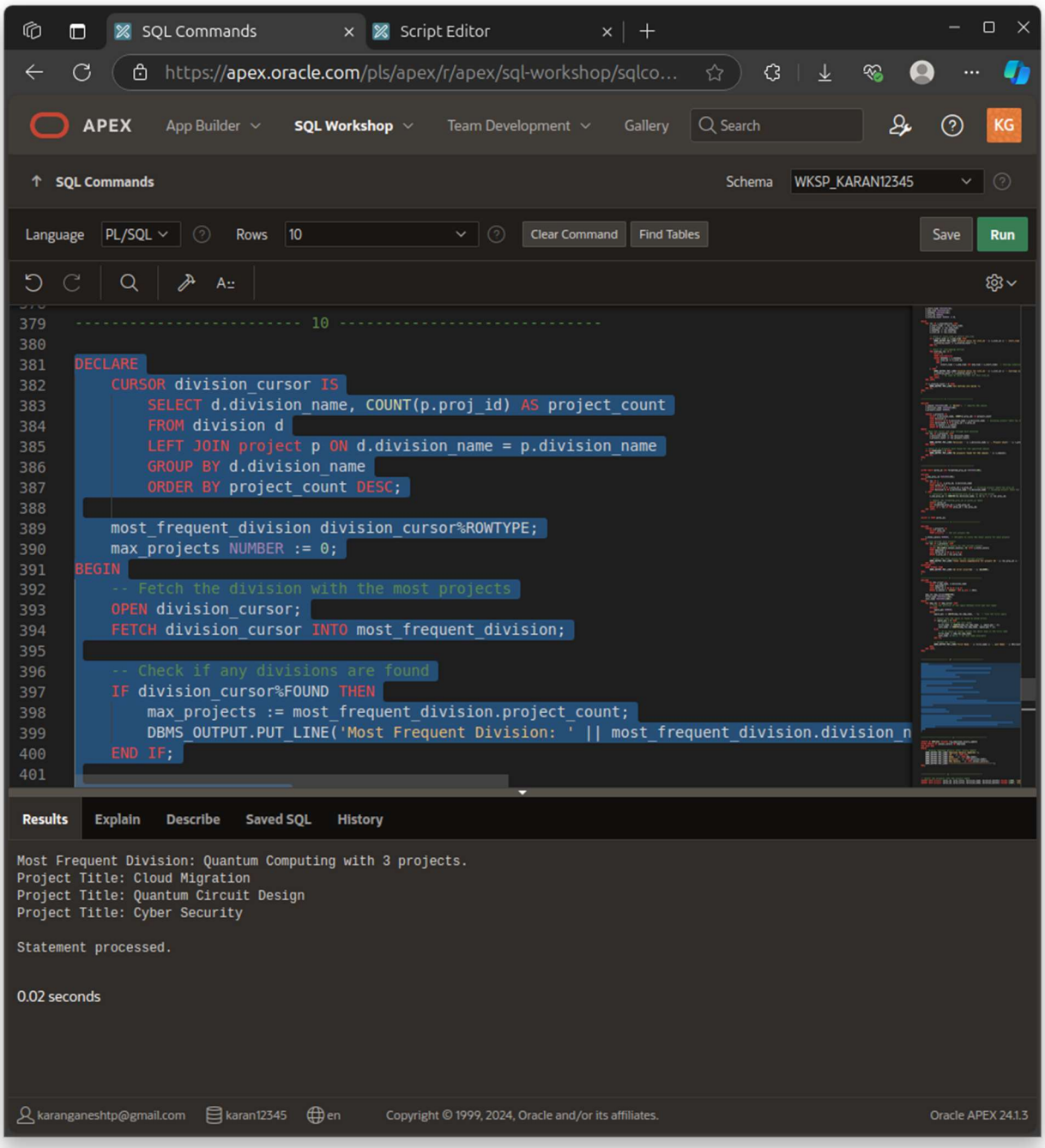
9) List Employees on Summer Projects: Write a PL/SQL block to output the first name, last name, and division_name of all employees who have been assigned to a project during the “Summer” season for the current year.

Output :



