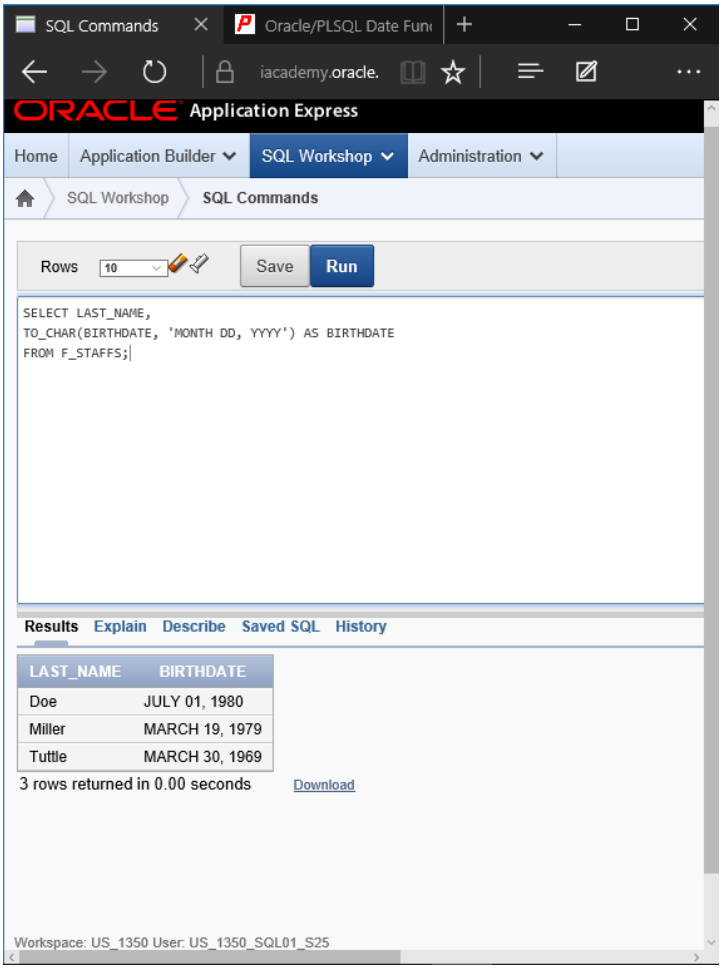
ORACLE ACADEMY

Section 2 Lesson 1: Conversion Functions

Try It / Solve It

In each of the following exercises, feel free to use labels for the converted column to make the output more readable.

1. List the last names and birthdays of Global Fast Food Employees. Convert the birth dates to character data in the Month DD, YYYY format. Suppress any leading zeros.



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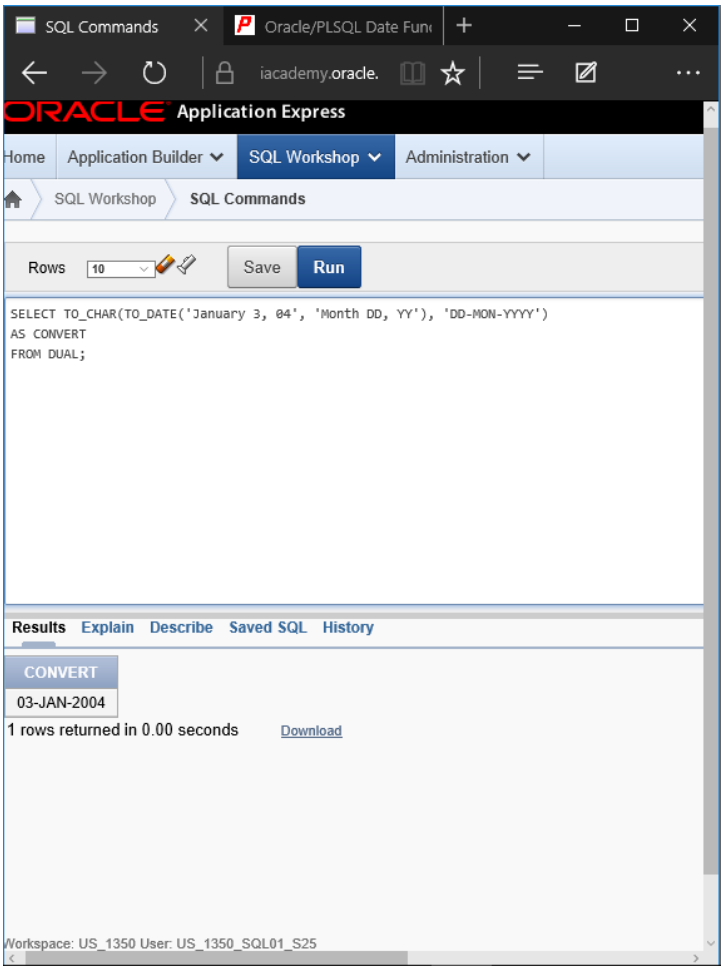
2. Convert January 3, 04, to the default date format 03-JAN-2004.



