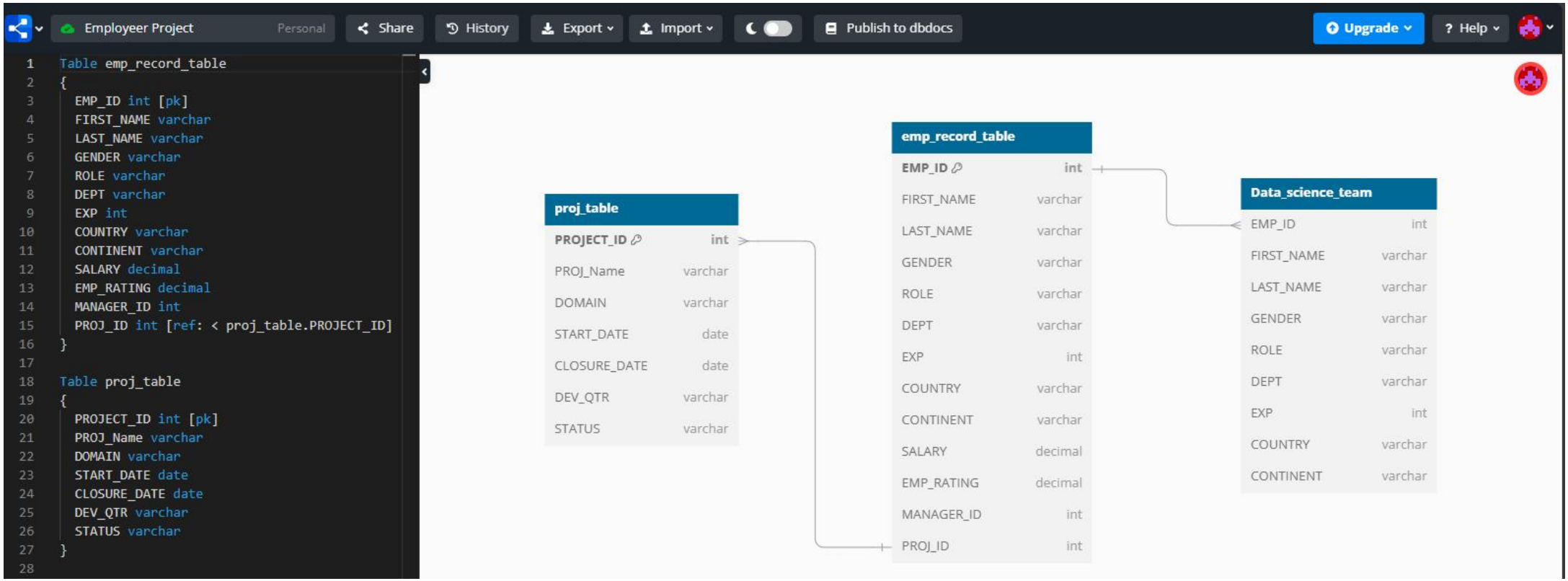
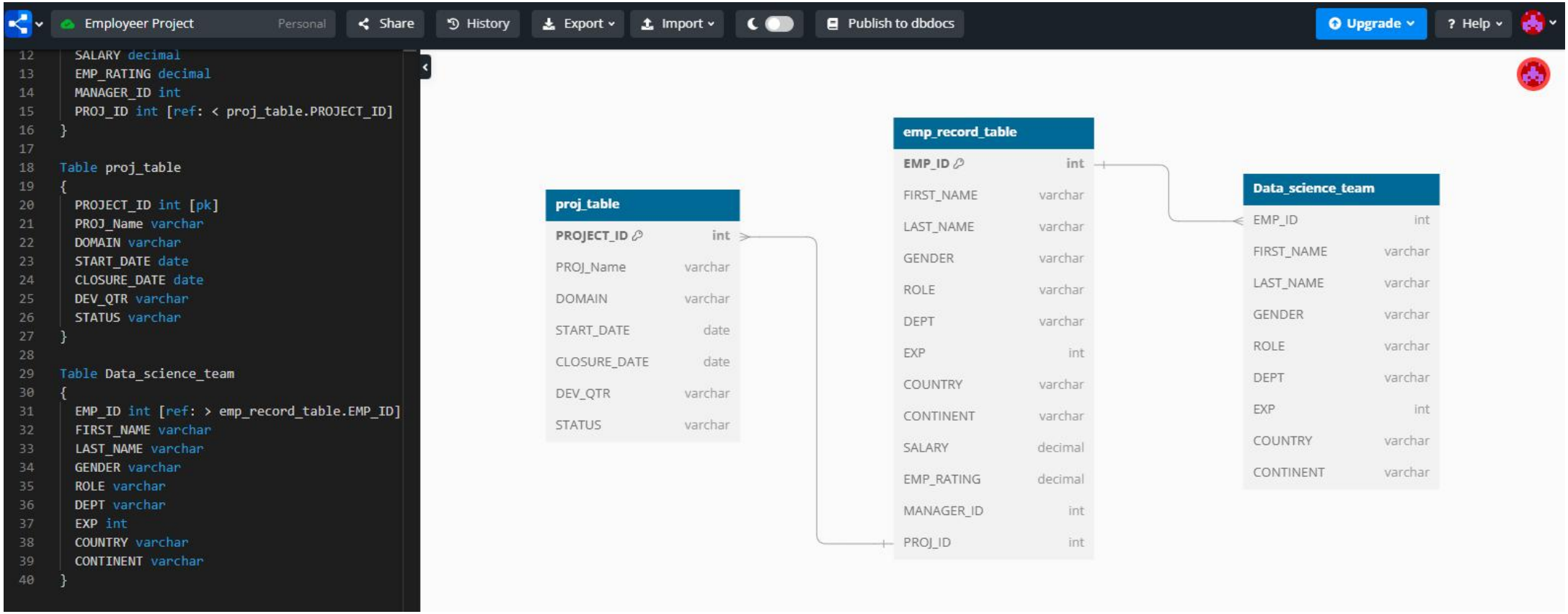
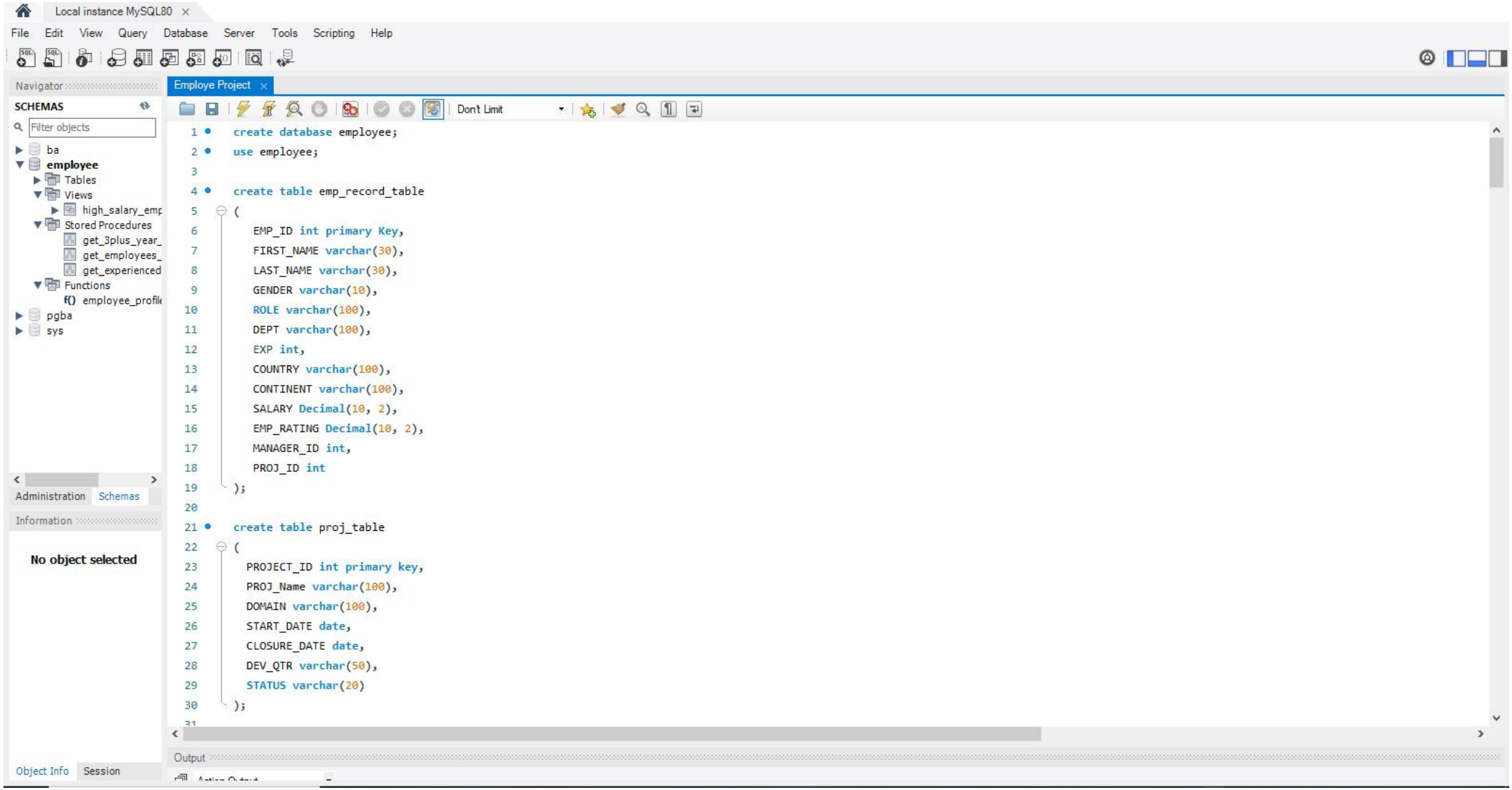
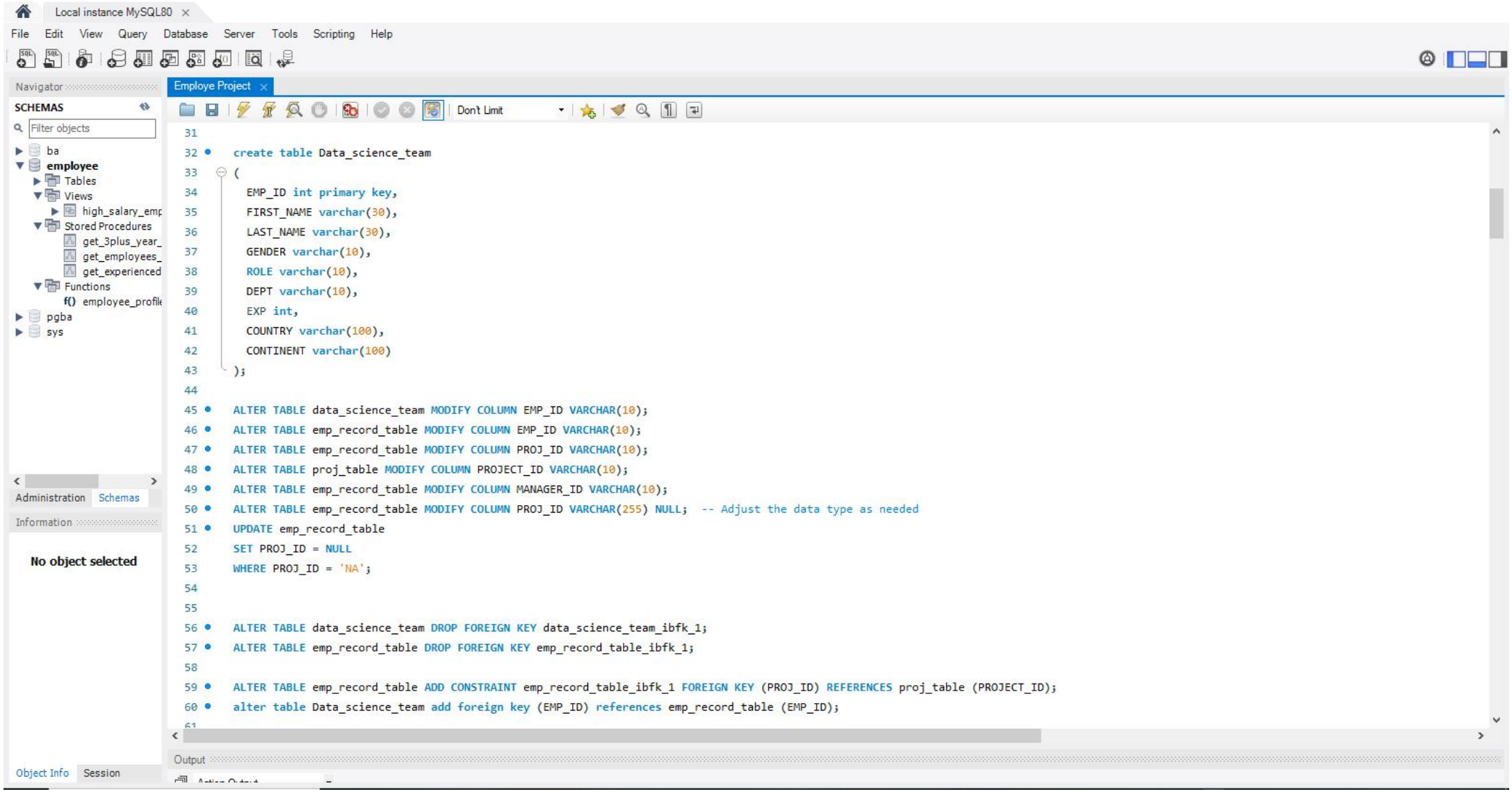

Employeer Project
Personal
Share
History
Export
Import
Publish to dbdocs
Upgrade
Help
Table emp_record_table
{
EMP_ID int [pk]
FIRST_NAME varchar
LAST_NAME varchar
GENDER varchar
ROLE varchar
DEPT varchar
EXP int
COUNTRY varchar
CONTINENT varchar
SALARY decimal
EMP_RATING decimal
MANAGER_ID int
PROJ_ID int [ref: < proj_table.PROJECT_ID]
}
Table proj_table
{
PROJECT_ID int [pk]
PROJ_Name varchar
DOMAIN varchar
START_DATE date
CLOSURE_DATE date
DEV_QTR varchar
STATUS varchar
}
proj_table
PROJECT_ID int
PROJ_Name varchar
DOMAIN varchar
START_DATE date
CLOSURE_DATE date
DEV_QTR varchar
STATUS varchar
emp_record_table
EMP_ID int
FIRST_NAME varchar
LAST_NAME varchar
GENDER varchar
ROLE varchar
DEPT varchar
EXP int
COUNTRY varchar
CONTINENT varchar
SALARY decimal
EMP_RATING decimal
MANAGER_ID int
PROJ_ID int
Data_science_team
EMP_ID int
FIRST_NAME varchar
LAST_NAME varchar
GENDER varchar
ROLE varchar
DEPT varchar
EXP int
COUNTRY varchar
CONTINENT varchar


Employeer Project
Personal
Share
History
Export
Import
Publish to dbdocs
Upgrade
Help
SALARY decimal
EMP_RATING decimal
MANAGER_ID int
PROJ_ID int [ref: < proj_table.PROJECT_ID]
}
Table proj_table
{
PROJECT_ID int [pk]
PROJ_Name varchar
DOMAIN varchar
START_DATE date
CLOSURE_DATE date
DEV_QTR varchar
STATUS varchar
}
Table Data_science_team
{
EMP_ID int [ref: > emp_record_table.EMP_ID]
FIRST_NAME varchar
LAST_NAME varchar
GENDER varchar
ROLE varchar
DEPT varchar
EXP int
COUNTRY varchar
CONTINENT varchar
}
proj_table
PROJECT_ID int
PROJ_Name varchar
DOMAIN varchar
START_DATE date
CLOSURE_DATE date
DEV_QTR varchar
STATUS varchar
emp_record_table
EMP_ID int
FIRST_NAME varchar
LAST_NAME varchar
GENDER varchar
ROLE varchar
DEPT varchar
EXP int
COUNTRY varchar
CONTINENT varchar
SALARY decimal
EMP_RATING decimal
MANAGER_ID int
PROJ_ID int
Data_science_team
EMP_ID int
FIRST_NAME varchar
LAST_NAME varchar
GENDER varchar
ROLE varchar
DEPT varchar
EXP int
COUNTRY varchar
CONTINENT varchar


