

Cinema challenge

PHP

2020

Thomas



The cinema challenge

Assignment

You're asked to create a small part of the booking system for a cinema.

Your tool should be able to assign seat numbers to people who reserve a seat via an online booking system.

As input you will receive the number of people that want to go to the cinema. Your output must be a list / an array with the chair numbers that will be reserved for the specific booking.

Since people in a single booking usually come as a group, you should try to assign adjoining seats as much as possible. That way, people from the same group will sit together most of the time.

The seats in the cinema are incrementally numbered. Row numbers can be omitted. If there are several possibilities to seat the people, please return the first possibility. If there are no possibilities to seat the group as a whole, please try to seat as many of the people of the group together and find the best seats for the remaining people.

For example; If there is no place for seven people, you start looking for a place for 6 people, and you will put the 7th person on his own, preferably near the group. This process can be continued until the entire group is seated

.

If it is not possible to place the group of people in the movie theater your function returns a NULL instead of the array..

Please create a (dynamic) visual presentation of the seats in the cinema and the

occupation, so that the output of your function can be viewed visually.

This does not mean you need to create a fully fletched Vue application that supports all viewports and IE8. Be pragmatic.

Technology & side notes

- Please use PHP and MySQL for your application. You are completely free to use a framework or library, but are in no way obliged to do so.
- Make sure your algorithm is able to deal with a variable amount of seats.
- Make sure that you randomly populate the available seats in order to properly test your algorithm.
- Act as if your code is part of a larger booking system. Create clean and reusable code and provide easy endpoints for the rest of the application to communicate with your algorithm.
- Please write your comments in English.
- You can decide how fancy you want the end result to be. Including the cinema's look & feel.

Good luck with the assignment.

And remember: there is no right or wrong in this challenge, we simply want to know how you are thinking as a developer. Keep in mind, we're developers too ;)