# Problem 1809: Ad-Free Sessions

## Problem Information

**Difficulty:** Easy
**Acceptance Rate:** 0.00%
**Paid Only:** No

## Problem Description

Table:

Playback

+-------------+------+ | Column Name | Type | +-------------+------+ | session_id | int | | customer_id | int | | start_time | int | | end_time | int | +-------------+------+ session_id is the column with unique values for this table. customer_id is the ID of the customer watching this session. The session runs during the

inclusive

interval between start_time and end_time. It is guaranteed that start_time <= end_time and that two sessions for the same customer do not intersect.

Table:

Ads

+-------------+------+ | Column Name | Type | +-------------+------+ | ad_id | int | | customer_id | int | | timestamp | int | +-------------+------+ ad_id is the column with unique values for this table. customer_id is the ID of the customer viewing this ad. timestamp is the moment of time at which the ad was shown.

Write a solution to report all the sessions that did not get shown any ads.

Return the result table in

any order

.

The result format is in the following example.

Example 1:

Input:

Playback table: +------------+-------------+------------+----------+ | session_id | customer_id | start_time | end_time | +------------+-------------+------------+----------+ | 1 | 1 | 5 | | 2 | 1 | 15 | 23 | | 3 | 2 | 10 | 12 | | 4 | 2 | 17 | 28 | | 5 | 2 | 2 | 8 | +------------+-------------+------------+----------+ Ads table: +-------+-------------+-----------+ | ad_id | customer_id | timestamp | +-------+-------------+-----------+ | 1 | 1 | 5 | | 2 | 2 | 17 | | 3 | 2 | 20 | +-------+-------------+-----------+

Output:

+------------+ | session_id | +------------+ | 2 | | 3 | | 5 | +------------+

Explanation:

The ad with ID 1 was shown to user 1 at time 5 while they were in session 1. The ad with ID 2 was shown to user 2 at time 17 while they were in session 4. The ad with ID 3 was shown to user 2 at time 20 while they were in session 4. We can see that sessions 1 and 4 had at least one ad. Sessions 2, 3, and 5 did not have any ads, so we return them.

## Code Snippets

**MySQL:**

```
# Write your MySQL query statement below
```

**MS SQL Server:**

```
/* Write your T-SQL query statement below */
```

**PostgreSQL:**

```
-- Write your PostgreSQL query statement below
```

**Oracle:**

```
/* Write your PL/SQL query statement below */
```

**Pandas:**

```
import pandas as pd

def ad_free_sessions(playback: pd.DataFrame, ads: pd.DataFrame) ->
pd.DataFrame:
```

## Solutions

**MySQL Solution:**

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