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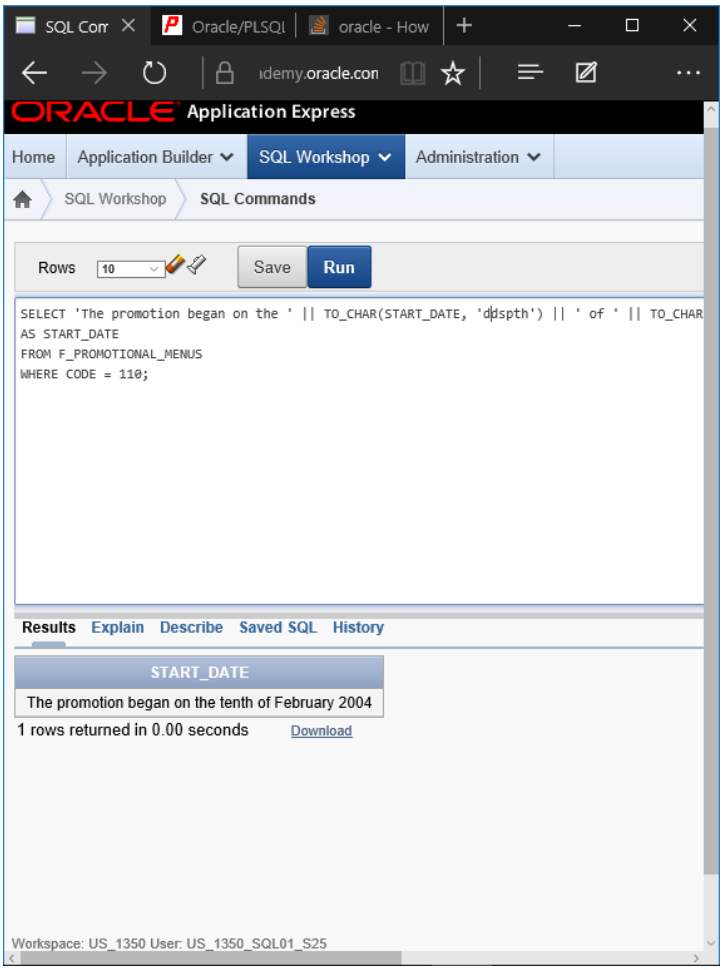
3. Format a query from the Global Fast Foods f_promotional_menus table to print out the start_date of promotional code 110 as: The promotion began on the tenth of February 2004.



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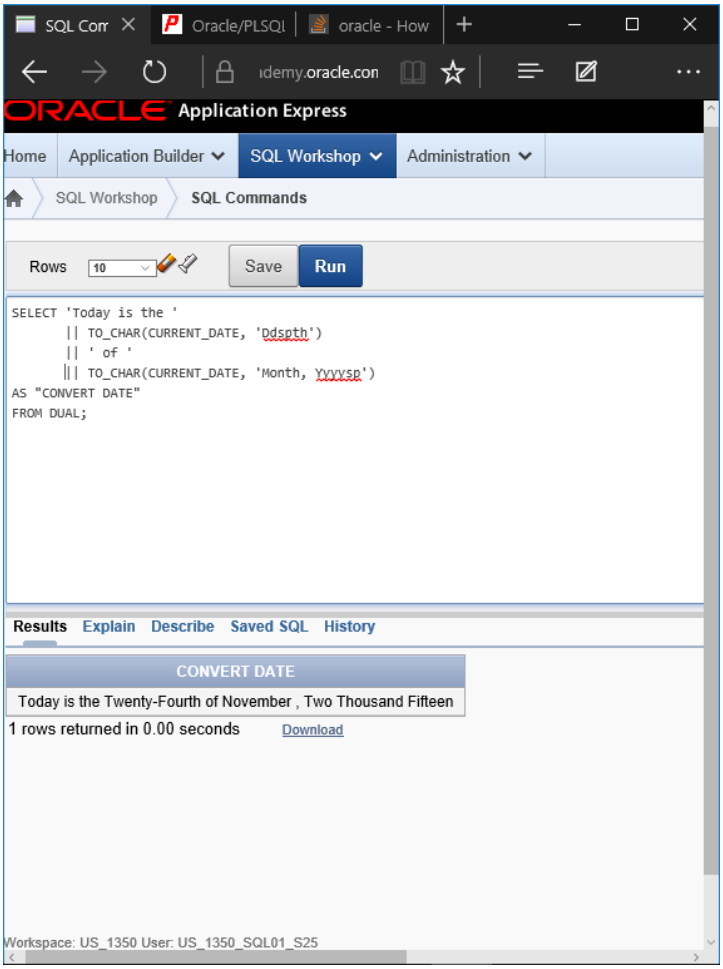
4. Convert today's date to a format such as: "Today is the Twentieth of March, Two Thousand Four"



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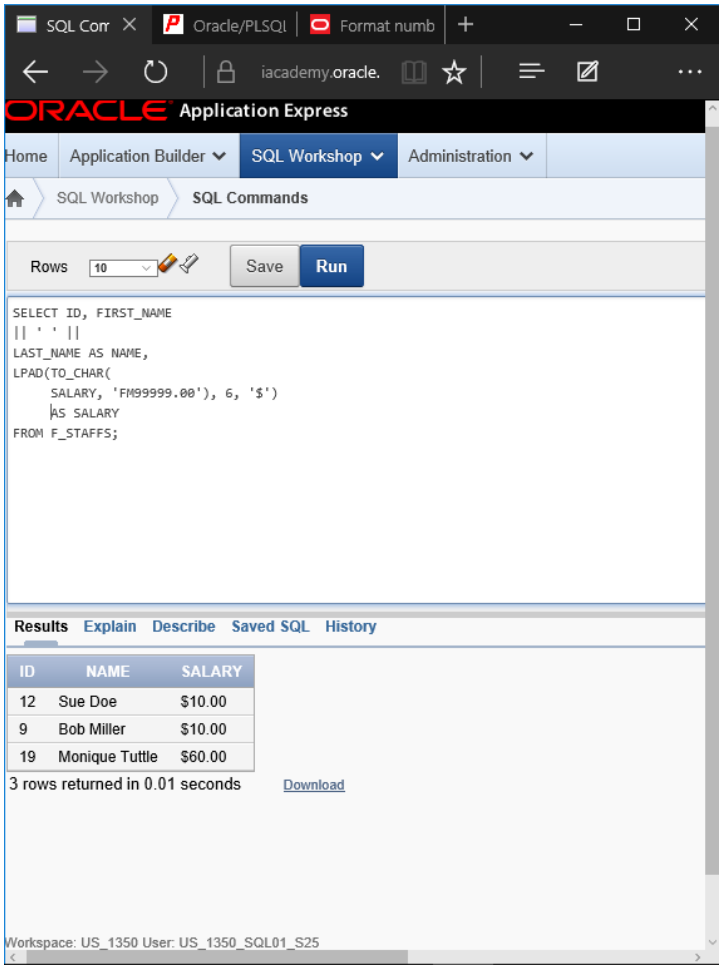
5. List the ID, name, and salary for all Global Fast Foods employees. Display salary with a $ sign and two decimal places.



