resulta

Python Development Challenge

Thank you for your interest in joining the Development Team at resulta!

This challenge helps us to understand how you think through technical problems and how you might architect and implement solutions to those problems. It also helps us to assess your comfort level with various technologies and determine which projects you might start on, if you join our team.

We understand that everyone has existing personal and work commitments, so this challenge is not intended to use up a lot of your time. As such, there is no specific deadline or pre-set time allotment. Send us your submission once you're comfortable with it. Some people prefer to dive right in and submit something right away, and others prefer spread out the time over a week or more - whatever works best for you and your schedule! Please note however, that our hiring process moves fast, so please send your submission as soon as possible.

If you have any questions or require any clarification, please email us and we'll get back to you as soon as we can.

The Problem:

Our *fake* client, ACME Sports, wants to develop a dynamic process to return a list of NFL events in JSON format. It's dynamic because the process will pull the NFL event data from a remote API that is frequently updated.

- The API endpoint URLs with the NFL data are below. Please assume that the API provides no other functionality other than to return the data in JSON format
    - Scoreboard: */scoreboard/{league}/{start_date}/{end_date}*

        https://delivery.chalk247.com/scoreboard/NFL/<YYYY-MM-DD>/<YYYY-MM-DD>.json?api_key=74db8efa2a6db279393b433d97c2bc843f8e32b0

    - Team Rankings: */team_rankings/{league}*

        https://delivery.chalk247.com/team_rankings/NFL.json?api_key=74db8efa2a6db279393b433d97c2bc843f8e32b0

- You can assume the API will always return the data in the exact same format, with the exact same field names and data types.
- For each event, combine responses from both endpoints to produce the following data (see example date range and response on page 3):

Response Label	Source Label	Source Endpoint	Format
event_id	event_id	scoreboard	
event_date	event_date	scoreboard	DD-MM-YYYY
event_time	event_date	scoreboard	HH:MM
away_team_id	away_team_id	scoreboard	
away_nick_name	away_nick_name	scoreboard	
away_city	away_city	scoreboard	
away_rank	rank	team_rankings	
away_rank_points	adjusted_points	team_rankings	Round up to 2 decimal places
home_team_id	home_team_id	scoreboard	
home_nick_name	home_nick_name	scoreboard	
home_city	home_city	scoreboard	
home_rank	rank	team_rankings	
home_rank_points	adjusted_points	team_rankings	Round up to 2 decimal places

Your Solution:

We are intentionally vague with the solution requirements because there are many different ways to solve this problem; all of which may be correct in their own way.

State your assumptions, make decisions and explain why you made them. A working implementation in code will be the best indicator of your abilities, however, if you prefer, you can describe how you would solve the problem in a PDF doc, you can attach drawings, doodles or screenshots, or you can write pseudo code - it's up to you! Include any third-party libraries or frameworks you want to save time. We like saving time too!

When you're finished, send us your submission. You can email us a link to a zip file on Dropbox.com that contains your submission file(s), or email us a link to the code repository where your submission is stored. Please don't send email attachments. If there's anything special we need to do on our end to view or run your submission, please explain in your email.

Example Response:

For the date range 2020-01-12 to 2020-01-19:

```
[
 {
  "event_id": "1233827",
  "event_date": "12-01-2020",
  "event_time": "15:05",
  "away_team_id": "42",
  "away_nick_name": "Texans",
  "away_city": "Houston",
  "away_rank": "21",
  "away_rank_points": "-6.00",
  "home_team_id": "63",
  "home_nick_name": "Chiefs",
  "home_city": "Kansas City",
  "home_rank": "2",
  "home_rank_points": "21.20"
 },
 {
  "event_id": "1233912",
  "event_date": "12-01-2020",
  "event_time": "18:40",
  "away_team_id": "52",
  "away_nick_name": "Seahawks",
  "away_city": "Seattle",
  "away_rank": "19",
  "away_rank_points": "-3.42",
  "home_team_id": "39",
  "home_nick_name": "Packers",
  "home_city": "Green Bay",
  "home_rank": "12",
  "home_rank_points": "5.05"
 },
 {
  "event_id": "1234560",
  "event_date": "19-01-2020",
  "event_time": "15:05",
  "away_team_id": "62",
  "away_nick_name": "Titans",
  "away_city": "Tennessee",
  "away_rank": "7",
  "away_rank_points": "10.75",
  "home_team_id": "63",
  "home_nick_name": "Chiefs",
```

```json
    "home_city": "Kansas City",
    "home_rank": "2",
    "home_rank_points": "21.20"
  },
  {
    "event_id": "1234565",
    "event_date": "19-01-2020",
    "event_time": "18:40",
    "away_team_id": "39",
    "away_nick_name": "Packers",
    "away_city": "Green Bay",
    "away_rank": "12",
    "away_rank_points": "5.05",
    "home_team_id": "58",
    "home_nick_name": "49ers",
    "home_city": "San Francisco",
    "home_rank": "4",
    "home_rank_points": "15.52"
  }
]
```