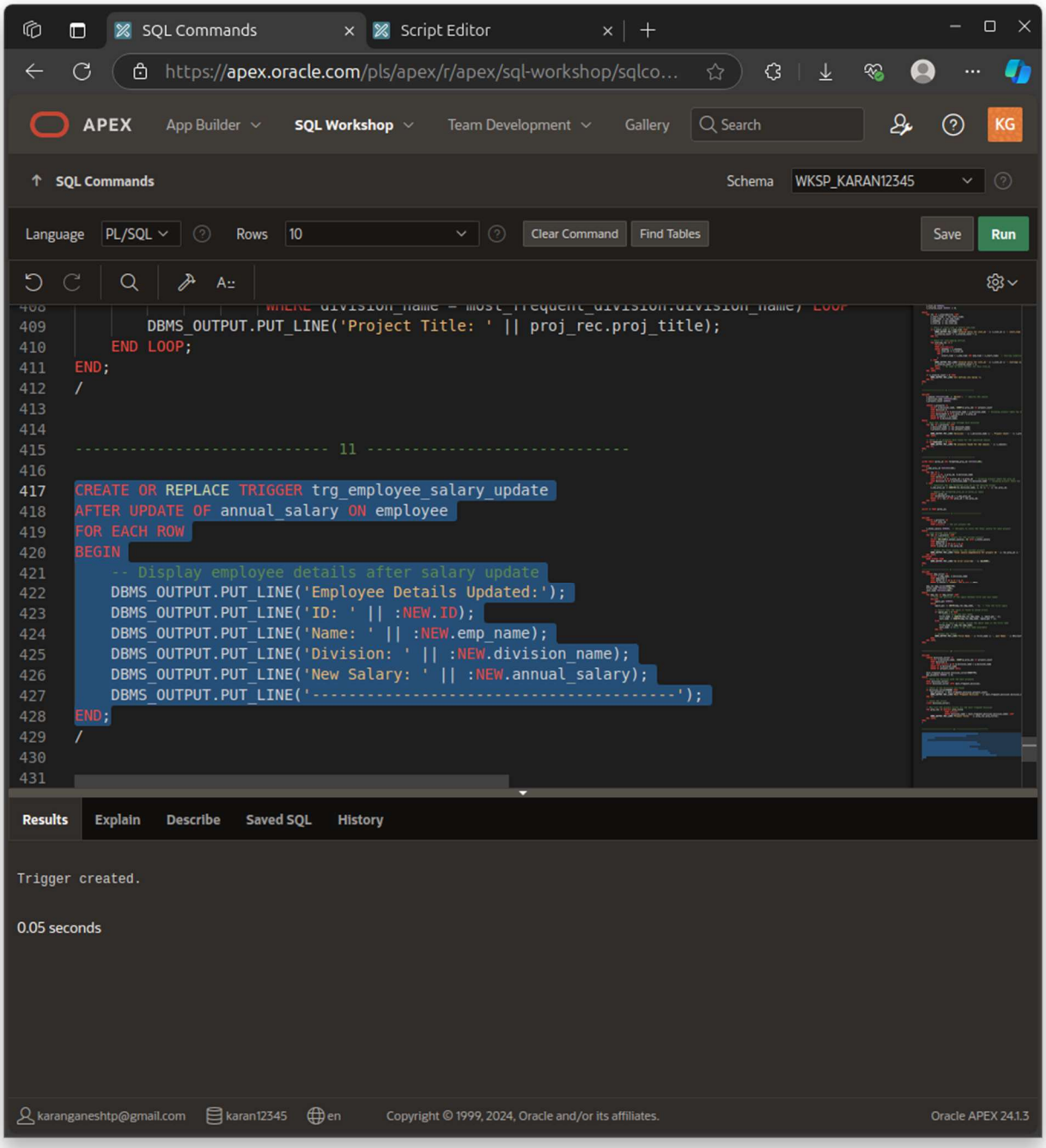
10) Most Frequent Division in Projects: Write a PL/SQL block to find the division that has the most number of projects assigned to it and list the division_name and proj_title.

Output:



11) Trigger on Employee Update: Write a PL/SQL trigger that displays all details of an employee whenever their salary is updated in the employee table.

Output:


SQL Commands
Script Editor
https://apex.oracle.com/pls/apex/r/apex/sql-workshop/sqlco...
APEX
App Builder
SQL Workshop
Team Development
Gallery
Search
KG
SQL Commands
Schema
WKSP_KARAN12345
Language
PL/SQL
Rows
10
Clear Command
Find Tables
Save
Run
DBMS_OUTPUT.PUT_LINE('Project Title: ' || proj_rec.proj_title);
END LOOP;
END;
/
---------- 11 ----------
CREATE OR REPLACE TRIGGER trg_employee_salary_update
AFTER UPDATE OF annual_salary ON employee
FOR EACH ROW
BEGIN
-- Display employee details after salary update
DBMS_OUTPUT.PUT_LINE('Employee Details Updated:');
DBMS_OUTPUT.PUT_LINE('ID: ' || :NEW.ID);
DBMS_OUTPUT.PUT_LINE('Name: ' || :NEW.emp_name);
DBMS_OUTPUT.PUT_LINE('Division: ' || :NEW.division_name);
DBMS_OUTPUT.PUT_LINE('New Salary: ' || :NEW.annual_salary);
DBMS_OUTPUT.PUT_LINE('----------');
END;
/
Results
Explain
Describe
Saved SQL
History
Trigger created.
0.05 seconds
karanganeshtp@gmail.com
karan12345
en
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Oracle APEX 24.1.3

12) Insert Projects Using Cursor: Insert two new projects in the project table (e.g., “Cyber Security”, “Cloud Migration”) with arbitrary attributes. Now, using a CURSOR, write a PL/SQL code to enter a new record in the dependency table corresponding to the projects listed in project that do not have any dependencies in the dependency table.

Output: