File Handling Practice Problems

Problem 1:

Write a program in Python that reads a file named `notes.txt` and print its contents line by line.

Sample Input:

Python is fun.
Files are useful.
Practice makes perfect.

Expected Output:

Python is fun.
Files are useful.
Practice makes perfect.

Problem 2:

Write a program in Python that opens a file `story.txt` and count:
- Total number of lines
- Total number of words
- Total number of characters

Sample Input:
She learns Python.
Every day she practices.

Expected Output:

Lines: 2
Words: 7
Characters: 43

Problem 3:

Write a program in Python that takes input from the user line by line until they type `stop`. Write each line to `output.txt`.

Sample Input:

I love Python.
It is easy to learn.
stop

Expected Output:

I love Python.
It is easy to learn.

Problem 4:

Write a program in Python that copies content from `source.txt` to `destination.txt`.

Sample Input (source.txt):

Hello World
Welcome to Python

Expected Output (destination.txt):

Hello World
Welcome to Python

Problem 5:

Write a program in Python that counts how many times the word "python" appears in the file `data.txt` (case-insensitive).

Sample Input:

Python is powerful.
I love python.
PYTHON is easy.

Expected Output:

The word "python" appears 3 times.

Problem 6:

Write a program in Python that saves the following dictionary to `grades.txt` in `name: grade` format.

Dictionary:
{"Arif": 85, "Nila": 92, "Sabbir": 78}

Expected Output (grades.txt):

Arif: 85
Nila: 92
Sabbir: 78

Problem 7:

Write a program in Python that loads `grades.txt` content into a dictionary where name is key and grade is value.

Sample Input:

Arif: 85
Nila: 92
Sabbir: 78

Expected Output:

{"Arif": 85, "Nila": 92, "Sabbir": 78}

Problem 8:

Write a program in Python that loads `contacts.txt` into a dictionary, take new name and phone number as input, and append to the file.

Sample Input:

Sabbir: 12345
Sani: 67890

User Input:
Name: Saima
Number: 54321

Expected Output:

Sabbir: 12345
Sani: 67890
Saima: 54321

Problem 9:

Write a program in Python that stores the following nested dictionary into `employees.txt` in comma-separated format.

Dictionary:
{"101": {"name": "Rahim", "department": "IT"}, "102": {"name": "Karim", "department": "HR"}}

Expected Output:

101, Rahim, IT
102, Karim, HR

Problem 10:

Write a program in Python that reads `employees.txt` and convert the contents into a nested dictionary.

Sample Input:

101, Rahim, IT
102, Karim, HR

Expected Output:

{"101": {"name": "Rahim", "department": "IT"}, "102": {"name": "Karim", "department": "HR"}}