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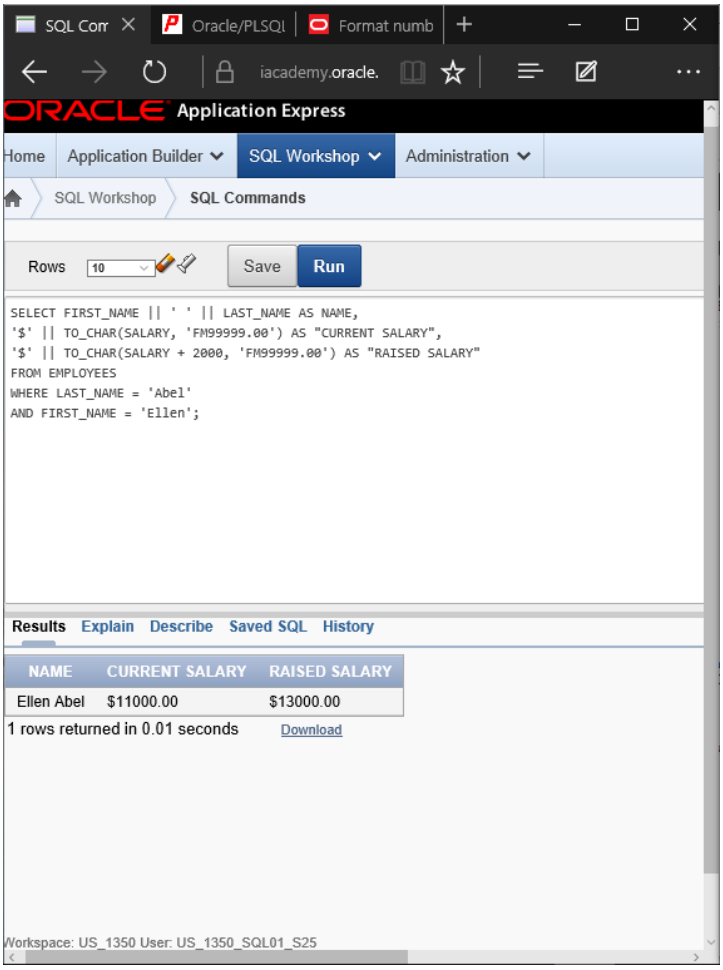
6. Ellen Abel is an employee who has received a $2,000 raise. Display her first name and last name, her current salary, and her new salary. Display both salaries with a $ and two decimal places. Label her new salary column AS New Salary.



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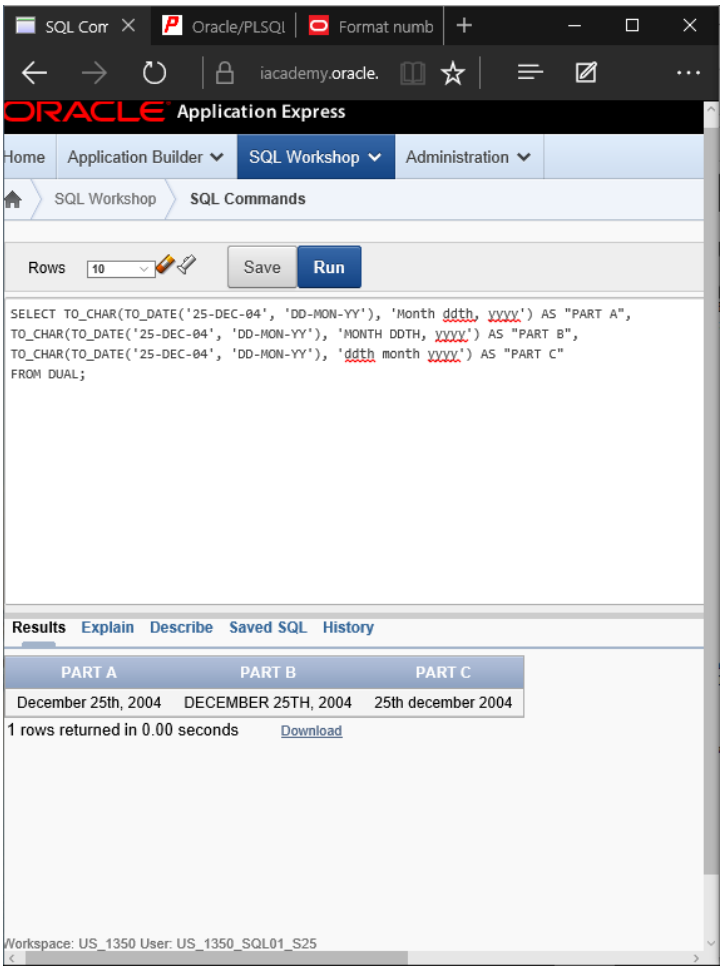
7. On what day of the week and date did Global Fast Foods' promotional code 110 Valentine's Special begin? Tuesday, February 10, 2004.

8. Create one query that will convert 25-DEC-04 into each of the following (you will have to convert 25-DEC-04 to a date and then to character data):