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project
Don't Limit
1 create database employee;
2 use employee;
3
4 create table emp_record_table
5 (
6 EMP_ID int primary Key,
7 FIRST_NAME varchar(30),
8 LAST_NAME varchar(30),
9 GENDER varchar(10),
10 ROLE varchar(100),
11 DEPT varchar(100),
12 EXP int,
13 COUNTRY varchar(100),
14 CONTINENT varchar(100),
15 SALARY Decimal(10, 2),
16 EMP_RATING Decimal(10, 2),
17 MANAGER_ID int,
18 PROJ_ID int
19);
20
21 create table proj_table
22 (
23 PROJECT_ID int primary key,
24 PROJ_Name varchar(100),
25 DOMAIN varchar(100),
26 START_DATE date,
27 CLOSURE_DATE date,
28 DEV_QTR varchar(50),
29 STATUS varchar(20)
30);
Output


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
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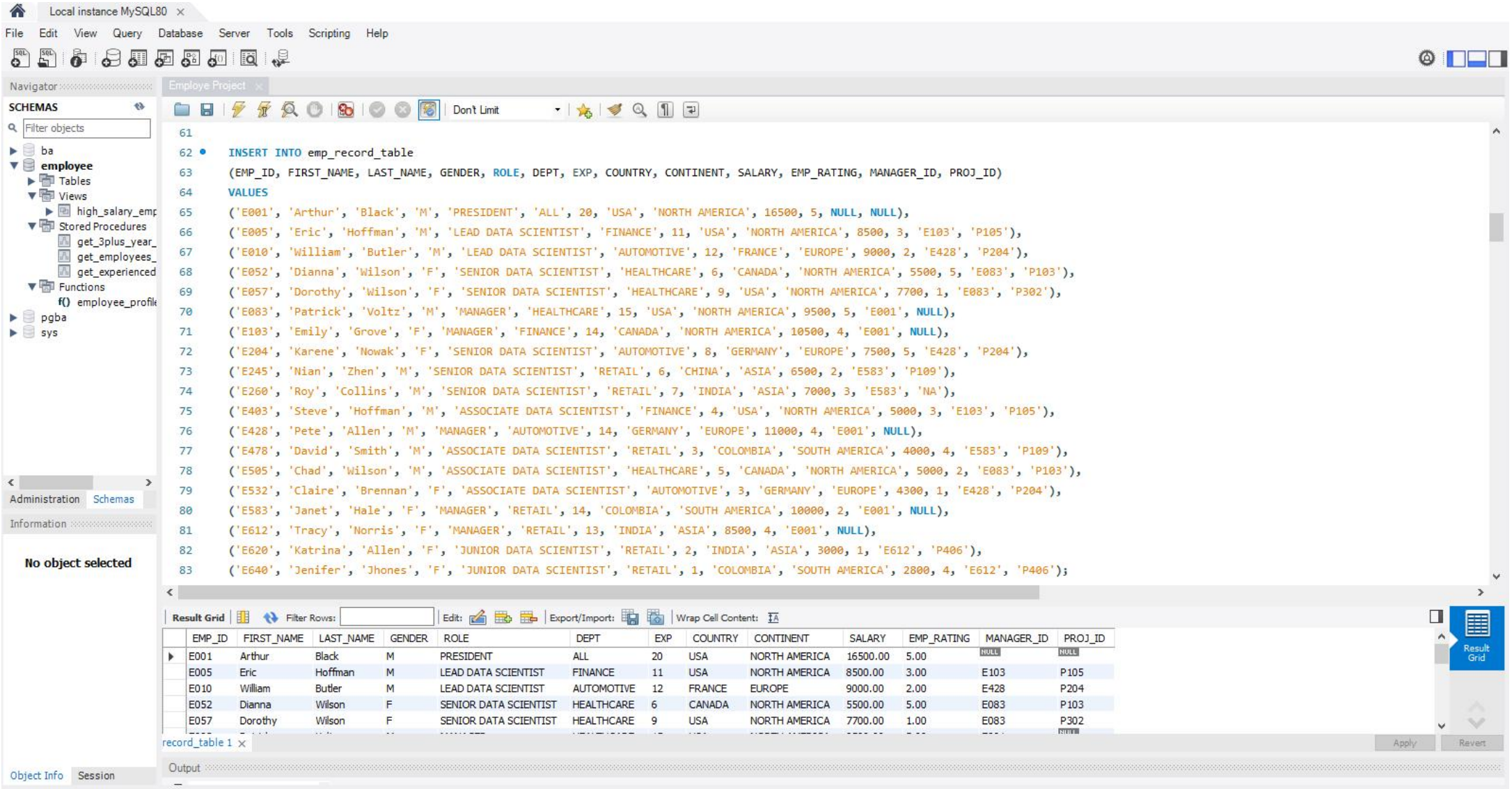
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project
Don't Limit
31
32 create table Data_science_team
33 (
34 EMP_ID int primary key,
35 FIRST_NAME varchar(30),
36 LAST_NAME varchar(30),
37 GENDER varchar(10),
38 ROLE varchar(10),
39 DEPT varchar(10),
40 EXP int,
41 COUNTRY varchar(100),
42 CONTINENT varchar(100)
43);
44
45 ALTER TABLE data_science_team MODIFY COLUMN EMP_ID VARCHAR(10);
46 ALTER TABLE emp_record_table MODIFY COLUMN EMP_ID VARCHAR(10);
47 ALTER TABLE emp_record_table MODIFY COLUMN PROJ_ID VARCHAR(10);
48 ALTER TABLE proj_table MODIFY COLUMN PROJECT_ID VARCHAR(10);
49 ALTER TABLE emp_record_table MODIFY COLUMN MANAGER_ID VARCHAR(10);
50 ALTER TABLE emp_record_table MODIFY COLUMN PROJ_ID VARCHAR(255) NULL; -- Adjust the data type as needed
51 UPDATE emp_record_table
52 SET PROJ_ID = NULL
53 WHERE PROJ_ID = 'NA';
54
55
56 ALTER TABLE data_science_team DROP FOREIGN KEY data_science_team_ibfk_1;
57 ALTER TABLE emp_record_table DROP FOREIGN KEY emp_record_table_ibfk_1;
58
59 ALTER TABLE emp_record_table ADD CONSTRAINT emp_record_table_ibfk_1 FOREIGN KEY (PROJ_ID) REFERENCES proj_table (PROJECT_ID);
60 alter table Data_science_team add foreign key (EMP_ID) references emp_record_table (EMP_ID);
Output


