Tech Challenge

Hi and welcome to the tech challenge!

We are going to present to you an exercise that has many ways to resolve. What we want from you is to do your very best in order to create a simple and scalable solution.

Feel free to make optimizations as much as you want, but keep in mind that any optimization done from your side should have an explanation.

In order to verify that the code is working correctly, we want you to create Unit Tests with the values highlighted in the expected section of this document.

Without further ado, let's begin:

1. You are working for a multinational company that has 251 employees around the globe. In order to speed up the process of salary increments, your boss wants you to develop a program that groups each employee in different sections depending on their position (HR, Engineering, Artist, Design and PM).

   In addition, employees should be ordered depending on current seniority (Junior, Semi Senior and Senior).

   Expected:

   a. ***In the company there are:***
      i. ***20 HR → (5 Seniors, 2 Semi Seniors and 13 Juniors)***
      ii. ***150 Engineering → (50 Seniors, 68 Semi Seniors and 32 Juniors)***
      iii. ***25 Artist → (5 Seniors and 20 Semi Seniors)***
      iv. ***25 Design → (10 Seniors and 15 Juniors)***
      v. ***30 PMs → (10 Seniors and 20 Semi Seniors)***
      vi. ***1 Ceo***

2. After separating all employees in different groups, it has been decided that in order to speed up the salary increment process, the percentage will vary depending on position and seniority.

   Expected:

   a. ***The salary increment percentage is:***
      i. ***HR → (5% Seniors, 2% Semi Seniors and 0.5% Juniors)***
      ii. ***Engineering → (10% Seniors, 7% Semi Seniors and 5% Juniors)***
      iii. ***Artist → (5% Seniors and 2.5% Semi Seniors)***
      iv. ***Design → (7% Seniors and 4% Juniors)***
      v. ***PMs → (10% Seniors and 5% Semi Seniors)***
      vi. ***1 Ceo → (100%)***

3. In addition, this company uses a standardized salary system, in which employees have the same salary depending on their seniority and position.

   Expected:

   a. ***The base salary is:***
      i. ***HR → ($1500 Seniors, $1000 Semi Seniors and 500$ Juniors)***
      ii. ***Engineering → ($5000 Seniors, $3000 Semi Seniors and $1500 Juniors)***
      iii. ***Artist → ($2000 Seniors and $1200 Semi Seniors)***
      iv. ***Design → ($2000 Seniors and $800 Juniors)***
      v. ***PMs → ($4000 Seniors and $2400 Semi Seniors)***
      vi. ***1 Ceo → ($20000)***
   b. ***The resulting salary after increment should be:***
      i. ***Do the math for each one.***