Capstone Project Python Fundamentals

Dataset Explanations

Attributes

1) **id** - Assigned number for Project head who will be in charge of the project.
2) **name** - person handling the project.
3) **gender** – Male(M), Female(F)
4) **city** - locations of the project
5) **age** - number of years the project will be active.
6) **status** - status of the project
7) **designation level** - position of the project head
    - excessive failures indicate designation grades to reduce.
    - a person with a good reputation means a very high chance to increase his designation.

Designation scale -

- a) 1-highest
- b) 2, 3 mid positions and 4 being the least
- c) If anyone crosses 4 then he loses eligibility for heading the project.

Dataframes

Project DataFrame			
ID	Project	Cost	Status
A001	Project 1	1002000	Finished
A002	Project 2	2000000	Ongoing
A003	Project 3	4500000	Finished
A004	Project 4	5500000	Ongoing
A005	Project 5		Finished
A002	Project 6	680000	Failed
A005	Project 7	400000	Finished
A003	Project 8	350000	Failed
A001	Project 9		Ongoing
A003	Project 10	300000	Finished
A001	Project 11	2000000	Failed
A004	Project 12	1000000	Ongoing
A004	Project 13	3000000	Finished
A005	Project 14	200000	Finished

Employee DataFrame

ID	Name	Gender	City	Age
A001	John Alter	M	Paris	25
A002	Alice Luxumberg	F	London	27
A003	Tom Sabestine	M	Berlin	29
A004	Nina Adgra	F	Newyork	31
A005	Amy Johny	F	Madrid	30

Seniority Level DataFrame

ID	Designation Level
A001	2
A002	2
A003	3
A004	2
A005	3

Problems

Task 1
There are three different tables as given above. Please make three dataframe in python and save them as three .csv files. From Task 2 to Task 10, use the saved .csv files only.

Task 2
The cost column in the dataframe "Project" has some missing values. Your task is to compute these missing values. Replace the missing values by running average. You should use the "For" loop for this task.

Task 3
Split the name column in the Employee dataframe into two new columns "First Name", and "Last Name" and remove the older "name" column.

Task 4
Join all three dataframes in one single dataframe. Name it "Final"

Task 5
Add a new bonus column in the Final dataframe. Give a 5% bonus concerning project cost only to employees who have finished the projects.

Task 6
Demote the designation level by 1, whose projects have status "fail". Delete the employees record whose designation level is above 4.

Task 7
Add "Mr." and "Mrs." to the first name column and drop the gender column.

Task 8
Promote designation level by 1 for the employees whose age is more than 29 years using IF condition.

Task 9
Add the cost of all projects for each Employee and save it in new dataframe "TotalProjCost" with three columns ID, First Name, and Total cost

Task 10
Print all the employee details whose city name contains the letter "o" in it.