   December 25th, 2004
   DECEMBER 25TH, 2004
   25th december, 2004



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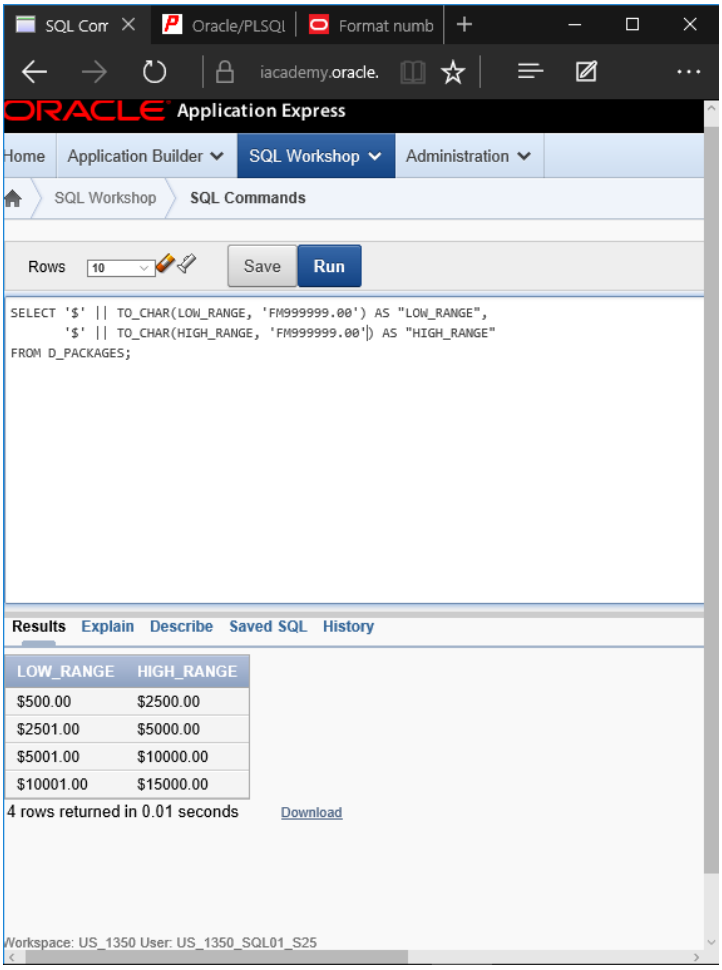
9. Create a query that will format the DJs on Demand d_packages columns, low-range and high-range package costs, in the format $2500.00.



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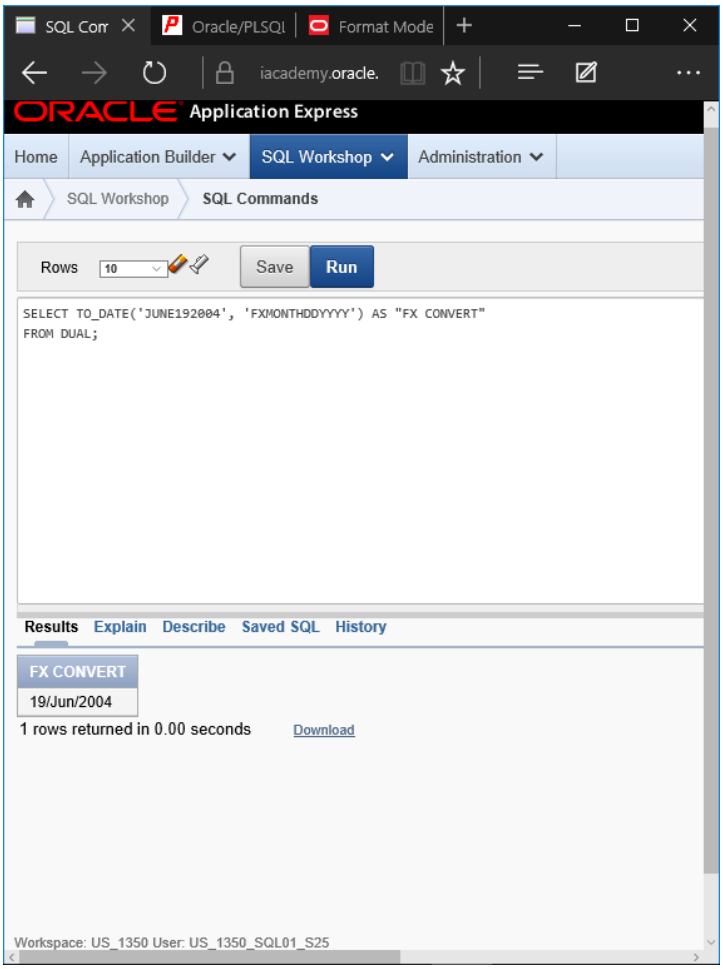
10. Convert JUNE192004 to a date using the fx format model.



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11. What is the distinction between implicit and explicit datatype conversion? Give an example of each. Implicit conversion occurs when the SQL server casts differing datatypes according to the rules of datatype precedence. Ex. A: the GETDATE function implicitly converts to style 0. Explicit conversion uses the CAST and CONVERT functions to perform datatype conversion. Ex. B: Given that the value '10' is an INT variable type, CAST(10 AS DECIMAL (5,2)) converts the INT variable type into DECIMAL.

12. Why is it important from a business perspective to have datatype conversions?

Datatype conversions allow for easier readability and meaningful display of data. It can also be used to counter against insufficient precision due to rounding errors.

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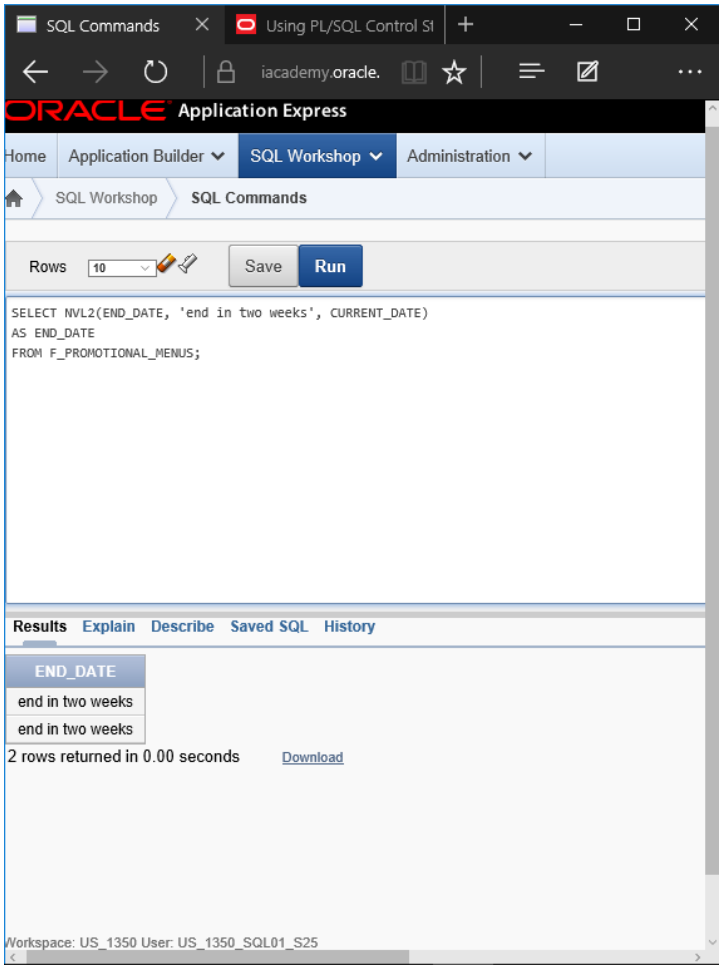
Section 2 Lesson 2: NULL Functions

