

Python 3.10 Practical Question Set-2

Note:

- All Questions are mandatory.
- Define function where needed.
- Write steps/pseudocode for all questions.

1. Write a function to extract words from the sentence that are repeated multiple times, the function must return value(s).
Display those words with the '#' separator (use the join function).
For example: WORD1 # WORD2 # WORD3
 2. Write a program to extract string elements from a list based on the conditions below, using built-in functions.
 - a. The first character must capitalize and consonant.
 - b. The string must not contain any number.
 3. Write a program to create a list of numbers, and extract integer numbers from a list based on the below conditions.
 - a. The number must be 4 digits long i.e (1000 to 9999)
 - b. The first digit of the number must be odd and the last digit must be even.
 - c. The number must be divisible by either 3 or 7.
 4. In one company there are few employees (Prepare dictionary from below details):
 - Robert Downey and Anne Hathaway are Project Managers. Robert has 4 TL: Mark, Samuel, Paul, and Tom, all have 8 Years of experience. Anne has 5 TLs, all have 5 Years of Experience: Chris, Pratt, Emma, Will, and Smith. James is TL and has 3 senior developers Jennifer, Scott, and Sophie, they have 3.8 years of experience and his manager is Chris, Fergal is a senior developer and has 4.5 years of experience and his mentor is Paul. Edge has 3 years of experience and Ryan has 3.5 years of experience. Their designation is senior developer and his manager is Will. Jerry and John are junior developers and their mentor is Tom, their experience is 1.5 and 1.6 years of experience. Leonardo and Alexandra are junior developers and their mentor is Mark who has 1 year of experience in each. Walker and Diana are senior developers and they have 2.7 years of experience and their reporting manager is Smith.
 - a. Display all employees' names for the given project manager name.
 - b. Display names of only those employees whose experience is more than 4 years.
 - c. Update years of experience with 4.6 whose experience is greater than 3.5 and less than 4.5 years.
 - d. Display TL with their year of experience, if has no experience then display N/A.
 - e. Smith left the company and all his members were assigned to Ryan.
 - f. Check company has any employee who has less than 2 years of experience.
 - g. Check whether Edge is TL or not if not make him TL.
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