# Creation of random equitable groups based on performance

## **Input Data:**

- Team numbers
- Member's names
- Value from 1 to 10 that represents the performance of each member

# **Output data**

The members of the groups must be randomly assigned based on the performance of each one so that the groups remain equitable. A random group cannot result in which the total performance of the members is significantly lower or higher than another team.

#### Use case:

Think that you want to create some sports teams, and you want to make them equitable so there is not a stronger team than others.

# **Acceptance Criteria:**

- The webpage should be responsive
- The form to insert the entry data should be user friendly
- The results should be user friendly to read
- The script should be made in Vanilla JS or PHP (preferred in JS)
- Sometimes the number of team members will be odd, Ex. 21 members to create 5
  teams, it means that the result should be 4 teams of 4 members and one team will end
  with 5 members. In this case the logic should be always to get the most equity teams in
  performance.
- The source files should be deliverable at the end of the project.
- It's well appreciate the comments in the code to understand how it works

# Example:

Number of teams: 4

Members and its performances (see following table):

Juan 10	Pedro 10	Pablo 10	Vilma 9	Beti 9	Dino 8	Vam 8
Jose 8	Carlos 8	Karina 8	Maria 7	Mery 6	Sam 6	Ani 5
Josh 5	Cesar 5	Sofia 3	John 3	Kais 3	Lao 2	

#### Results

## **Correct Result:**

- Group 4 has a higher total performance since it does not have a member of maximum performance (10).
- Group 3 has two members with a performance of 8, while the others do not, this is compensated by giving a member with a performance of 2 to Group 3, while the others were given members with a performance of 3.

Group 1	Group 2	Group 3	Group 4
Juan 10	Pedro 10	Pablo 10	Vilma 9
Dino 8	Vam 8	Jose 8	Beti 9
Mery 6	Maria 7	Karina 8	Carlos 8
Sam 6	Ani 5	Josh 5	Cesar 5
Sofia 3	John 3	Lao 2	Kais 3
Total: 33	Total: 33	Total: 33	Total: 34

#### **Incorrect Result:**

- Group 1 had a significantly high total performance and included 2 members with a maximum performance of 10, while two groups (3 and 4) had no members with a performance of 10.
- Group 4 was left with a significantly low total performance, with no performance members of 10 or 9

Group 1	Group 2	Group 3	Group 4
Juan 10	Pablo 10	Vilma 9	Vam 8
Pedro 10	Dino 8	Beti 9	Mery 6
Jose 8	Carlos 8	Maria 7	Ani 5
Karina 8	Sam 6	Josh 5	Cesar 5
Lao 2	Kais 3	John 3	Sofia 3
Total: 38	Total: 35	Total: 33	Total: 27