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
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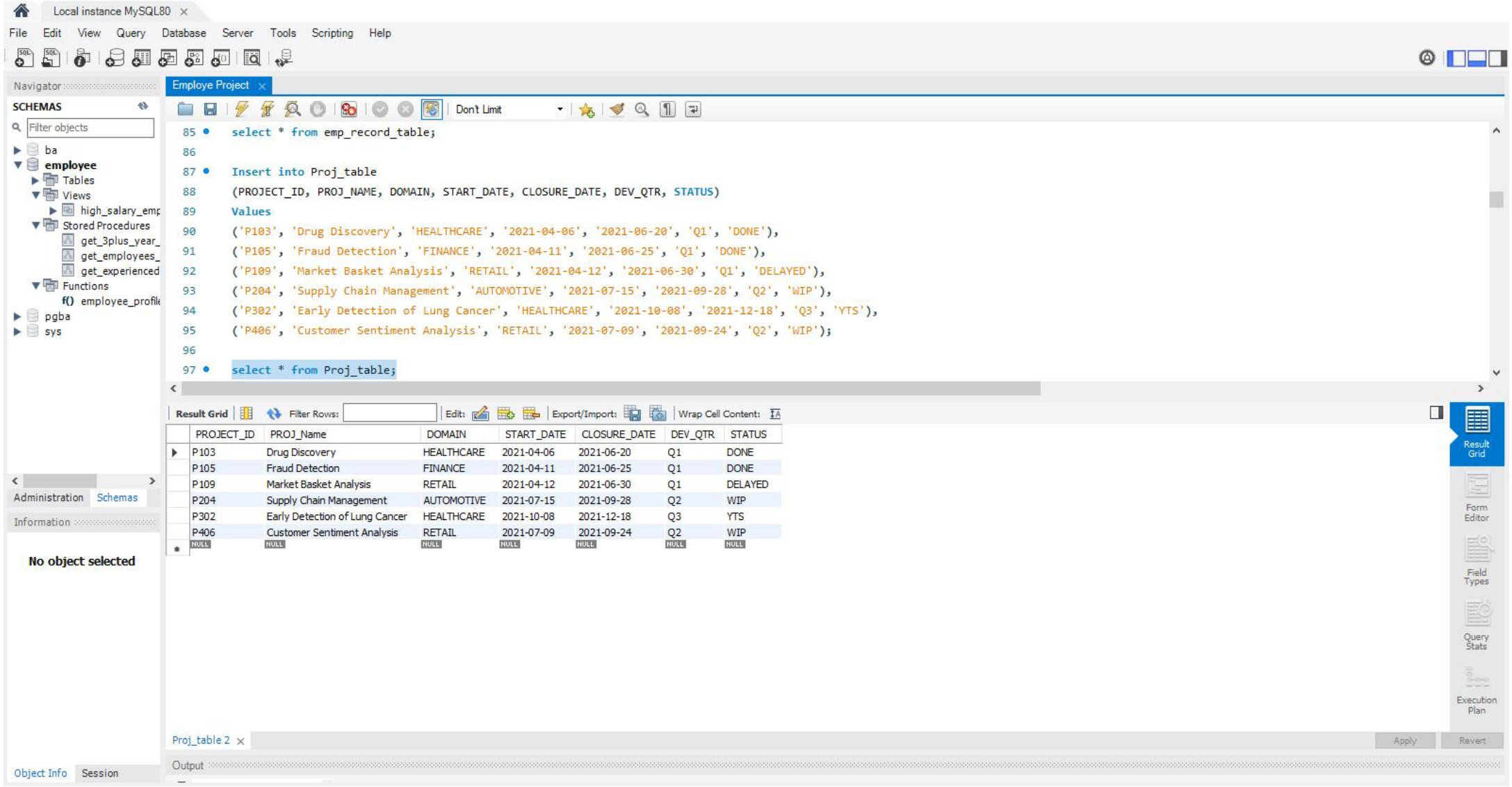
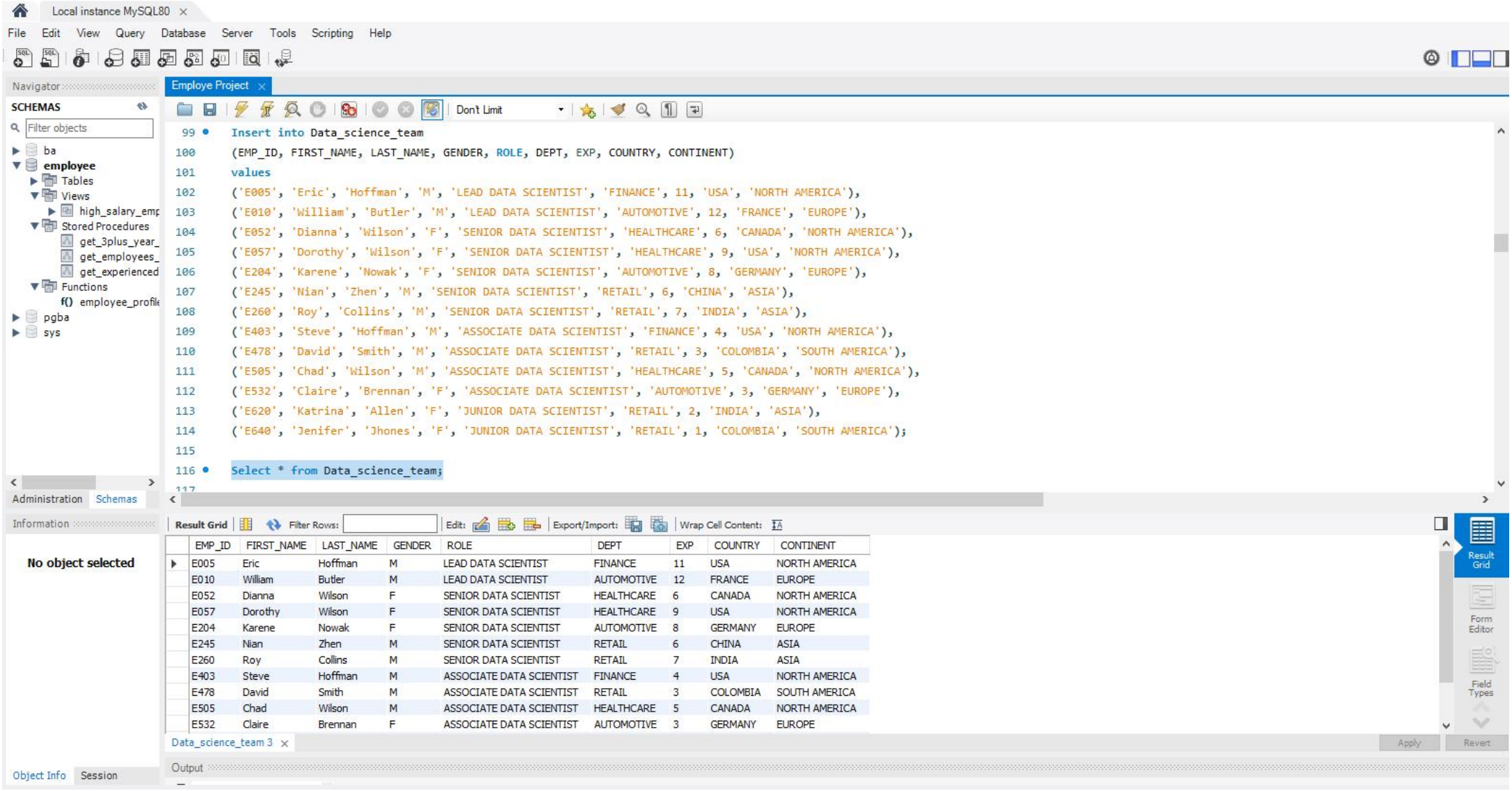
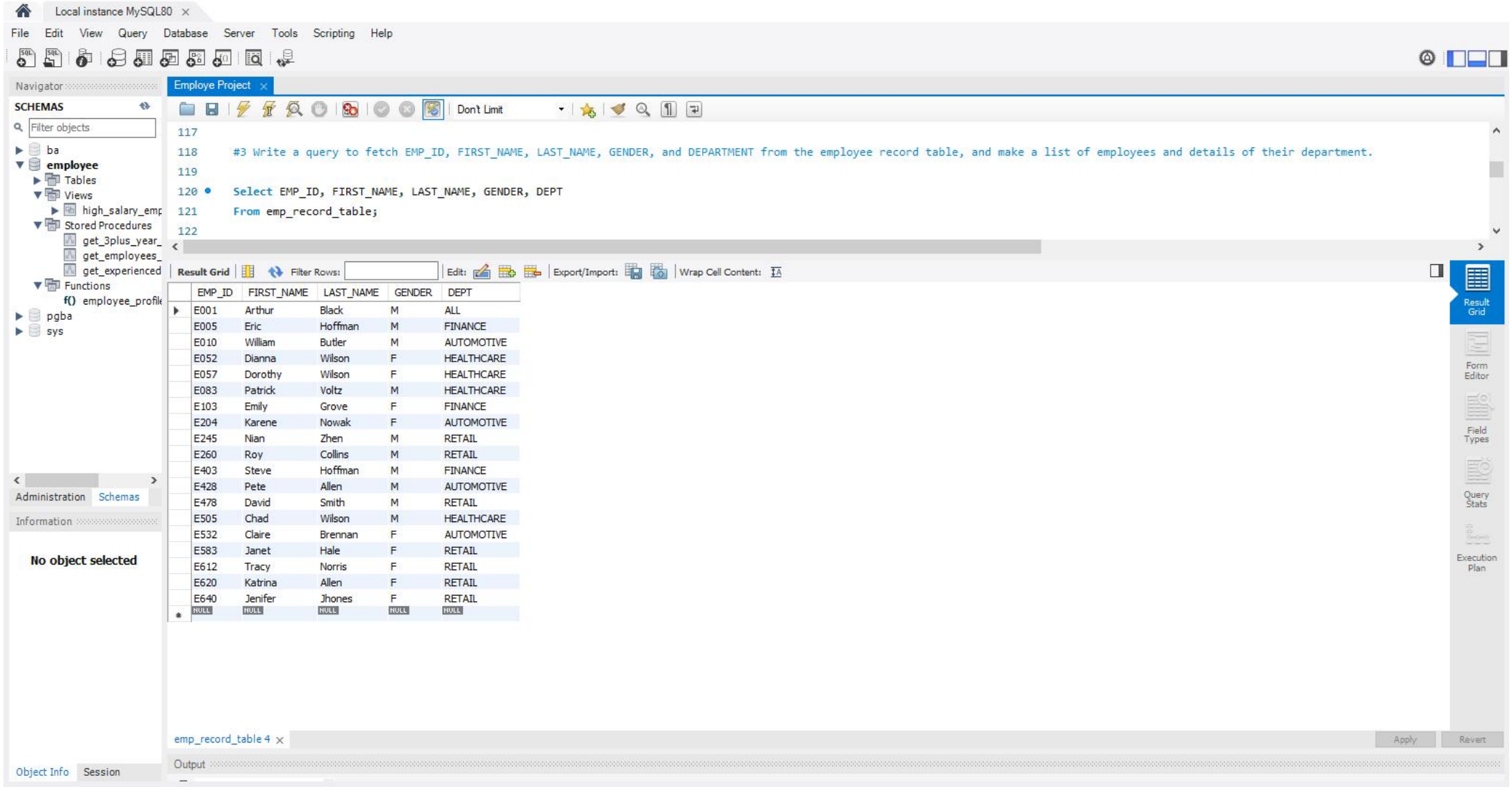
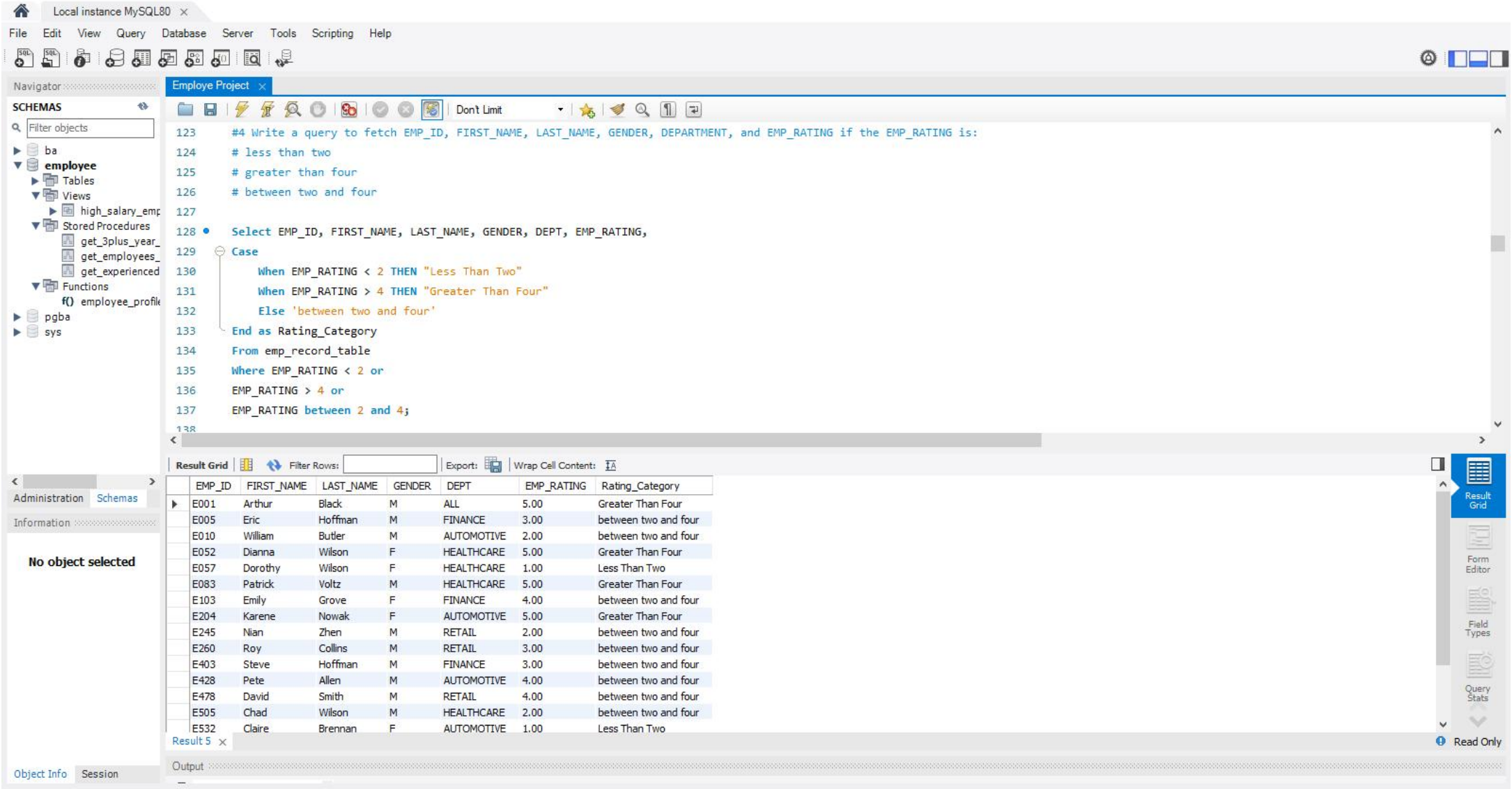
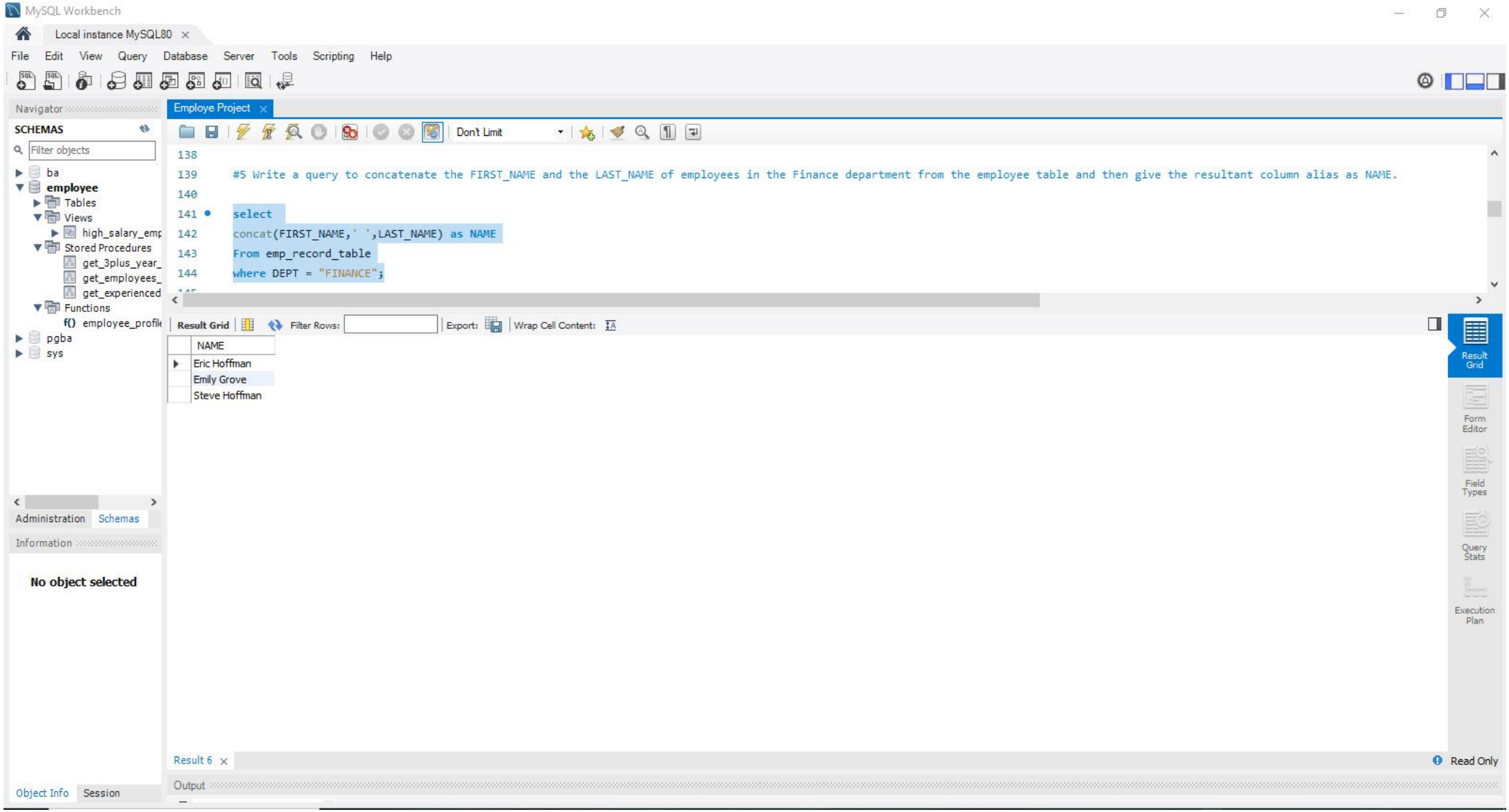
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project
Don't Limit
61
62 INSERT INTO emp_record_table
63 (EMP_ID, FIRST_NAME, LAST_NAME, GENDER, ROLE, DEPT, EXP, COUNTRY, CONTINENT, SALARY, EMP_RATING, MANAGER_ID, PROJ_ID)
64 VALUES
65 ('E001', 'Arthur', 'Black', 'M', 'PRESIDENT', 'ALL', 20, 'USA', 'NORTH AMERICA', 16500, 5, NULL, NULL),
66 ('E005', 'Eric', 'Hoffman', 'M', 'LEAD DATA SCIENTIST', 'FINANCE', 11, 'USA', 'NORTH AMERICA', 8500, 3, 'E103', 'P105'),
67 ('E010', 'William', 'Butler', 'M', 'LEAD DATA SCIENTIST', 'AUTOMOTIVE', 12, 'FRANCE', 'EUROPE', 9000, 2, 'E428', 'P204'),
68 ('E052', 'Dianna', 'Wilson', 'F', 'SENIOR DATA SCIENTIST', 'HEALTHCARE', 6, 'CANADA', 'NORTH AMERICA', 5500, 5, 'E083', 'P103'),
69 ('E057', 'Dorothy', 'Wilson', 'F', 'SENIOR DATA SCIENTIST', 'HEALTHCARE', 9, 'USA', 'NORTH AMERICA', 7700, 1, 'E083', 'P302'),
70 ('E083', 'Patrick', 'Voltz', 'M', 'MANAGER', 'HEALTHCARE', 15, 'USA', 'NORTH AMERICA', 9500, 5, 'E001', NULL),
71 ('E103', 'Emily', 'Grove', 'F', 'MANAGER', 'FINANCE', 14, 'CANADA', 'NORTH AMERICA', 10500, 4, 'E001', NULL),
72 ('E204', 'Karene', 'Nowak', 'F', 'SENIOR DATA SCIENTIST', 'AUTOMOTIVE', 8, 'GERMANY', 'EUROPE', 7500, 5, 'E428', 'P204'),
73 ('E245', 'Nian', 'Zhen', 'M', 'SENIOR DATA SCIENTIST', 'RETAIL', 6, 'CHINA', 'ASIA', 6500, 2, 'E583', 'P109'),
74 ('E260', 'Roy', 'Collins', 'M', 'SENIOR DATA SCIENTIST', 'RETAIL', 7, 'INDIA', 'ASIA', 7000, 3, 'E583', 'NA'),
75 ('E403', 'Steve', 'Hoffman', 'M', 'ASSOCIATE DATA SCIENTIST', 'FINANCE', 4, 'USA', 'NORTH AMERICA', 5000, 3, 'E103', 'P105'),
76 ('E428', 'Pete', 'Allen', 'M', 'MANAGER', 'AUTOMOTIVE', 14, 'GERMANY', 'EUROPE', 11000, 4, 'E001', NULL),
77 ('E478', 'David', 'Smith', 'M', 'ASSOCIATE DATA SCIENTIST', 'RETAIL', 3, 'COLOMBIA', 'SOUTH AMERICA', 4000, 4, 'E583', 'P109'),
78 ('E505', 'Chad', 'Wilson', 'M', 'ASSOCIATE DATA SCIENTIST', 'HEALTHCARE', 5, 'CANADA', 'NORTH AMERICA', 5000, 2, 'E083', 'P103'),
79 ('E532', 'Claire', 'Brennan', 'F', 'ASSOCIATE DATA SCIENTIST', 'AUTOMOTIVE', 3, 'GERMANY', 'EUROPE', 4300, 1, 'E428', 'P204'),
80 ('E583', 'Janet', 'Hale', 'F', 'MANAGER', 'RETAIL', 14, 'COLOMBIA', 'SOUTH AMERICA', 10000, 2, 'E001', NULL),
81 ('E612', 'Tracy', 'Norris', 'F', 'MANAGER', 'RETAIL', 13, 'INDIA', 'ASIA', 8500, 4, 'E001', NULL),
82 ('E620', 'Katrina', 'Allen', 'F', 'JUNIOR DATA SCIENTIST', 'RETAIL', 2, 'INDIA', 'ASIA', 3000, 1, 'E612', 'P406'),
83 ('E640', 'Jenifer', 'Jhones', 'F', 'JUNIOR DATA SCIENTIST', 'RETAIL', 1, 'COLOMBIA', 'SOUTH AMERICA', 2800, 4, 'E612', 'P406');
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME GENDER ROLE DEPT EXP COUNTRY CONTINENT SALARY EMP_RATING MANAGER_ID PROJ_ID
E001 Arthur Black M PRESIDENT ALL 20 USA NORTH AMERICA 16500.00 5.00 NULL NULL
E005 Eric Hoffman M LEAD DATA SCIENTIST FINANCE 11 USA NORTH AMERICA 8500.00 3.00 E103 P105
E010 William Butler M LEAD DATA SCIENTIST AUTOMOTIVE 12 FRANCE EUROPE 9000.00 2.00 E428 P204
E052 Dianna Wilson F SENIOR DATA SCIENTIST HEALTHCARE 6 CANADA NORTH AMERICA 5500.00 5.00 E083 P103
E057 Dorothy Wilson F SENIOR DATA SCIENTIST HEALTHCARE 9 USA NORTH AMERICA 7700.00 1.00 E083 P302
Result Grid
record_table 1
Apply Revert
Output