Try It / Solve It

Use aliases to make the output more readable.

1. Create a report that shows the Global Fast Foods promotional name, start date, and end date from the f_promotional_menus table. If there is an end date, temporarily replace it with “end in two weeks.” If there is no end date, replace it with today’s date.



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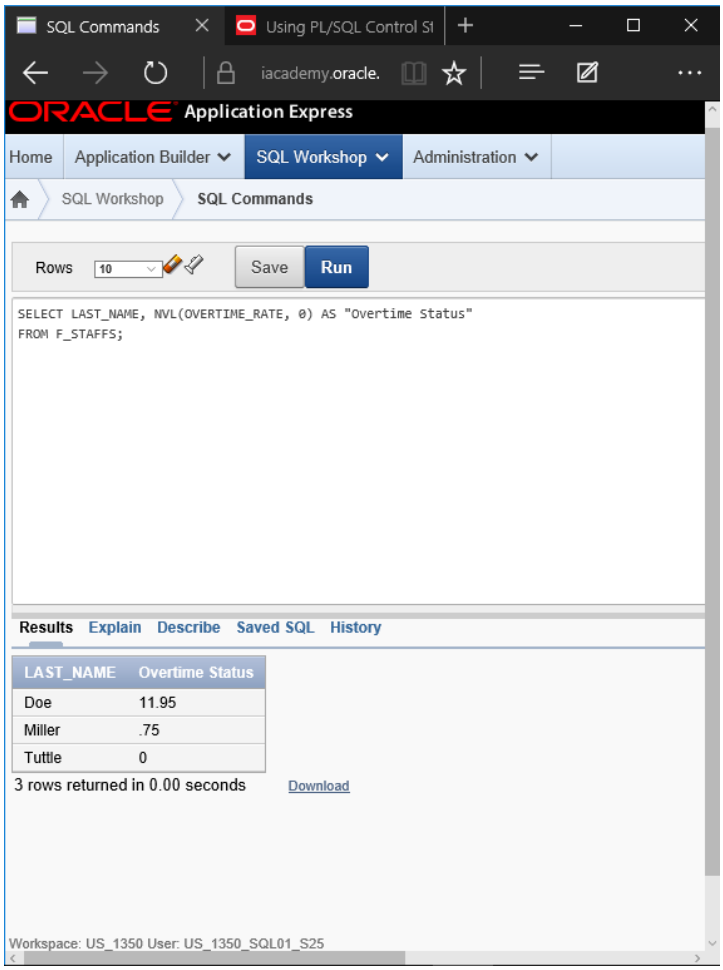
2. Not all Global Fast Foods staff members receive overtime pay. Instead of displaying a null value for these employees, replace null with zero. Include the employee's last name and overtime rate in the output. Label the overtime rate as "Overtime Status".



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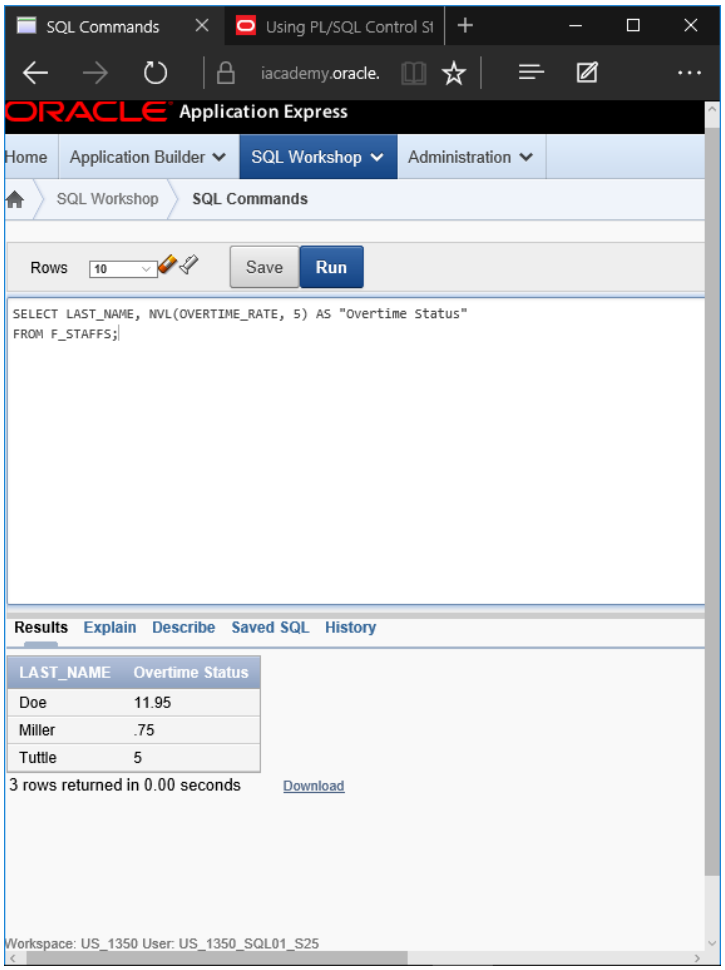
3. The manager of Global Fast Foods has decided to give all staff who currently do not earn overtime an overtime rate of $5.00. Construct a query that displays the last names and the overtime rate for each staff member, substituting $5.00 for each null overtime value.



