

Database Foundations

6-8 : Sorting Data Using ORDER BY

Practice Solutions

Exercise 1: Sorting Data Using ORDER BY

Overview

In this practice you will:

- Sort rows by using the ORDER BY clause

Tasks

1. Display all fields for each of the records in ascending order for the following tables:
 - a. AD_STUDENTS ordered by REG_YEAR

Solution:

```
SELECT ID, FIRST_NAME, LAST_NAME, PARENT_ID, REG_YEAR, EMAIL
FROM AD_STUDENTS
ORDER BY REG_YEAR;
```

- b. AD_EXAM_RESULTS ordered by STUDENT_ID and COURSE_ID

Solution:

```
SELECT STUDENT_ID, EXAM_ID, COURSE_ID, EXAM_GRADE
FROM AD_EXAM_RESULTS
ORDER BY COURSE_ID, STUDENT_ID;
```

- c. AD_STUDENT_ATTENDANCE ordered by STUDENT_ID

Solution:

```
SELECT STUDENT_ID, NUM_WORK_DAYS, NUM_DAYS_OFF, EXAM_ELIGIBILITY
FROM AD_STUDENT_ATTENDANCE
ORDER BY STUDENT_ID;
```

- d. AD_DEPARTMENTS ordered by DEPT_ID

Solution:

```
SELECT ID, NAME, HEAD
FROM AD_DEPARTMENTS
ORDER BY ID;
```

2. Display the percentage of days students have taken days off and sort the records based on the percentage calculated.

Solution:

```
SELECT STUDENT_ID, ((NUM_DAYS_OFF/NUM_WORK_DAYS)* 100) AS PERCT, EXAM_ELIGIBILITY
FROM AD_STUDENT_ATTENDANCE
ORDER BY PERCT;
```

3. Display the top 5 students based on exam grade results.

Solution:

```
SELECT ROWNUM As "HIGH SCORES", STUDENT_ID, EXAM_ID, EXAM_GRADE
FROM
    (SELECT STUDENT_ID, EXAM_ID, EXAM_GRADE
     FROM AD_EXAM_RESULTS
     ORDER BY EXAM_GRADE DESC)
WHERE ROWNUM <=5
```

4. Display the parent details ordered by PARENT_ID.

Solution:

```
SELECT ID, PARENT1_FN, PARENT1_LN, PARENT2_FN, PARENT2_LN
FROM AD_PARENT_INFORMATION
ORDER BY ID;
```