faculty

Aki

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1. Write a pandas program to select distinct department id from employees file

Aim:- To extract and display the unique department IDs from an employee data the using pandas in python

Pseudo Code:-

→ import the pandas library
→ load the employees data file into a pandas Dataframe
→ Select the DEPARTMENT_ID column.
→ use the unique() method or drop_duplicates() on DEPARTMENT_ID to find distinct department IDs.
→ point or return the unique department IDs.

Sample input:-

Depart_ID	Department_Name	manager	location
10	Administration	200	1700
20	Marketing	201	1800
30	purchasing	114	1700
10	Administration	200	1700
40	Human Resource	203	2400

Sample output:-

Unique Department IDs:- 10 20 30 40

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Result:- The code is executed sucessfully and got the output

input:

```
import pandas as pd

# Sample data simulating the employees file
data = {
    'employee_id': [1, 2, 3, 4, 5, 6],
    'department_id': [101, 102, 101, 103, 102, 104],
    'employee_name': ['Alice', 'Bob', 'Charlie', 'David', 'Eve', 'Frank']
}
```

```
# Create DataFrame
employees = pd.DataFrame(data)
  1.
# Method 1: Using `unique()` to get distinct department ids
distinct_department_ids = employees['department_id'].unique()
print("Distinct Department IDs (Method 1):")
print(distinct_department_ids)

# Method 2: Using `drop_duplicates()` to get distinct department ids as a DataFrame
distinct_departments_df = employees[['department_id']].drop_duplicates()
print("\nDistinct Department IDs (Method 2):")
print(distinct_departments_df)
```

output:

Distinct Department IDs (Method 1):
[101 102 103 104]

Distinct Department IDs (Method 2):

	department_id
0	101
1	102
3	103
5	104