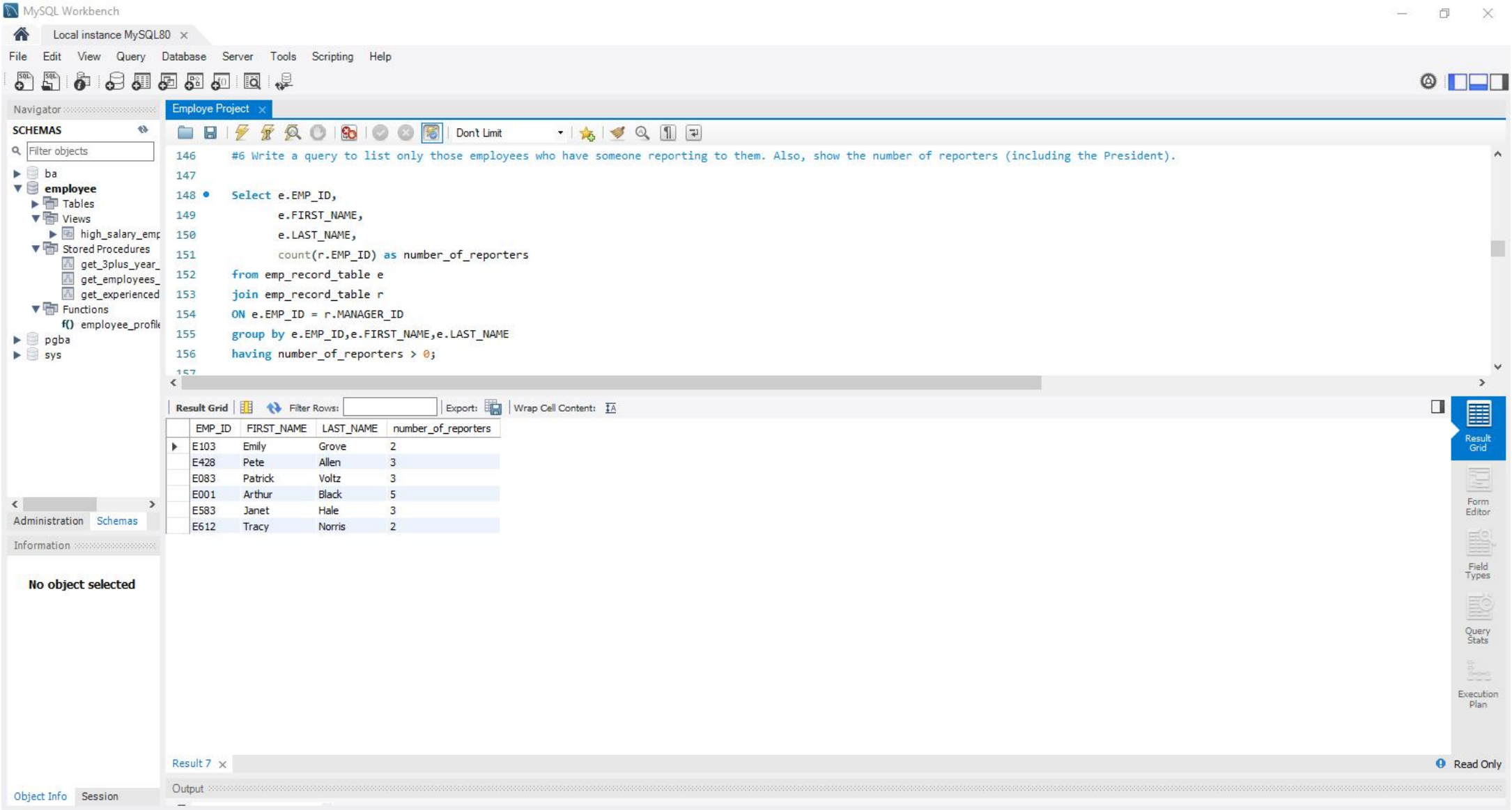

Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project
Don't Limit
85 select * from emp_record_table;
86
87 Insert into Proj_table
88 (PROJECT_ID, PROJ_NAME, DOMAIN, START_DATE, CLOSURE_DATE, DEV_QTR, STATUS)
89 Values
90 ('P103', 'Drug Discovery', 'HEALTHCARE', '2021-04-06', '2021-06-20', 'Q1', 'DONE'),
91 ('P105', 'Fraud Detection', 'FINANCE', '2021-04-11', '2021-06-25', 'Q1', 'DONE'),
92 ('P109', 'Market Basket Analysis', 'RETAIL', '2021-04-12', '2021-06-30', 'Q1', 'DELAYED'),
93 ('P204', 'Supply Chain Management', 'AUTOMOTIVE', '2021-07-15', '2021-09-28', 'Q2', 'WIP'),
94 ('P302', 'Early Detection of Lung Cancer', 'HEALTHCARE', '2021-10-08', '2021-12-18', 'Q3', 'YTS'),
95 ('P406', 'Customer Sentiment Analysis', 'RETAIL', '2021-07-09', '2021-09-24', 'Q2', 'WIP');
96
97 select * from Proj_table;
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
PROJECT_ID PROJ_Name DOMAIN START_DATE CLOSURE_DATE DEV_QTR STATUS
P103 Drug Discovery HEALTHCARE 2021-04-06 2021-06-20 Q1 DONE
P105 Fraud Detection FINANCE 2021-04-11 2021-06-25 Q1 DONE
P109 Market Basket Analysis RETAIL 2021-04-12 2021-06-30 Q1 DELAYED
P204 Supply Chain Management AUTOMOTIVE 2021-07-15 2021-09-28 Q2 WIP
P302 Early Detection of Lung Cancer HEALTHCARE 2021-10-08 2021-12-18 Q3 YTS
P406 Customer Sentiment Analysis RETAIL 2021-07-09 2021-09-24 Q2 WIP
NULL NULL NULL NULL NULL NULL NULL
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
Proj_table 2
Apply Revert
Output

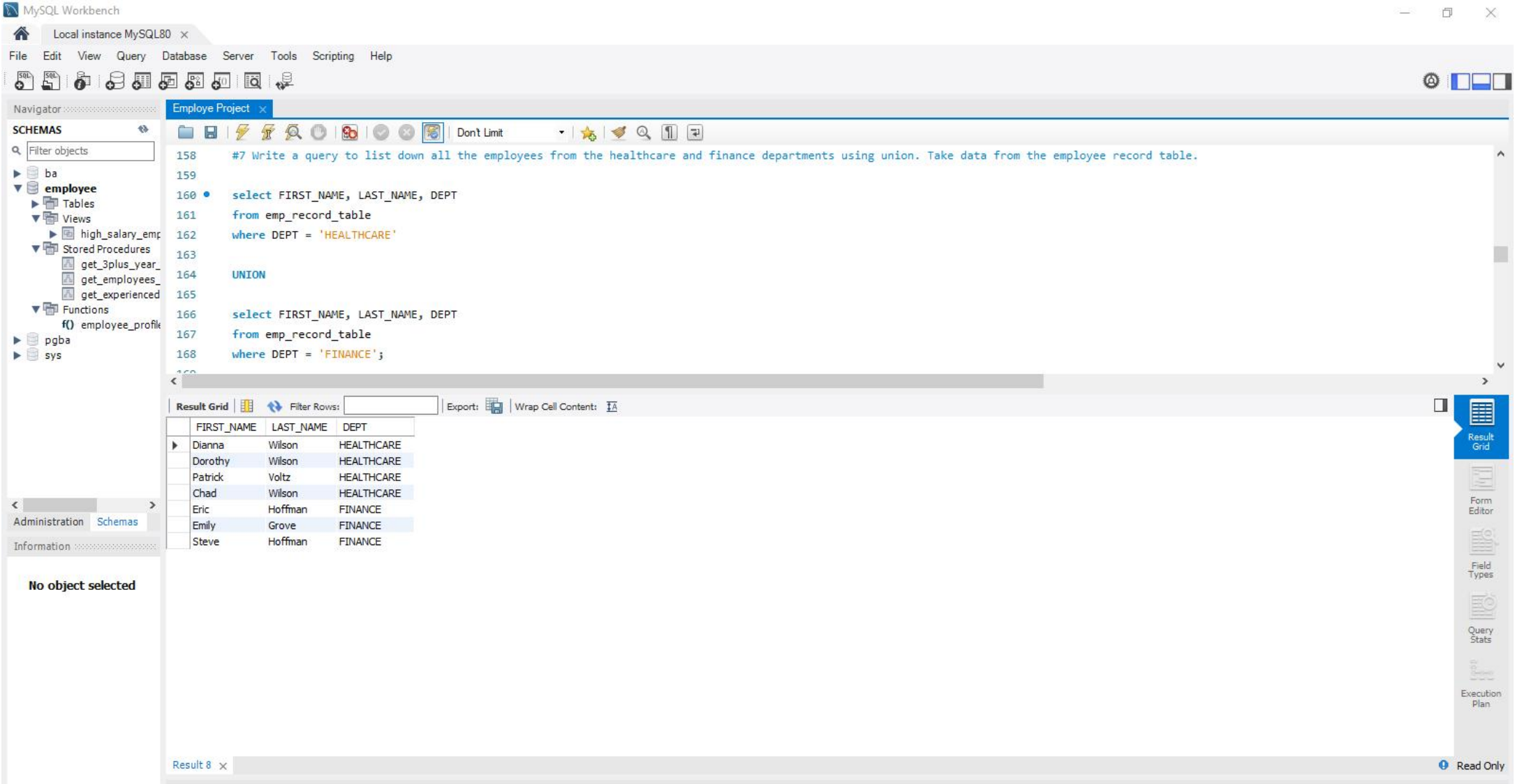

Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project
Don't Limit
99 Insert into Data_science_team
100 (EMP_ID, FIRST_NAME, LAST_NAME, GENDER, ROLE, DEPT, EXP, COUNTRY, CONTINENT)
101 values
102 ('E005', 'Eric', 'Hoffman', 'M', 'LEAD DATA SCIENTIST', 'FINANCE', 11, 'USA', 'NORTH AMERICA'),
103 ('E010', 'William', 'Butler', 'M', 'LEAD DATA SCIENTIST', 'AUTOMOTIVE', 12, 'FRANCE', 'EUROPE'),
104 ('E052', 'Dianna', 'Wilson', 'F', 'SENIOR DATA SCIENTIST', 'HEALTHCARE', 6, 'CANADA', 'NORTH AMERICA'),
105 ('E057', 'Dorothy', 'Wilson', 'F', 'SENIOR DATA SCIENTIST', 'HEALTHCARE', 9, 'USA', 'NORTH AMERICA'),
106 ('E204', 'Karene', 'Nowak', 'F', 'SENIOR DATA SCIENTIST', 'AUTOMOTIVE', 8, 'GERMANY', 'EUROPE'),
107 ('E245', 'Nian', 'Zhen', 'M', 'SENIOR DATA SCIENTIST', 'RETAIL', 6, 'CHINA', 'ASIA'),
108 ('E260', 'Roy', 'Collins', 'M', 'SENIOR DATA SCIENTIST', 'RETAIL', 7, 'INDIA', 'ASIA'),
109 ('E403', 'Steve', 'Hoffman', 'M', 'ASSOCIATE DATA SCIENTIST', 'FINANCE', 4, 'USA', 'NORTH AMERICA'),
110 ('E478', 'David', 'Smith', 'M', 'ASSOCIATE DATA SCIENTIST', 'RETAIL', 3, 'COLOMBIA', 'SOUTH AMERICA'),
111 ('E505', 'Chad', 'Wilson', 'M', 'ASSOCIATE DATA SCIENTIST', 'HEALTHCARE', 5, 'CANADA', 'NORTH AMERICA'),
112 ('E532', 'Claire', 'Brennan', 'F', 'ASSOCIATE DATA SCIENTIST', 'AUTOMOTIVE', 3, 'GERMANY', 'EUROPE'),
113 ('E620', 'Katrina', 'Allen', 'F', 'JUNIOR DATA SCIENTIST', 'RETAIL', 2, 'INDIA', 'ASIA'),
114 ('E640', 'Jenifer', 'Jhones', 'F', 'JUNIOR DATA SCIENTIST', 'RETAIL', 1, 'COLOMBIA', 'SOUTH AMERICA');
115
116 Select * from Data_science_team;
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME GENDER ROLE DEPT EXP COUNTRY CONTINENT
E005 Eric Hoffman M LEAD DATA SCIENTIST FINANCE 11 USA NORTH AMERICA
E010 William Butler M LEAD DATA SCIENTIST AUTOMOTIVE 12 FRANCE EUROPE
E052 Dianna Wilson F SENIOR DATA SCIENTIST HEALTHCARE 6 CANADA NORTH AMERICA
E057 Dorothy Wilson F SENIOR DATA SCIENTIST HEALTHCARE 9 USA NORTH AMERICA
E204 Karene Nowak F SENIOR DATA SCIENTIST AUTOMOTIVE 8 GERMANY EUROPE
E245 Nian Zhen M SENIOR DATA SCIENTIST RETAIL 6 CHINA ASIA
E260 Roy Collins M SENIOR DATA SCIENTIST RETAIL 7 INDIA ASIA
E403 Steve Hoffman M ASSOCIATE DATA SCIENTIST FINANCE 4 USA NORTH AMERICA
E478 David Smith M ASSOCIATE DATA SCIENTIST RETAIL 3 COLOMBIA SOUTH AMERICA
E505 Chad Wilson M ASSOCIATE DATA SCIENTIST HEALTHCARE 5 CANADA NORTH AMERICA
E532 Claire Brennan F ASSOCIATE DATA SCIENTIST AUTOMOTIVE 3 GERMANY EUROPE
Result Grid
Form Editor
Field Types
Data_science_team 3
Apply
Revert
Output

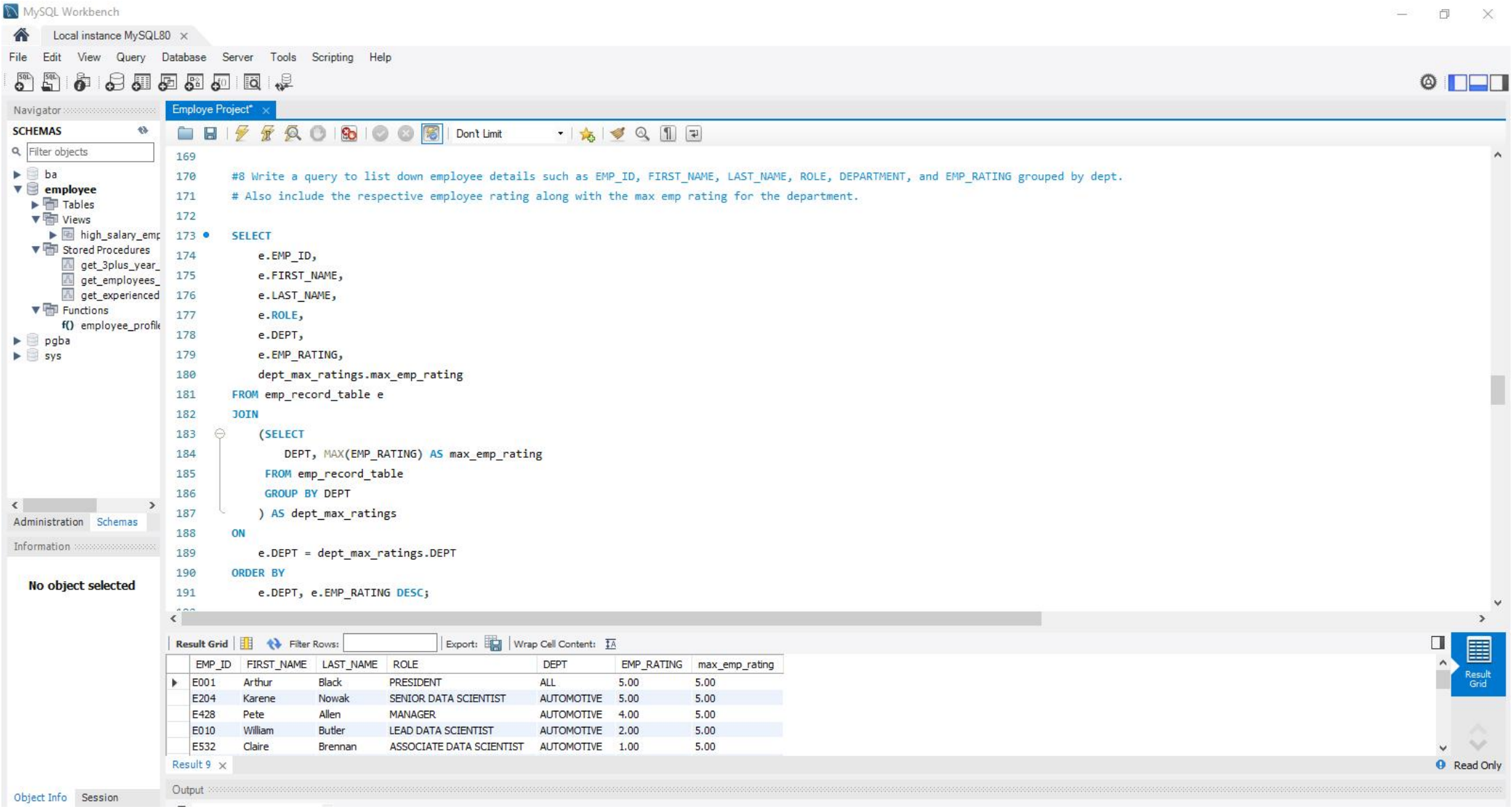

Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project
Don't Limit
117
118 #3 Write a query to fetch EMP_ID, FIRST_NAME, LAST_NAME, GENDER, and DEPARTMENT from the employee record table, and make a list of employees and details of their department.
119
120 Select EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT
121 From emp_record_table;
122
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME GENDER DEPT
E001 Arthur Black M ALL
E005 Eric Hoffman M FINANCE
E010 William Butler M AUTOMOTIVE
E052 Dianna Wilson F HEALTHCARE
E057 Dorothy Wilson F HEALTHCARE
E083 Patrick Voltz M HEALTHCARE
E103 Emily Grove F FINANCE
E204 Karene Nowak F AUTOMOTIVE
E245 Nian Zhen M RETAIL
E260 Roy Collins M RETAIL
E403 Steve Hoffman M FINANCE
E428 Pete Allen M AUTOMOTIVE
E478 David Smith M RETAIL
E505 Chad Wilson M HEALTHCARE
E532 Claire Brennan F AUTOMOTIVE
E583 Janet Hale F RETAIL
E612 Tracy Norris F RETAIL
E620 Katrina Allen F RETAIL
E640 Jenifer Jhones F RETAIL
NULL NULL NULL NULL NULL
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
emp_record_table 4
Apply Revert
Output

