

## **The cinema challenge**

### **Assignment**

You will be asked to create a small part of the reservation system for a cinema. Namely the functionality that assigns seat numbers to people who reserve a place via a online bookingsystem.

As input you receive the number of people that want to go to the cinema. Your output must be an array that returns the chairnumbers that need to be reserved. It is your aim to let people sit next to each other as much as possible.

So you have to create a method where you can find space in a list with chairs that meets the desired amount of people.

The seats in this cinema are ordered by upfollowing numbers so rows are irrelevant. If there are several opportunities where the people can sit, please return the ability with the lowest seat numbers (the first common) to give back. If there are no possibilities that the group as a whole can sit together, you need to put aside people until "it fits".

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 way you will go on until the entire group has a seat.

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 thereof, so that the operation of your intent can be visually viewed.

### **Technique**

For technique, we want you to make use of PHP and MySQL. The design of the project, and any frameworks or libraries that you would like to put to the challenge tackling are free to choose (not required!). However, the logic that is used to select the best places has to be originally written (by you) of course.

### **Practice**

As a starting point you can use testcase\_cinema.php please see the annex. There is an undefined number of seats. Your function(s) must therefore be able to deal with 10, but also with 10,000 seats (or more).

Furthermore, a random number of seats will already be occupied. Assume that your work is part of a larger whole, where there are several possibilities to reserve seats.

Please use a database to registrate the occupation of the chairs.

Good luck!

NOTE:

Please make comments in English;

There is no right or wrong in this challenge, we simply want to know how you are thinking as a developer;

You decide how fancy you want to make this assignment (incl. the cinema's look & feel);

Let us see what you can do, convince us!

Keep in mind, we're developers to ;)

## ANNEXX

```
<?php
/**
 * Give a list of seatnrs for the number of persons that need to be
 * seated
 *
 * @param int $visitors the number of persons that need to be seated
 * @return array reserved seatnumbers
 */
function giveSeatNumbers($visitors)
{
    $seats = array();

    return $seats;
}
?>
```