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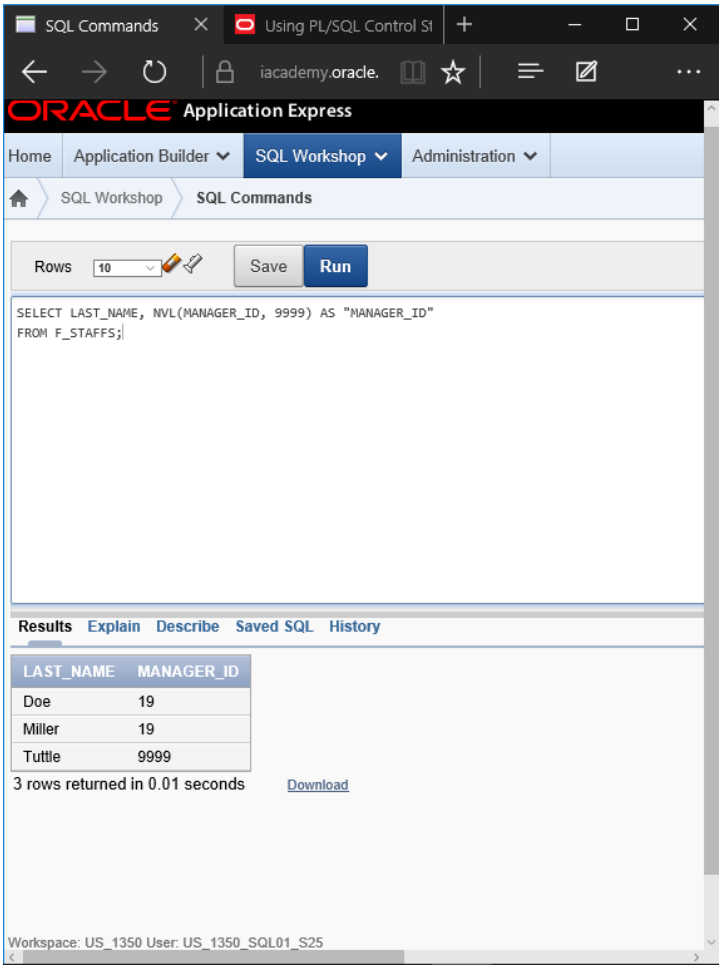
4. Not all Global Fast Foods staff members have a manager. Create a query that displays the employee last name and 9999 in the manager ID column for these employees.



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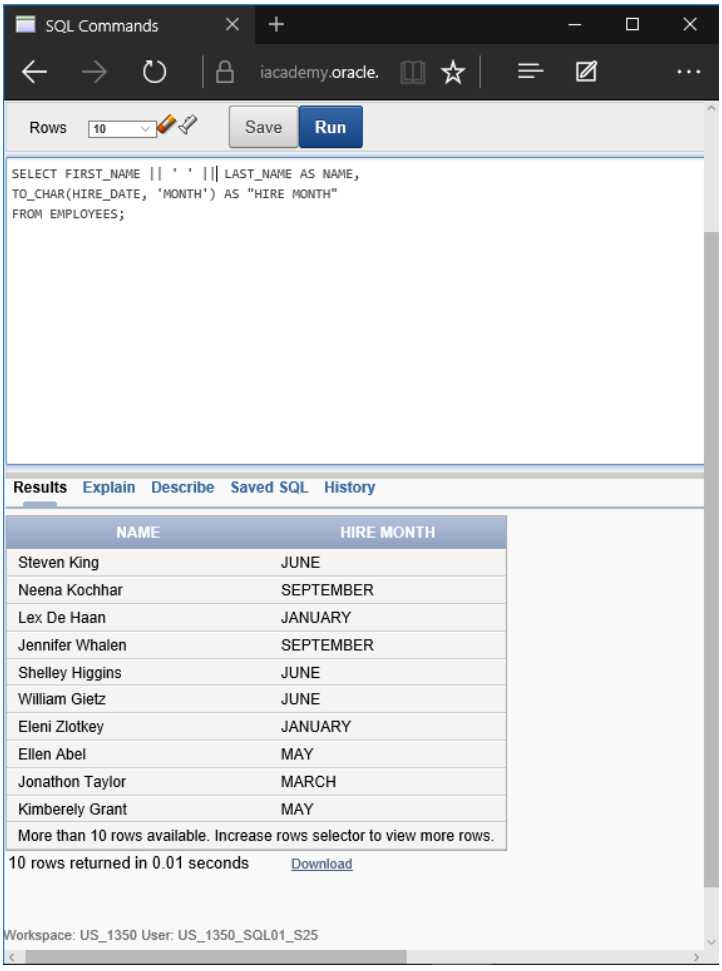
5. Which statement(s) below will return null if the value of v_sal is 50?
   a. SELECT nvl(v_sal, 50) FROM emp;
   b. SELECT nvl2(v_sal, 50) FROM emp;
   c. **SELECT nullif(v_sal, 50) FROM emp;** ←
   d. SELECT coalesce (v_sal, Null, 50) FROM emp;

6. What does this query on the Global Fast Foods table return?

   SELECT COALESCE(last_name, to_char(manager_id)) as NAME FROM f_staffs; This query returns the LAST_NAME column results given that it is not null. If in the case that it is null then the char conversion of the MANAGER_ID will be displayed under the column NAME.

7.
   a. Create a report listing the first and last names and month of hire for all employees in the EMPLOYEES table (use TO_CHAR to convert hire_date to display the month).