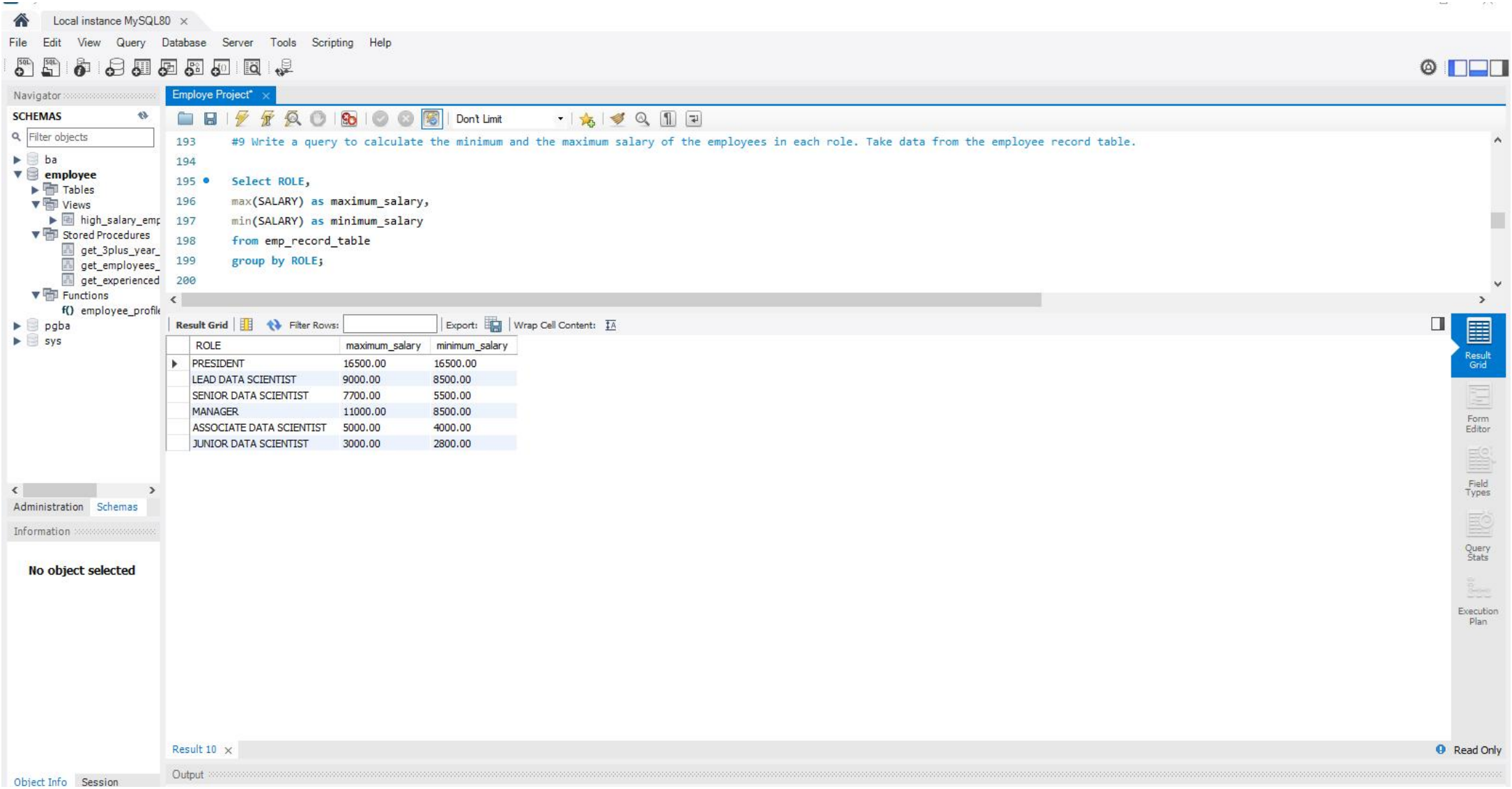

Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project
Don't Limit
#4 Write a query to fetch EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, and EMP_RATING if the EMP_RATING is:
less than two
greater than four
between two and four
Select EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATING,
Case
When EMP_RATING < 2 THEN "Less Than Two"
When EMP_RATING > 4 THEN "Greater Than Four"
Else 'between two and four'
End as Rating_Category
From emp_record_table
Where EMP_RATING < 2 or
EMP_RATING > 4 or
EMP_RATING between 2 and 4;
Result Grid Filter Rows: Export: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME GENDER DEPT EMP_RATING Rating_Category
E001 Arthur Black M ALL 5.00 Greater Than Four
E005 Eric Hoffman M FINANCE 3.00 between two and four
E010 William Butler M AUTOMOTIVE 2.00 between two and four
E052 Dianna Wilson F HEALTHCARE 5.00 Greater Than Four
E057 Dorothy Wilson F HEALTHCARE 1.00 Less Than Two
E083 Patrick Voltz M HEALTHCARE 5.00 Greater Than Four
E103 Emily Grove F FINANCE 4.00 between two and four
E204 Karene Nowak F AUTOMOTIVE 5.00 Greater Than Four
E245 Nian Zhen M RETAIL 2.00 between two and four
E260 Roy Collins M RETAIL 3.00 between two and four
E403 Steve Hoffman M FINANCE 3.00 between two and four
E428 Pete Allen M AUTOMOTIVE 4.00 between two and four
E478 David Smith M RETAIL 4.00 between two and four
E505 Chad Wilson M HEALTHCARE 2.00 between two and four
E532 Claire Brennan F AUTOMOTIVE 1.00 Less Than Two
Result 5
Result Grid
Form Editor
Field Types
Query Stats
Read Only
Output

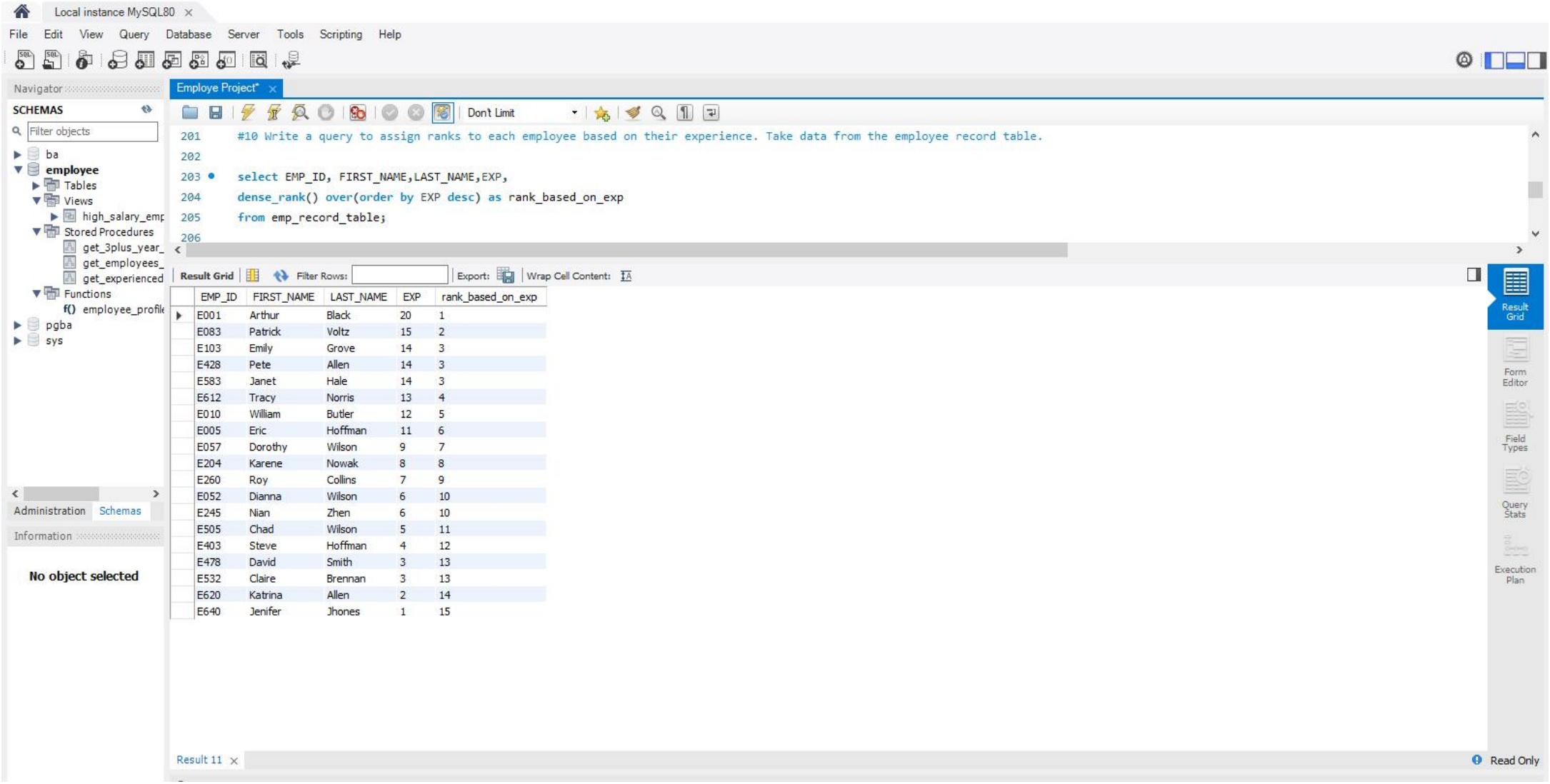

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project
Don't Limit
138
139 #5 Write a query to concatenate the FIRST_NAME and the LAST_NAME of employees in the Finance department from the employee table and then give the resultant column alias as NAME.
140
141 select
142 concat(FIRST_NAME,' ',LAST_NAME) as NAME
143 From emp_record_table
144 where DEPT = "FINANCE";
Result Grid Filter Rows: Export: Wrap Cell Content:
NAME
Eric Hoffman
Emily Grove
Steve Hoffman
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
Result 6
Read Only
Output

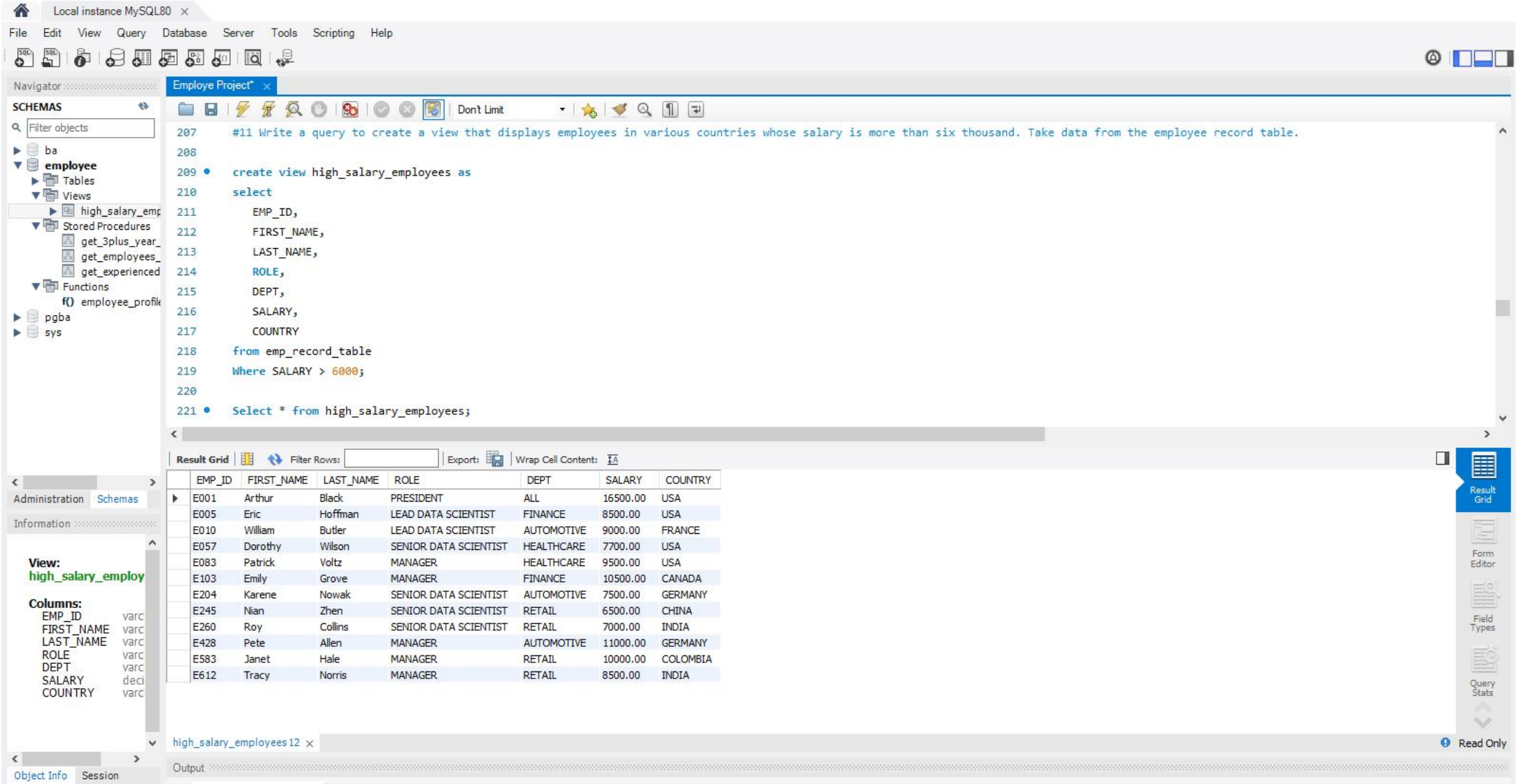

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project
Don't Limit
#6 Write a query to list only those employees who have someone reporting to them. Also, show the number of reporters (including the President).
Select e.EMP_ID,
e.FIRST_NAME,
e.LAST_NAME,
count(r.EMP_ID) as number_of_reporters
from emp_record_table e
join emp_record_table r
ON e.EMP_ID = r.MANAGER_ID
group by e.EMP_ID,e.FIRST_NAME,e.LAST_NAME
having number_of_reporters > 0;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME number_of_reporters
E103 Emily Grove 2
E428 Pete Allen 3
E083 Patrick Voltz 3
E001 Arthur Black 5
E583 Janet Hale 3
E612 Tracy Norris 2
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
Result 7
Read Only
Output

