

Practices for Lesson 9: Handling Exceptions

Chapter 9

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Practice 9-1: Handling Predefined Exceptions

In this practice, you write a PL/SQL block that applies a predefined exception to process only one record at a time. The PL/SQL block selects the name of the employee with a given salary value.

1. Execute the command in the `lab_06_01.sql` file to re-create the `messages` table.
2. In the declarative section, declare two variables: `v_ename` of type `employees.last_name` and `v_emp_sal` of type `employees.salary`. Initialize the latter to 6000.
3. In the executable section, retrieve the last names of employees whose salaries are equal to the value in `v_emp_sal`. If the salary entered returns only one row, insert into the `MESSAGES` table the employee's name and the salary amount.
Note: Do not use explicit cursors.
4. If the salary entered does not return any rows, handle the exception with an appropriate exception handler and insert into the `MESSAGES` table the message "No employee with a salary of <salary>."
5. If the salary entered returns multiple rows, handle the exception with an appropriate exception handler and insert into the `MESSAGES` table the message "More than one employee with a salary of <salary>."
6. Handle any other exception with an appropriate exception handler and insert into the `MESSAGES` table the message "Some other error occurred."
7. Display the rows from the `MESSAGES` table to check whether the PL/SQL block has executed successfully. The output is as follows:

```
RESULTS
-----
More than one employee with a salary of 6000

1 rows selected
```

8. Change the initialized value of `v_emp_sal` to 2000 and re-execute. The output is as follows:

```
RESULTS
-----
More than one employee with a salary of 6000
No employee with a salary of 2000
```

Practice 9-2: Handling Standard Oracle Server Exceptions

In this practice, you write a PL/SQL block that declares an exception for the Oracle Server error ORA-02292 (integrity constraint violated - child record found). The block tests for the exception and outputs the error message.

1. In the declarative section, declare an exception `e_childrecord_exists`. Associate the declared exception with the standard Oracle Server error `-02292`.
2. In the executable section, display "Deleting department 40...." Include a `DELETE` statement to delete the department with the `department_id` 40.
3. Include an exception section to handle the `e_childrecord_exists` exception and display the appropriate message.

The sample output is as follows:

<pre>anonymous block completed Deleting department 40..... Cannot delete this department. There are employees in this department (child records exist.)</pre>

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