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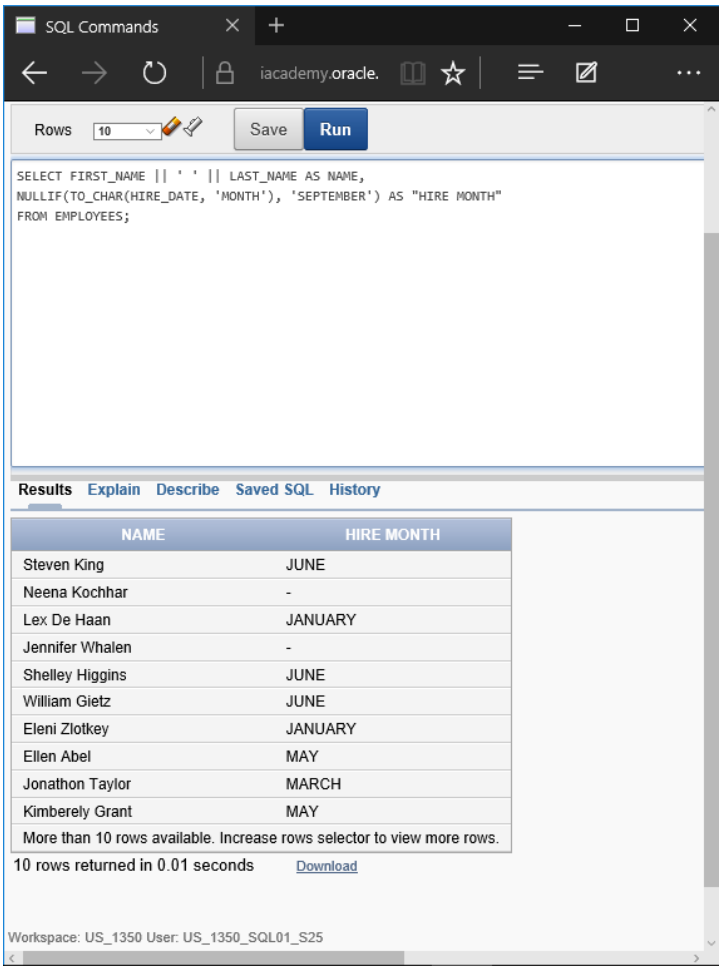
b. Modify the report to display null if the month of hire is September. Use the NULLIF function.



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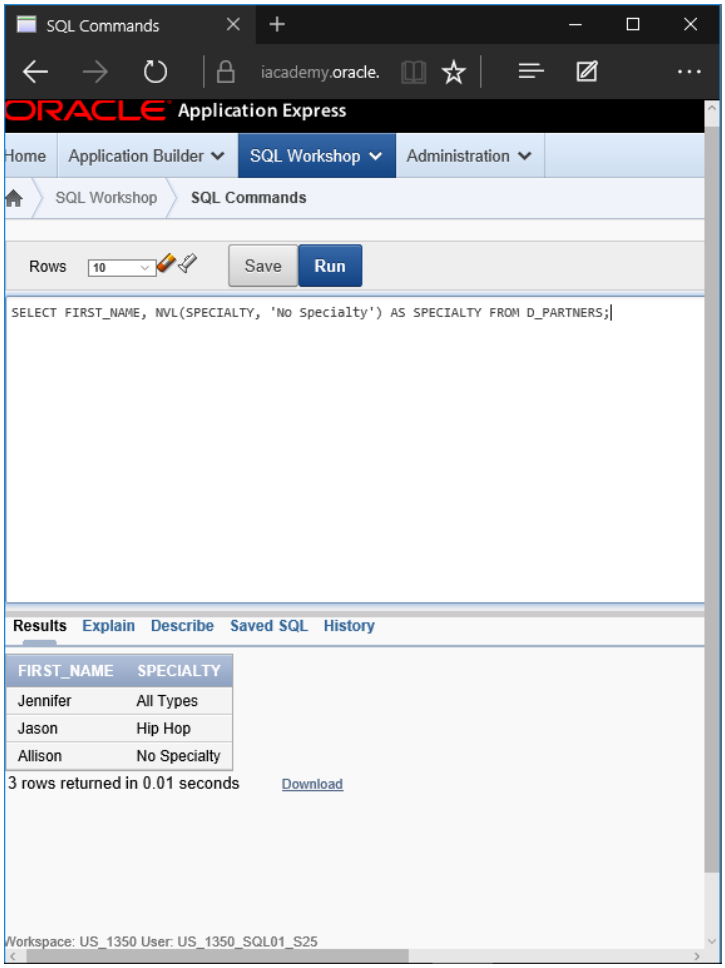
7. For all null values in the specialty column in the DJs on Demand d_partners table, substitute “No Specialty.” Show the first name and specialty columns only.



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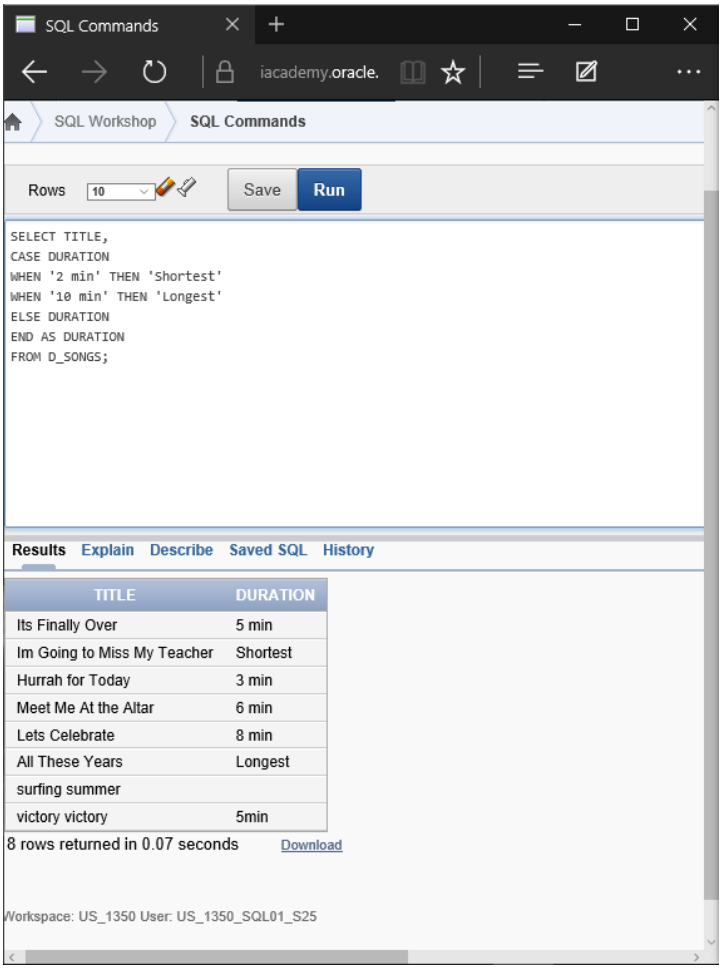
Section 2 Lesson 3: Conditional Expressions

Try It / Solve It

1. From the DJs on Demand d_songs table, create a query that replaces the 2-minute songs with “shortest” and the 10-minute songs with “longest”. Label the output column “Play Times”.