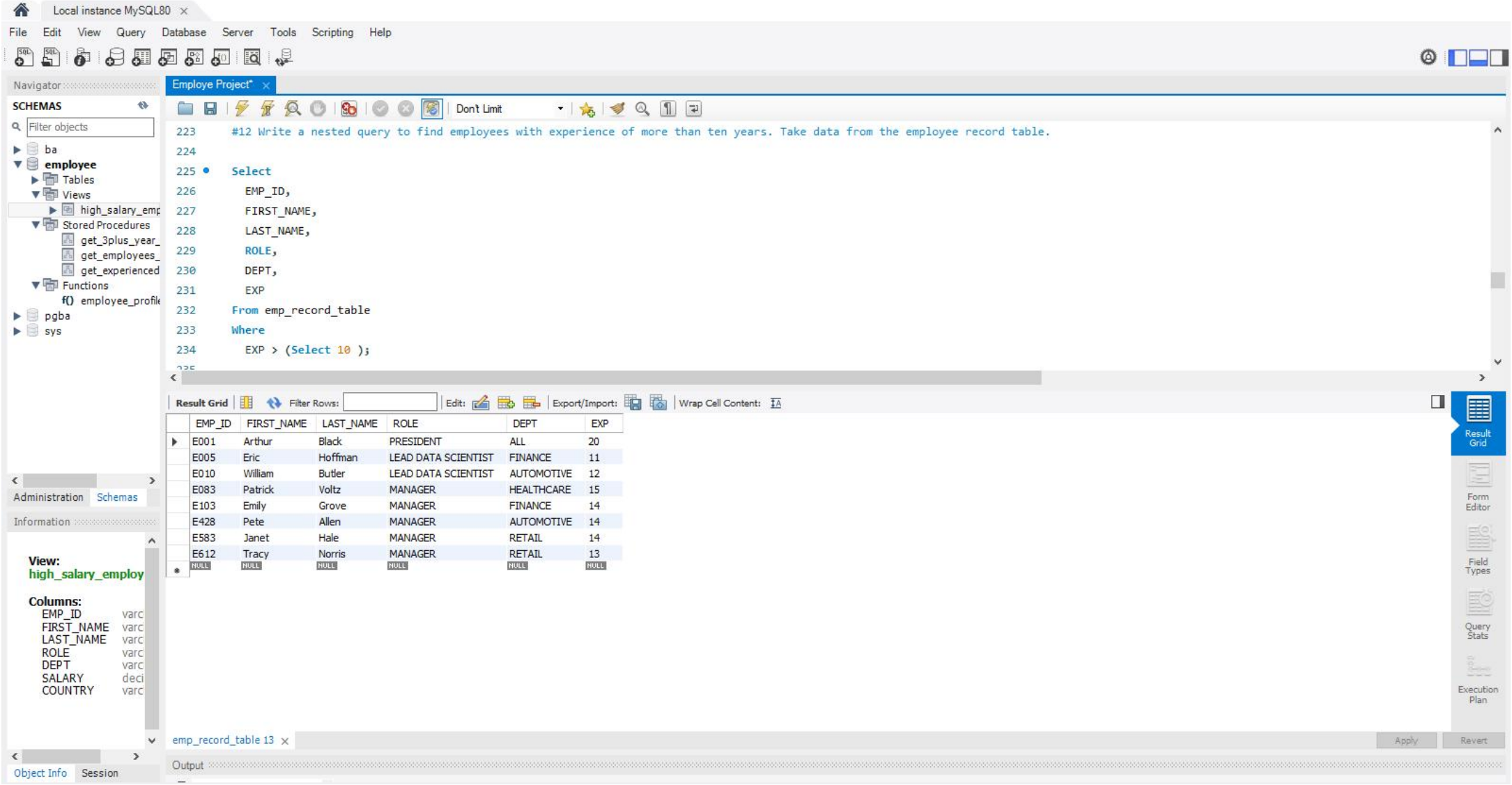

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Employe Project
Don't Limit
158 #7 Write a query to list down all the employees from the healthcare and finance departments using union. Take data from the employee record table.
159
160 select FIRST_NAME, LAST_NAME, DEPT
161 from emp_record_table
162 where DEPT = 'HEALTHCARE'
163
164 UNION
165
166 select FIRST_NAME, LAST_NAME, DEPT
167 from emp_record_table
168 where DEPT = 'FINANCE';
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
FIRST_NAME LAST_NAME DEPT
Dianna Wilson HEALTHCARE
Dorothy Wilson HEALTHCARE
Patrick Voltz HEALTHCARE
Chad Wilson HEALTHCARE
Eric Hoffman FINANCE
Emily Grove FINANCE
Steve Hoffman FINANCE
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
Result 8
Read Only

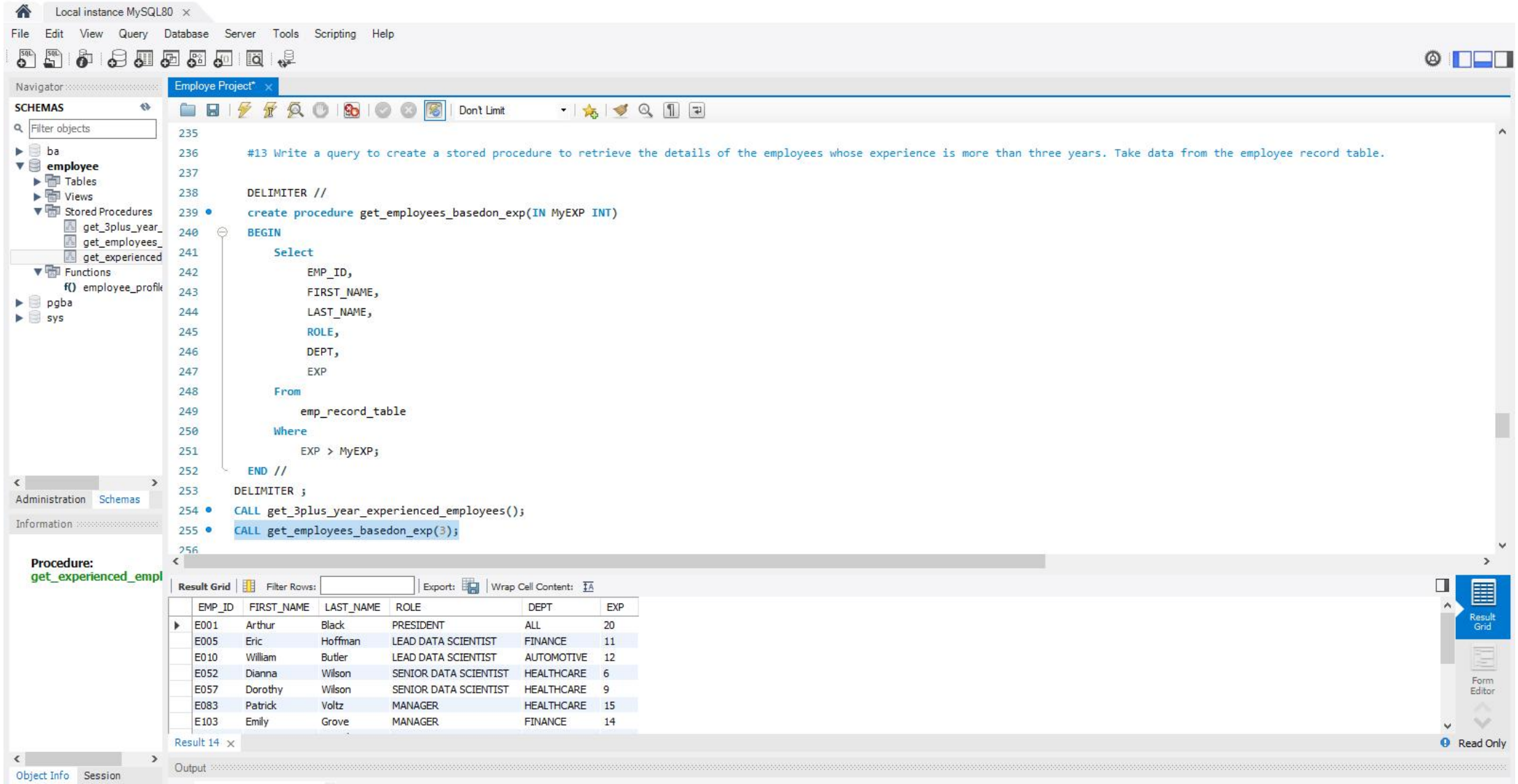

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project*
Don't Limit
#8 Write a query to list down employee details such as EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPARTMENT, and EMP_RATING grouped by dept.
Also include the respective employee rating along with the max emp rating for the department.
SELECT
e.EMP_ID,
e.FIRST_NAME,
e.LAST_NAME,
e.ROLE,
e.DEPT,
e.EMP_RATING,
dept_max_ratings.max_emp_rating
FROM emp_record_table e
JOIN
(SELECT
DEPT, MAX(EMP_RATING) AS max_emp_rating
FROM emp_record_table
GROUP BY DEPT
) AS dept_max_ratings
ON
e.DEPT = dept_max_ratings.DEPT
ORDER BY
e.DEPT, e.EMP_RATING DESC;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME ROLE DEPT EMP_RATING max_emp_rating
E001 Arthur Black PRESIDENT ALL 5.00 5.00
E204 Karene Nowak SENIOR DATA SCIENTIST AUTOMOTIVE 5.00 5.00
E428 Pete Allen MANAGER AUTOMOTIVE 4.00 5.00
E010 William Butler LEAD DATA SCIENTIST AUTOMOTIVE 2.00 5.00
E532 Claire Brennan ASSOCIATE DATA SCIENTIST AUTOMOTIVE 1.00 5.00
Result 9
Read Only
Output

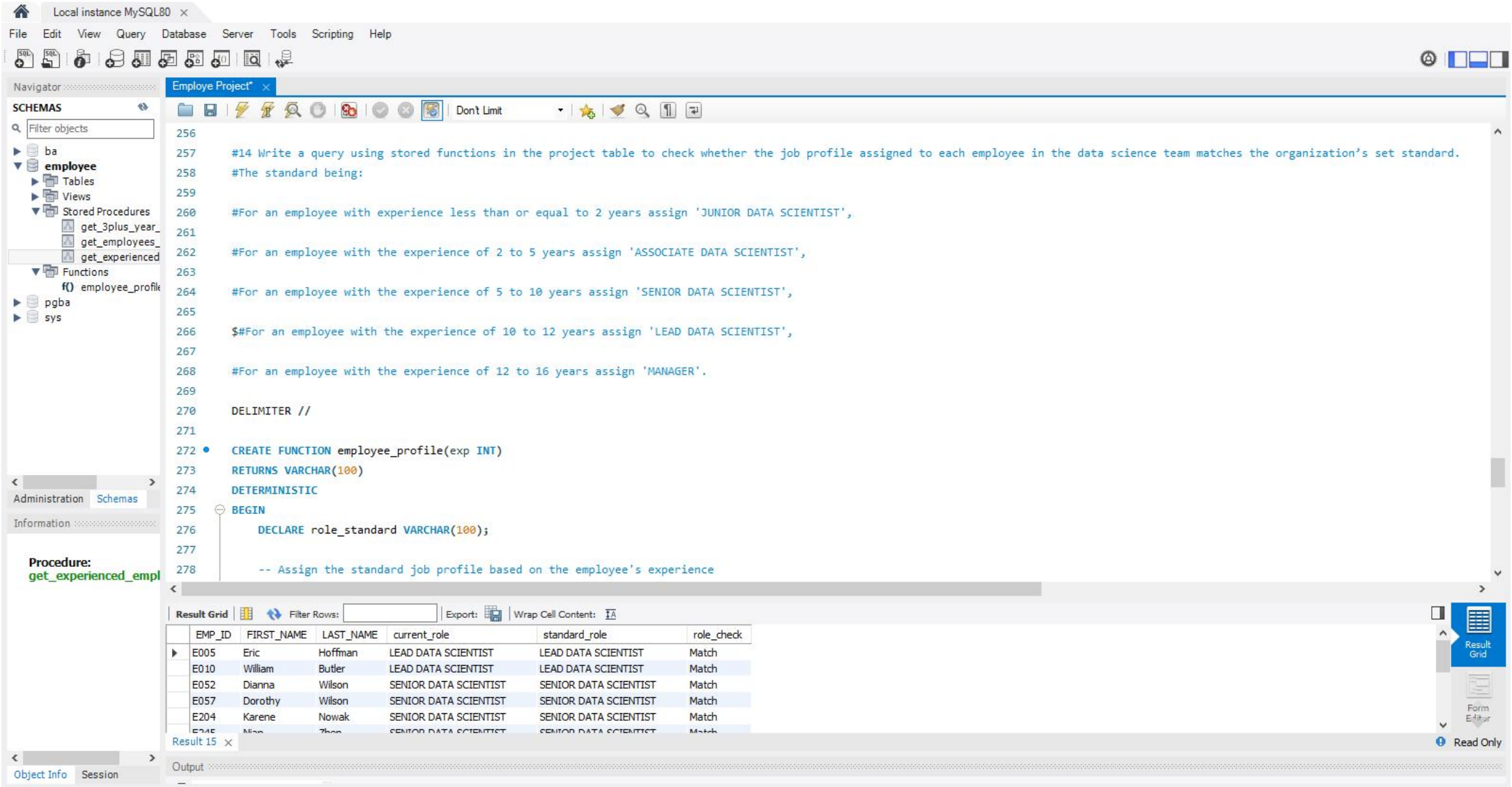

Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Object Info Session
Employe Project*
Don't Limit
193 #9 Write a query to calculate the minimum and the maximum salary of the employees in each role. Take data from the employee record table.
194
195 Select ROLE,
196 max(SALARY) as maximum_salary,
197 min(SALARY) as minimum_salary
198 from emp_record_table
199 group by ROLE;
200
Result Grid Filter Rows: Export: Wrap Cell Content:
ROLE maximum_salary minimum_salary
PRESIDENT 16500.00 16500.00
LEAD DATA SCIENTIST 9000.00 8500.00
SENIOR DATA SCIENTIST 7700.00 5500.00
MANAGER 11000.00 8500.00
ASSOCIATE DATA SCIENTIST 5000.00 4000.00
JUNIOR DATA SCIENTIST 3000.00 2800.00
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
Result 10
Read Only
Output

