Task 1:

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Write a Object oriented program to check whether the password is valid or not

Following are the criteria for checking the password:

1. At least 1 letter between [g-z]

2. At least 1 number between [6-9]

3. At least 1 letter between [A-Z]

4. At least 1 character from $ or # or @ or !

5. Minimum length of password: 6

6. Maximum length of password: 12

Your program should accept a sequence of comma separated passwords and will check them according to the above criteria.

Example:

If the following passwords are given as input to the program:

ABd1234@1,a F1#,2w3E\*,2We3345

Then, the output of the program should be:

ABd1234@1

Passwords that match the criteria are to be printed, each separated by a comma.

- ensure that the code is implemented with proper exception handling.

- validations wherever it is required

- write the test case for each of the criteria mentioned above.

- create a test suite with all the test cases and create the final html report

Task 2:

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Write a objet oriented python program to implement Employee Management System. In which you have to include the given topics as per requirement of the program: Inheritance, Lambda Expressions, Exceptional Handling and file handling.

create a menu for the user which consists of 5 different features.

1.To add an employee ( write the output to file with employee id)

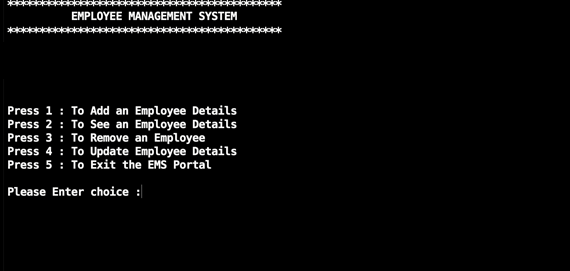
2.To view details of an employee ( read from the file )

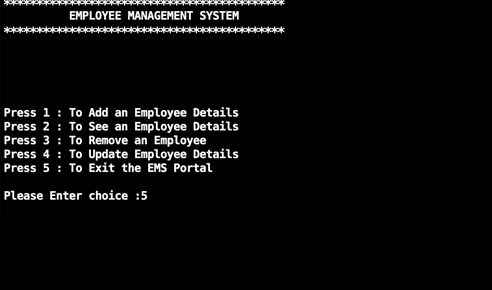
3.To remove an employee

4.To update info of an employee

5.To exit

User need to just enter the numbers as per given and it will perform the task.





Task 3:

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Write a program to read realestate.csv and insert all the records to excel file and the excel file should be today’s timestamp ( Eg: 25\_Nov\_2022.xlsx )

- write the separate test cases to check whether the

excel file is created or not,

size of the file is greater than zero or not

-write the test case whether the no. of records in realestate.csv and excel records are equal or not.

-write the test case whether the count of columns in file and database are equal or not.

- you can also add other required test cases if required

-create a test suite with all the test cases

Also write a program to convert realestate.csv to the json file ( dictionary of dictionaries )

Task 4

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Write a program to read hosts.csv file containing all the hostnames of the topmost servers and check whether the hostname is the valid or not (ending with .com ) and also find the IP Address of each hostname and write the output the ip addresses to Hostwithip.xlsx

Also implement the same solution with multithreading module

Also implement the same solution with multiprocessing module

Task 5

Implement a Object oriented program for maintaining a database of student records using Files.

Student has Student\_id, name, Roll\_no, Class, marks(M1 , M2 , M3 , M4 , M5, M6 ) and address.

Display the data for few students. –

1) Create Database

2) Display Database

3) Delete Records

4) Update Record

5) Search Record