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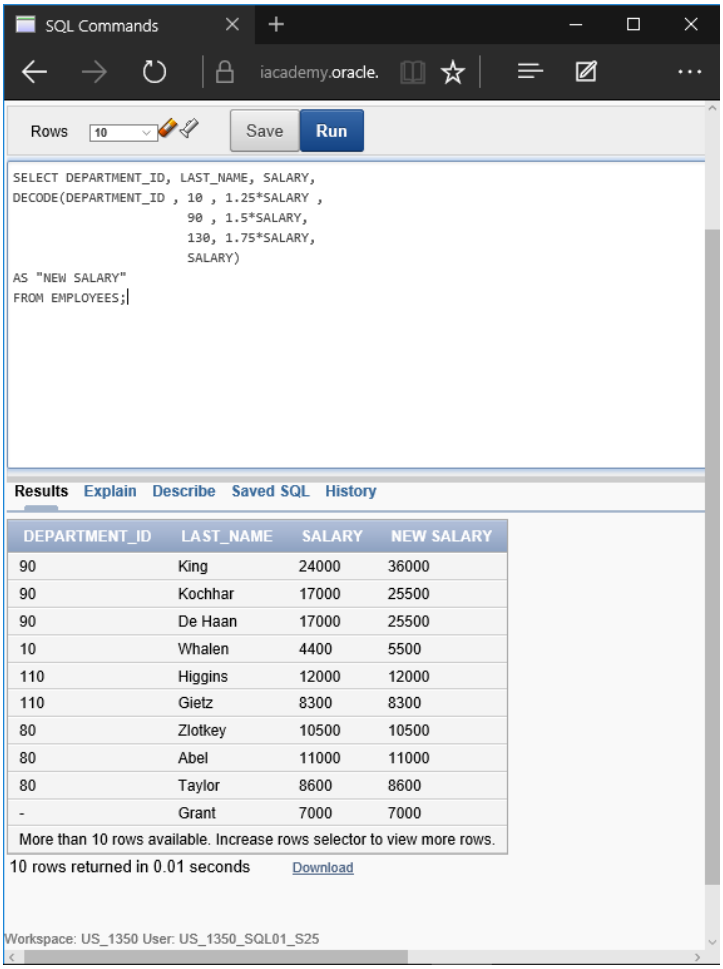
2. Use the Oracle database employees table and CASE expression to decode the department id. Display the department id, last name, salary, and a column called “New Salary” whose value is based on the following conditions:

   If the department id is 10 then 1.25 * salary
   If the department id is 90 then 1.5 * salary
   If the department id is 130 then 1.75 *salary
   Otherwise, display the old salary.



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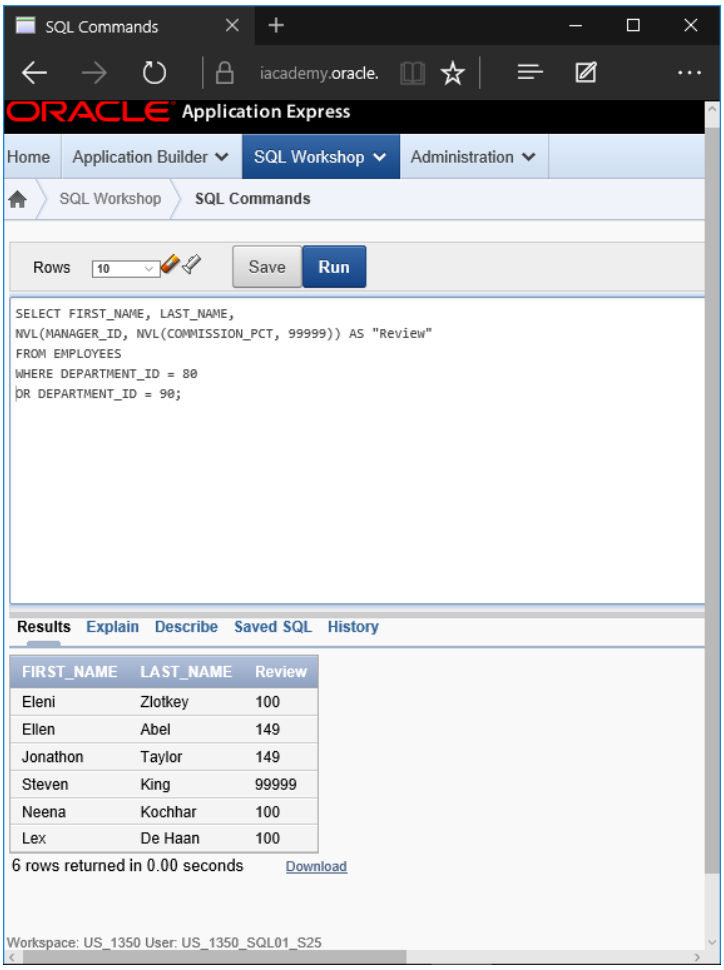
3. Display the first name, last name, manager ID, and commission percentage of all employees in departments 80 and 90. In a 5th column called “Review”, again display the manager ID. If they don’t have a manager, display the commission percentage. If they don’t have a commission, display 99999.



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