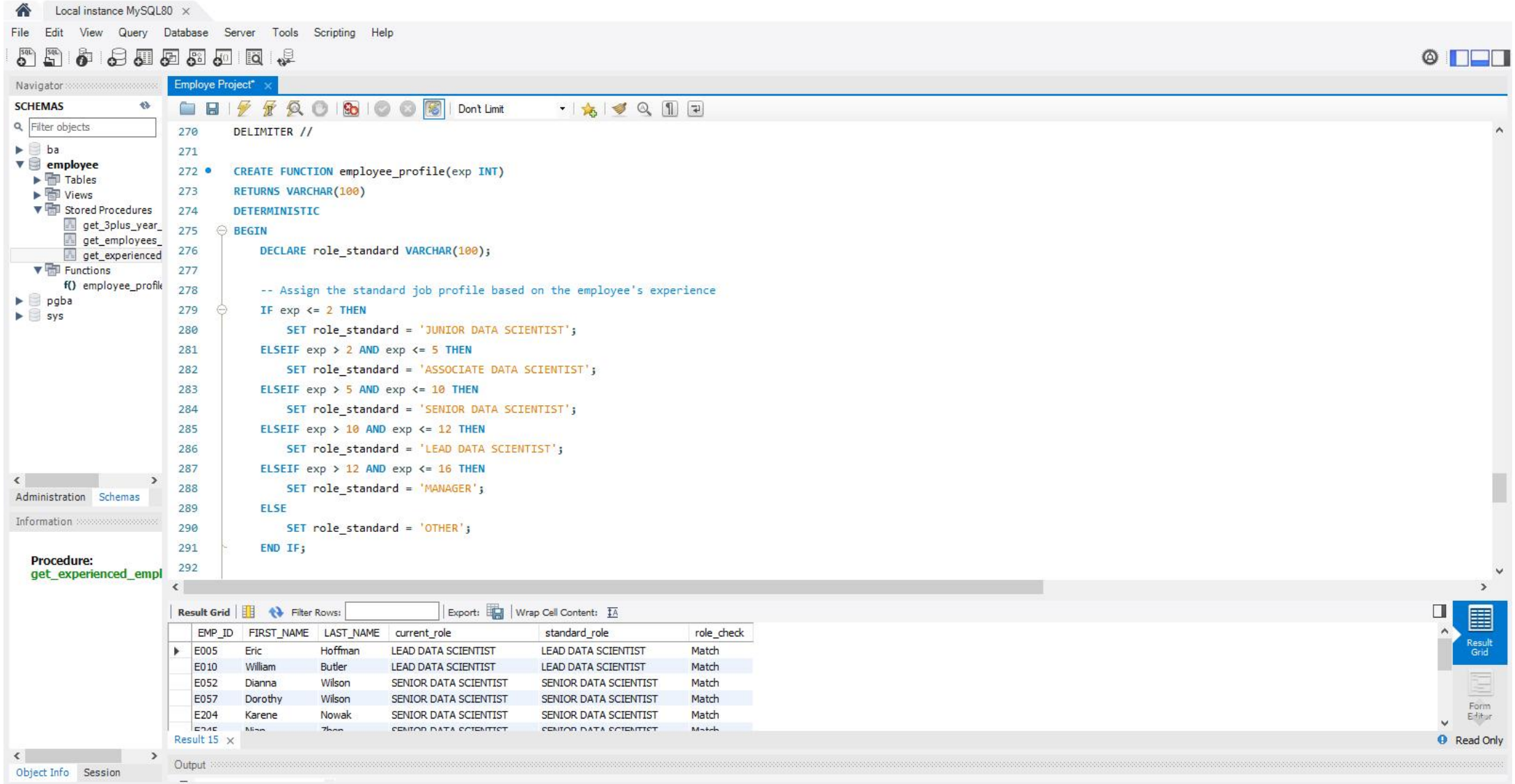

Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
No object selected
Employe Project*
Don't Limit
201 #10 Write a query to assign ranks to each employee based on their experience. Take data from the employee record table.
202
203 select EMP_ID, FIRST_NAME,LAST_NAME,EXP,
204 dense_rank() over(order by EXP desc) as rank_based_on_exp
205 from emp_record_table;
206
Result Grid Filter Rows: Export: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME EXP rank_based_on_exp
E001 Arthur Black 20 1
E083 Patrick Voltz 15 2
E103 Emily Grove 14 3
E428 Pete Allen 14 3
E583 Janet Hale 14 3
E612 Tracy Norris 13 4
E010 William Butler 12 5
E005 Eric Hoffman 11 6
E057 Dorothy Wilson 9 7
E204 Karene Nowak 8 8
E260 Roy Collins 7 9
E052 Dianna Wilson 6 10
E245 Nian Zhen 6 10
E505 Chad Wilson 5 11
E403 Steve Hoffman 4 12
E478 David Smith 3 13
E532 Claire Brennan 3 13
E620 Katrina Allen 2 14
E640 Jenifer Jhones 1 15
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
Result 11
Read Only

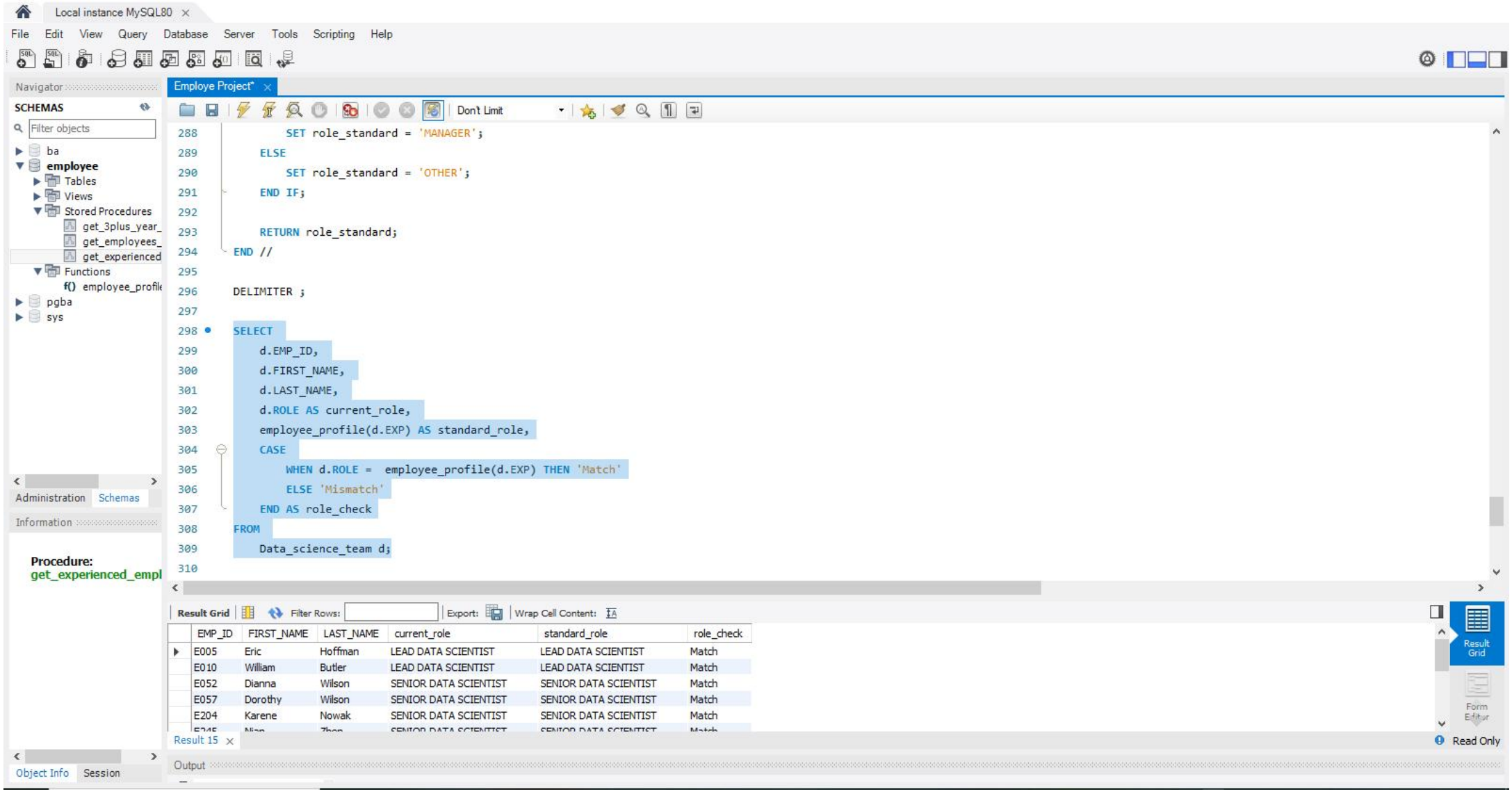

Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
View:
high_salary_employ
Columns:
EMP_ID varc
FIRST_NAME varc
LAST_NAME varc
ROLE varc
DEPT varc
SALARY deci
COUNTRY varc
Object Info Session
Employe Project*
Don't Limit
207 #11 Write a query to create a view that displays employees in various countries whose salary is more than six thousand. Take data from the employee record table.
208
209 create view high_salary_employees as
210 select
211 EMP_ID,
212 FIRST_NAME,
213 LAST_NAME,
214 ROLE,
215 DEPT,
216 SALARY,
217 COUNTRY
218 from emp_record_table
219 Where SALARY > 6000;
220
221 Select * from high_salary_employees;
Result Grid Filter Rows: Export: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME ROLE DEPT SALARY COUNTRY
E001 Arthur Black PRESIDENT ALL 16500.00 USA
E005 Eric Hoffman LEAD DATA SCIENTIST FINANCE 8500.00 USA
E010 William Butler LEAD DATA SCIENTIST AUTOMOTIVE 9000.00 FRANCE
E057 Dorothy Wilson SENIOR DATA SCIENTIST HEALTHCARE 7700.00 USA
E083 Patrick Voltz MANAGER HEALTHCARE 9500.00 USA
E103 Emily Grove MANAGER FINANCE 10500.00 CANADA
E204 Karene Nowak SENIOR DATA SCIENTIST AUTOMOTIVE 7500.00 GERMANY
E245 Nian Zhen SENIOR DATA SCIENTIST RETAIL 6500.00 CHINA
E260 Roy Collins SENIOR DATA SCIENTIST RETAIL 7000.00 INDIA
E428 Pete Allen MANAGER AUTOMOTIVE 11000.00 GERMANY
E583 Janet Hale MANAGER RETAIL 10000.00 COLOMBIA
E612 Tracy Norris MANAGER RETAIL 8500.00 INDIA
Result Grid
Form Editor
Field Types
Query Stats
high_salary_employees 12
Read Only
Output


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
high_salary_emp
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
View:
high_salary_employ
Columns:
EMP_ID varc
FIRST_NAME varc
LAST_NAME varc
ROLE varc
DEPT varc
SALARY deci
COUNTRY varc
Object Info Session
Employe Project*
Don't Limit
223 #12 Write a nested query to find employees with experience of more than ten years. Take data from the employee record table.
224
225 Select
226 EMP_ID,
227 FIRST_NAME,
228 LAST_NAME,
229 ROLE,
230 DEPT,
231 EXP
232 From emp_record_table
233 Where
234 EXP > (Select 10);
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME ROLE DEPT EXP
E001 Arthur Black PRESIDENT ALL 20
E005 Eric Hoffman LEAD DATA SCIENTIST FINANCE 11
E010 William Butler LEAD DATA SCIENTIST AUTOMOTIVE 12
E083 Patrick Voltz MANAGER HEALTHCARE 15
E103 Emily Grove MANAGER FINANCE 14
E428 Pete Allen MANAGER AUTOMOTIVE 14
E583 Janet Hale MANAGER RETAIL 14
E612 Tracy Norris MANAGER RETAIL 13
NULL NULL NULL NULL NULL NULL
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
emp_record_table 13
Apply Revert
Output


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
Procedure:
get_experienced_empl
Object Info Session
Employe Project*
Don't Limit
#13 Write a query to create a stored procedure to retrieve the details of the employees whose experience is more than three years. Take data from the employee record table.
DELIMITER //
create procedure get_employees_basedon_exp(IN MyEXP INT)
BEGIN
Select
EMP_ID,
FIRST_NAME,
LAST_NAME,
ROLE,
DEPT,
EXP
From
emp_record_table
Where
EXP > MyEXP;
END //
DELIMITER ;
CALL get_3plus_year_experienced_employees();
CALL get_employees_basedon_exp(3);
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME ROLE DEPT EXP
E001 Arthur Black PRESIDENT ALL 20
E005 Eric Hoffman LEAD DATA SCIENTIST FINANCE 11
E010 William Butler LEAD DATA SCIENTIST AUTOMOTIVE 12
E052 Dianna Wilson SENIOR DATA SCIENTIST HEALTHCARE 6
E057 Dorothy Wilson SENIOR DATA SCIENTIST HEALTHCARE 9
E083 Patrick Voltz MANAGER HEALTHCARE 15
E103 Emily Grove MANAGER FINANCE 14
Result 14
Result Grid
Form Editor
Read Only
Output


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
Procedure:
get_experienced_empl
Object Info Session
Employe Project*
Don't Limit
256
257 #14 Write a query using stored functions in the project table to check whether the job profile assigned to each employee in the data science team matches the organization's set standard.
258 #The standard being:
259
260 #For an employee with experience less than or equal to 2 years assign 'JUNIOR DATA SCIENTIST',
261
262 #For an employee with the experience of 2 to 5 years assign 'ASSOCIATE DATA SCIENTIST',
263
264 #For an employee with the experience of 5 to 10 years assign 'SENIOR DATA SCIENTIST',
265
266 $#For an employee with the experience of 10 to 12 years assign 'LEAD DATA SCIENTIST',
267
268 #For an employee with the experience of 12 to 16 years assign 'MANAGER'.
269
270 DELIMITER //
271
272 CREATE FUNCTION employee_profile(exp INT)
273 RETURNS VARCHAR(100)
274 DETERMINISTIC
275 BEGIN
276 DECLARE role_standard VARCHAR(100);
277
278 -- Assign the standard job profile based on the employee's experience
Result Grid Filter Rows: Export: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME current_role standard_role role_check
E005 Eric Hoffman LEAD DATA SCIENTIST LEAD DATA SCIENTIST Match
E010 William Butler LEAD DATA SCIENTIST LEAD DATA SCIENTIST Match
E052 Dianna Wilson SENIOR DATA SCIENTIST SENIOR DATA SCIENTIST Match
E057 Dorothy Wilson SENIOR DATA SCIENTIST SENIOR DATA SCIENTIST Match
E204 Karene Nowak SENIOR DATA SCIENTIST SENIOR DATA SCIENTIST Match
Result 15
Result Grid
Form Editor
Read Only
Output


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
Procedure:
get_experienced_empl
Object Info Session
Employe Project*
Don't Limit
270 DELIMITER //
271
272 CREATE FUNCTION employee_profile(exp INT)
273 RETURNS VARCHAR(100)
274 DETERMINISTIC
275 BEGIN
276 DECLARE role_standard VARCHAR(100);
277
278 -- Assign the standard job profile based on the employee's experience
279 IF exp <= 2 THEN
280 SET role_standard = 'JUNIOR DATA SCIENTIST';
281 ELSEIF exp > 2 AND exp <= 5 THEN
282 SET role_standard = 'ASSOCIATE DATA SCIENTIST';
283 ELSEIF exp > 5 AND exp <= 10 THEN
284 SET role_standard = 'SENIOR DATA SCIENTIST';
285 ELSEIF exp > 10 AND exp <= 12 THEN
286 SET role_standard = 'LEAD DATA SCIENTIST';
287 ELSEIF exp > 12 AND exp <= 16 THEN
288 SET role_standard = 'MANAGER';
289 ELSE
290 SET role_standard = 'OTHER';
291 END IF;
292
Result Grid Filter Rows: Export: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME current_role standard_role role_check
E005 Eric Hoffman LEAD DATA SCIENTIST LEAD DATA SCIENTIST Match
E010 William Butler LEAD DATA SCIENTIST LEAD DATA SCIENTIST Match
E052 Dianna Wilson SENIOR DATA SCIENTIST SENIOR DATA SCIENTIST Match
E057 Dorothy Wilson SENIOR DATA SCIENTIST SENIOR DATA SCIENTIST Match
E204 Karene Nowak SENIOR DATA SCIENTIST SENIOR DATA SCIENTIST Match
Result 15
Result Grid
Form Editor
Read Only
Output


