

SQL Tasks

You have data about check-in and check-out dates, you have to answer the question, how many rooms should be prepared and opened for each given week?

The number of guests is not matter.

Script with data you find in the file Task1_Data.sql

You have table with game sessions, their start and end times, also player_id is given.

if two sessions for one player have difference less than 5 minutes we consider them as one.

For example:

Session_id - 1, player_id - 1, start_time - 2021-01-01 15:21:12, end_time - 2021-01-01 15:31:12

Session_id - 2, player_id - 1, start_time - 2021-01-01 15:34:35, end_time - 2021-01-01 15:55:18

this two sessions will be considered as one with duration of 34 min 6 sec

You have to calculate the duration of all sessions for one player within a day in minutes.

You have to show duration of longest and shortest session for one player within a day in minutes

You have to show rank of the user within the country. Users with longest duration of all sessions have the higher rank.

Script with data you find in the file Task2_Data.sql

Python

Website <https://fixer.io/> provides Open-Source API for current and historical foreign exchange (Forex) rates published by the European Central Bank.

Need to get data of exchange rates USD to EUR and MXN to EUR for last 2 weeks.

The dynamics of changes in both courses must be programmatically displayed on the same chart.

You can write sync and async versions of the script.