

# Homework: Adform Flow Front End Software developer

## Assignments

The candidate should create a simple react application that shows a list of campaigns that can be filtered by campaign name and by date (using a date range selector).

## Requirements

- The application should be accessible from a public repository in Github.
- The application must use to React and Redux.
- There is no restriction on the libraries/tools to use during the development.
- The look and feel of the application are left to the taste of the candidate.
- The application must be written as if it would be released in production.
- External API must be called (details below).
- Unit test

## Bonus points

- At least one Thunk function.
- All application is covered by a unit test.
- Error handling and loading progress indication.
- Interactive (which respond to every keypress, validation, etc.) text box where new campaign data can be added

## Application Requirements

The application should be a simple page with the following elements:

- A list of Campaign which shows
  - The Name
  - The startDate
  - The endDate
  - A flag to state if the Campaign is active (a campaign is running when the current date is inside the start-end date range)
  - The Budget (in USD dollar)
  - User name (can be *Unknown user*, if the user's data is missing for specified userId)
- A Search Form before the list in order to filter the list by Campaign Name
- A DateRange component that filters the list of campaigns based on a Start and End Date.
  - If the campaign has a startDate that is contained in the range, it should show
  - If the campaign has an endDate that is contained in the range, it should show.
  - You should not be able to select an end-date that is before the start-date.
- If the endDate is before the start Date, the campaign should not show.

## External API

Example API: <https://jsonplaceholder.typicode.com/users> (can be replaced with another one).

The API should return an array of users with ids and names. These ids need to be used to resolve the user name by userId of campaign array (see below).

If the API doesn't contain the userId from campaigns list, *Unknown User* should be displayed.

## Mockup

**The UI look and feel is left to the candidate**, use your own taste and make it as beautiful as you can.

The list should show in some kind of Table.

The active status should be in the green palette.

The inactive status should be in the red palette.

Here is a basic example mockup:

<input type="text" value="Start-Date"/>	<input type="text" value="End-Date"/>	<input type="text" value="Search by name"/> 			
Name	User Name	Start Date	End Date	Active	Budget
Campaign 1	Unknown User	01/12/2018	27/12/2018	<span style="color:red;">●</span> Inactive	3k USD
Campaign 2	Leanne Graham	01/01/2018	31/12/2018	<span style="color:green;">●</span> Active	10k USD
Campaign 3	Ervin Howell	24/02/2018	01/01/2019	<span style="color:green;">●</span> Active	500 USD
Campaign 4	Clementine Bauch	25/06/2019	24/08/2018	<span style="color:green;">●</span> Active	500K USD
Campaign 5	Samantha O'Conner	12/12/2017	13/12/2017	<span style="color:red;">●</span> Inactive	980 USD
Campaign 6	Unknown User	01/04/2018	05/04/2018	<span style="color:green;">●</span> Active	1.3K USD
Campaign 7	Nicholas Runolfsdottir	24/10/2017	24/10/2020	<span style="color:green;">●</span> Active	5.2 M USD

## How to test the application

The candidate will expose a global method called 'AddCampaigns' that takes an array of Campaigns and will render them. This function will be invoked from the browser's JavaScript console for testing purposes. If it cannot be invoked, the submission will be rejected. The method is allowed to be called multiple times. If so, the new campaigns will append to the existing list. All these scenarios can be covered using the interactive text box

Example of campaign array that can be passed

```
[{"id":1,"name":"Divavu","startDate":"9/19/2017","endDate":"3/9/2018","Budget":88377,"userId": 3},
 {"id":2,"name":"Jaxspan","startDate":"11/21/2017","endDate":"2/21/2018","Budget":608715,"userId": 6},
 {"id":3,"name":"Miboo","startDate":"11/1/2017","endDate":"6/20/2017","Budget":239507,"userId": 7},
 {"id":4,"name":"Trilith","startDate":"8/25/2017","endDate":"11/30/2017","Budget":179838,"userId": 1},
 {"id":5,"name":"Layo","startDate":"11/28/2017","endDate":"3/10/2018","Budget":837850,"userId": 9},
 {"id":6,"name":"Photojam","startDate":"7/25/2017","endDate":"6/23/2017","Budget":858131,"userId": 3},
 {"id":7,"name":"Blogtag","startDate":"6/27/2017","endDate":"1/15/2018","Budget":109078,"userId": 2},
 {"id":8,"name":"Rhyzio","startDate":"10/13/2017","endDate":"1/25/2018","Budget":272552,"userId": 4},
 {"id":9,"name":"Zoomcast","startDate":"9/6/2017","endDate":"11/10/2017","Budget":301919,"userId": 8},
 {"id":10,"name":"Realbridge","startDate":"3/5/2018","endDate":"10/2/2017","Budget":505602,"userId": 5}]
```