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
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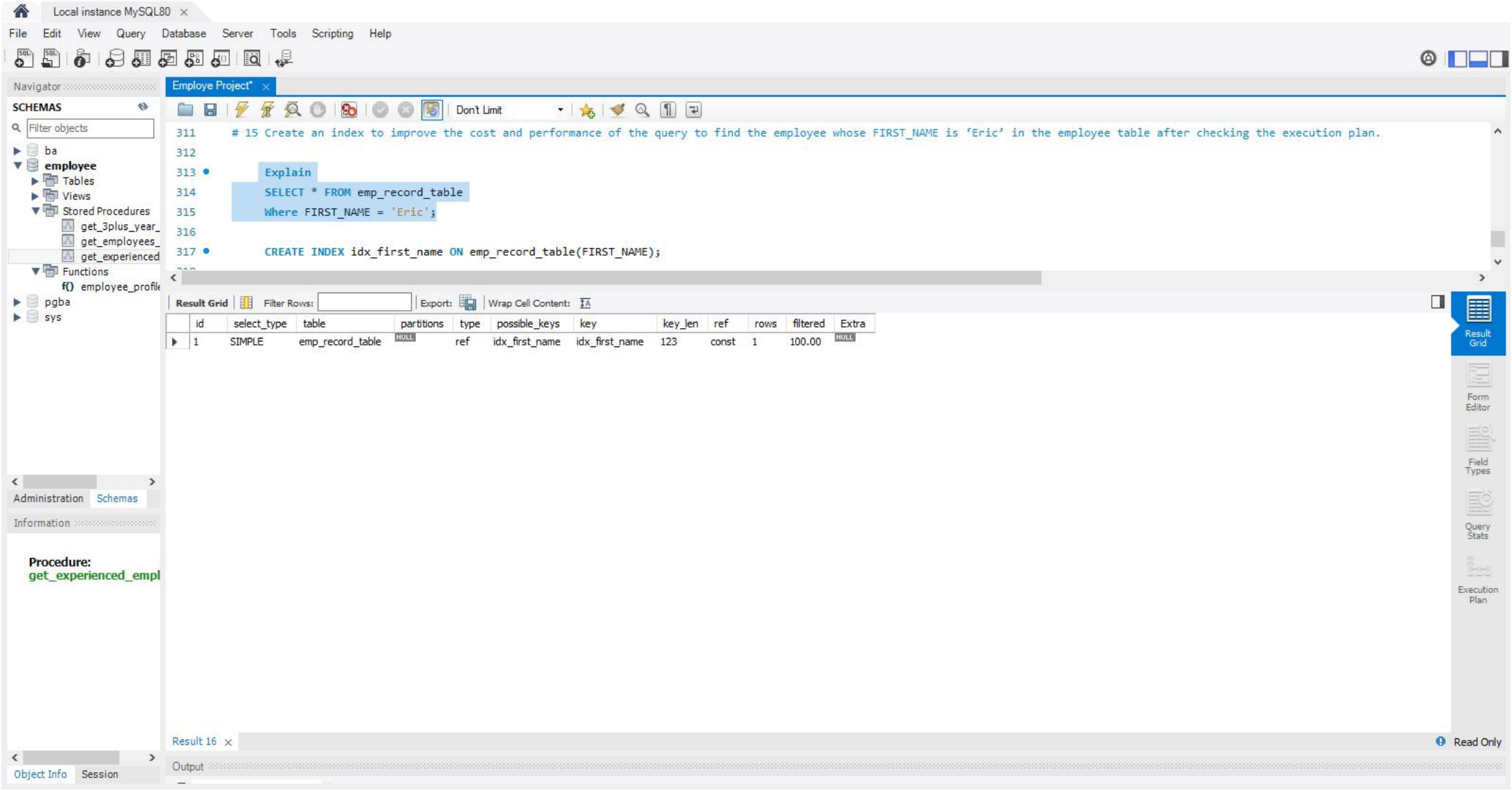
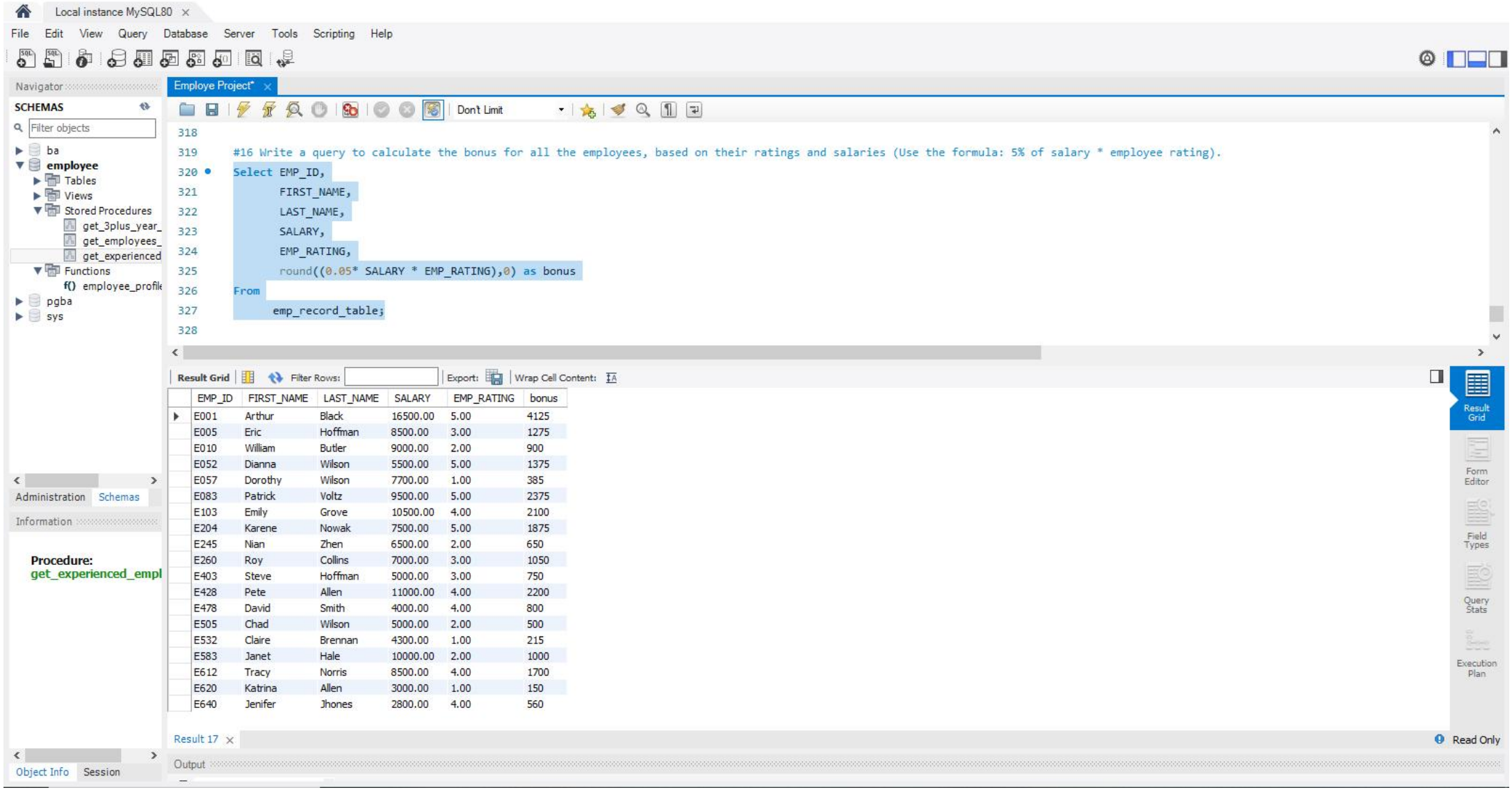
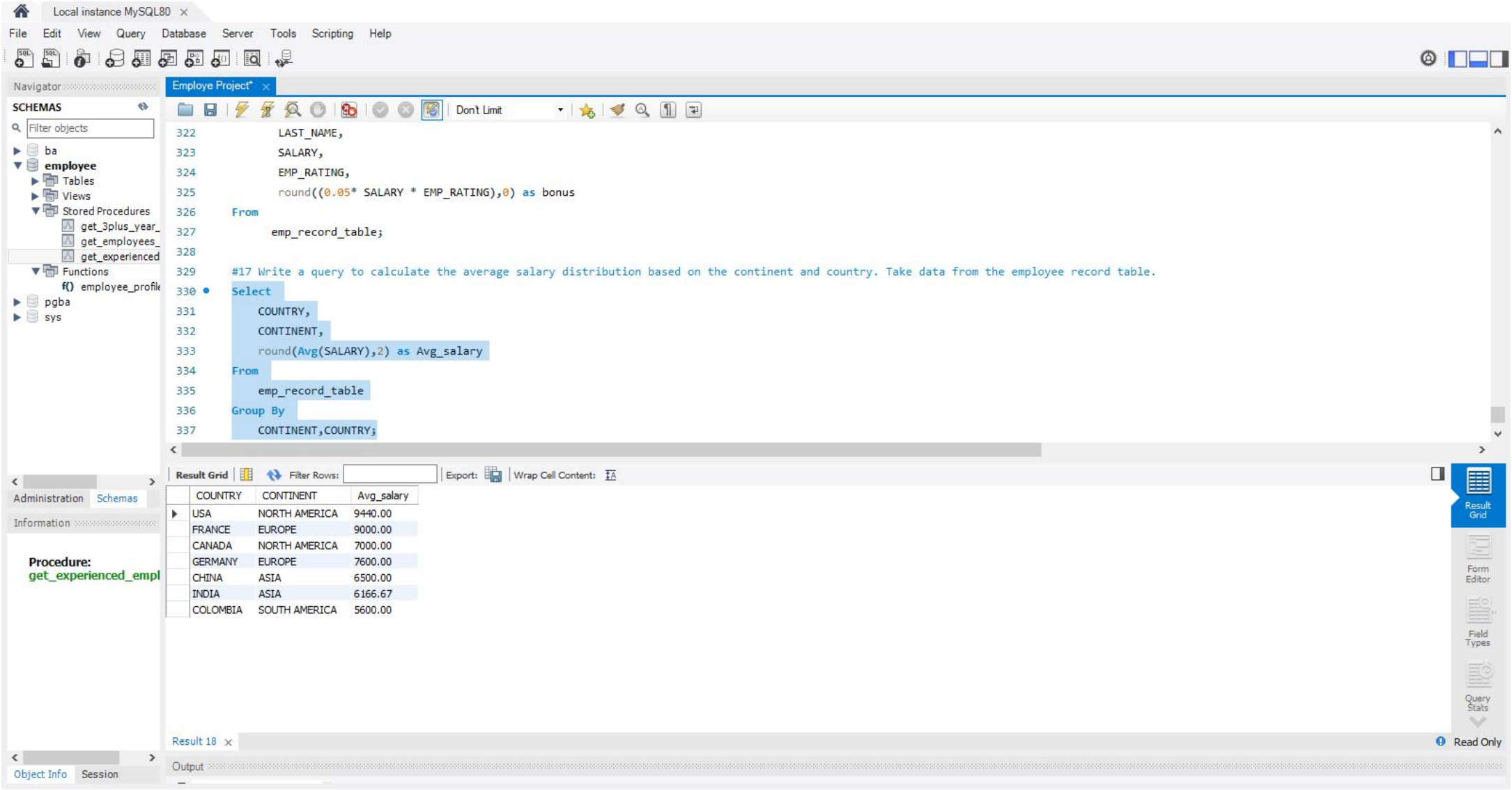
employee
Tables
Views
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
Procedure:
get_experienced_empl
Object Info Session
Employe Project*
Don't Limit
288 SET role_standard = 'MANAGER';
289 ELSE
290 SET role_standard = 'OTHER';
291 END IF;
292
293 RETURN role_standard;
294 END //
295
296 DELIMITER ;
297
298 SELECT
299 d.EMP_ID,
300 d.FIRST_NAME,
301 d.LAST_NAME,
302 d.ROLE AS current_role,
303 employee_profile(d.EXP) AS standard_role,
304 CASE
305 WHEN d.ROLE = employee_profile(d.EXP) THEN 'Match'
306 ELSE 'Mismatch'
307 END AS role_check
308 FROM
309 Data_science_team d;
310
Result Grid Filter Rows: Export: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME current_role standard_role role_check
E005 Eric Hoffman LEAD DATA SCIENTIST LEAD DATA SCIENTIST Match
E010 William Butler LEAD DATA SCIENTIST LEAD DATA SCIENTIST Match
E052 Dianna Wilson SENIOR DATA SCIENTIST SENIOR DATA SCIENTIST Match
E057 Dorothy Wilson SENIOR DATA SCIENTIST SENIOR DATA SCIENTIST Match
E204 Karene Nowak SENIOR DATA SCIENTIST SENIOR DATA SCIENTIST Match
Result 15
Result Grid
Form Editor
Read Only
Output


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
Procedure:
get_experienced_empl
Object Info Session
Employe Project*
Don't Limit
311 # 15 Create an index to improve the cost and performance of the query to find the employee whose FIRST_NAME is 'Eric' in the employee table after checking the execution plan.
312
313 Explain
314 SELECT * FROM emp_record_table
315 Where FIRST_NAME = 'Eric';
316
317 CREATE INDEX idx_first_name ON emp_record_table(FIRST_NAME);
Result Grid Filter Rows: Export: Wrap Cell Content:
id select_type table partitions type possible_keys key key_len ref rows filtered Extra
1 SIMPLE emp_record_table NULL ref idx_first_name idx_first_name 123 const 1 100.00 NULL
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
Result 16
Read Only
Output


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
employee_profile
pgba
sys
Administration Schemas
Information
Procedure:
get_experienced_empl
Object Info Session
Employe Project*
Don't Limit
318
319 #16 Write a query to calculate the bonus for all the employees, based on their ratings and salaries (Use the formula: 5% of salary * employee rating).
320 Select EMP_ID,
321 FIRST_NAME,
322 LAST_NAME,
323 SALARY,
324 EMP_RATING,
325 round((0.05* SALARY * EMP_RATING),0) as bonus
326 From
327 emp_record_table;
328
Result Grid Filter Rows: Export: Wrap Cell Content:
EMP_ID FIRST_NAME LAST_NAME SALARY EMP_RATING bonus
E001 Arthur Black 16500.00 5.00 4125
E005 Eric Hoffman 8500.00 3.00 1275
E010 William Butler 9000.00 2.00 900
E052 Dianna Wilson 5500.00 5.00 1375
E057 Dorothy Wilson 7700.00 1.00 385
E083 Patrick Voltz 9500.00 5.00 2375
E103 Emily Grove 10500.00 4.00 2100
E204 Karene Nowak 7500.00 5.00 1875
E245 Nian Zhen 6500.00 2.00 650
E260 Roy Collins 7000.00 3.00 1050
E403 Steve Hoffman 5000.00 3.00 750
E428 Pete Allen 11000.00 4.00 2200
E478 David Smith 4000.00 4.00 800
E505 Chad Wilson 5000.00 2.00 500
E532 Claire Brennan 4300.00 1.00 215
E583 Janet Hale 10000.00 2.00 1000
E612 Tracy Norris 8500.00 4.00 1700
E620 Katrina Allen 3000.00 1.00 150
E640 Jenifer Jhones 2800.00 4.00 560
Result 17
Read Only
Output
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan


Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ba
employee
Tables
Views
Stored Procedures
get_3plus_year_
get_employees_
get_experienced
Functions
f() employee_profile
pgba
sys
Administration Schemas
Information
Procedure:
get_experienced_empl
Object Info Session
Employe Project*
Don't Limit
LAST_NAME,
SALARY,
EMP_RATING,
round((0.05* SALARY * EMP_RATING),0) as bonus
From
emp_record_table;
#17 Write a query to calculate the average salary distribution based on the continent and country. Take data from the employee record table.
Select
COUNTRY,
CONTINENT,
round(Avg(SALARY),2) as Avg_salary
From
emp_record_table
Group By
CONTINENT,COUNTRY;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
COUNTRY CONTINENT Avg_salary
USA NORTH AMERICA 9440.00
FRANCE EUROPE 9000.00
CANADA NORTH AMERICA 7000.00
GERMANY EUROPE 7600.00
CHINA ASIA 6500.00
INDIA ASIA 6166.67
COLOMBIA SOUTH AMERICA 5600.00
Result Grid
Form Editor
Field Types
Query Stats
Result 18
Read Only
Output