The Islamic University of Gaza

Faculty of Information Technology

Department of Computer Science

Fall Semester 2025–2026
Multimedia Programming I
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Files

Task 1: Save Personal Information to a File

Write a Python program that asks the user to enter some personal information, then saves this information into a text file.

Input : **Your program should ask the user to enter the following:**

1. Name
2. Age
3. Favorite programming language

Requirements :

1- Create a text file named **python.txt**
2- Write the entered information into the file
3- Each piece of information must be written on a separate line
4- The data should be written in the same order as the input

Output : A text file named python.txt containing three lines:

Line 1: Name
Line 2: Age
Line 3: Favorite programming language

Task 2: Read and Display File Contents

Write a Python program that reads and displays the contents of the same file created in Task 1, which is named **python.txt.**

Requirements

1- Open the file python.txt in read mode
2- Read all the contents of the file
3- Display the contents on the screen exactly as stored in the file
4- Close the file after reading.

Output :

The program should display all lines from **python.txt** on the screen.

Task 3: Read File and Count Vowels

Write a Python program that reads a text file and counts the number of vowels in it.

File Content :

Create a text file named message.txt with the following content:
"Python programming is amazing and fun"

Steps :

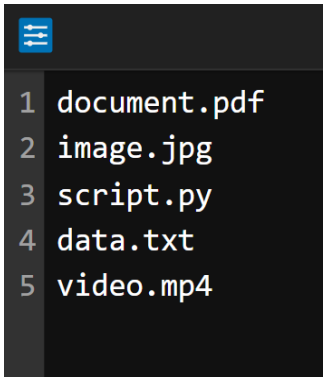
1- **Open the file message.txt in read mode**
2- **Read the file content**
3- **Count the number of vowels (a, e, i, o, u)**
4- **Close the file**
5- **Print the count for each vowel**
6- **Print the total number of vowels**

Output :
Vowel counts in the file:
a: 4
e: 0
i: 3
o: 2
u: 1
Total vowels: 10

Note : The comparison should be case-insensitive (count both lowercase and uppercase vowels if any).

Task4 : File Extension Validator .

Write a Python program that reads file names from a text file and checks which files have valid extensions.
File Content
You are given a text file named **test.txt**.
The file contains a list of file names, each one on a separate line, for example:



(test.txt) file content

Valid Extensions :

A file is considered valid if its extension is one of the following:

- .pdf
- .txt
- .py

Steps :

1- Open the file test.txt in read mode

2- Read all file names from the file

3- Check the extension of each file

4- Select only the files with valid extensions

5- Close the file

6- Print the valid files on the screen

Expected Output:

Valid files:

- document.pdf

- script.py

- data.txt

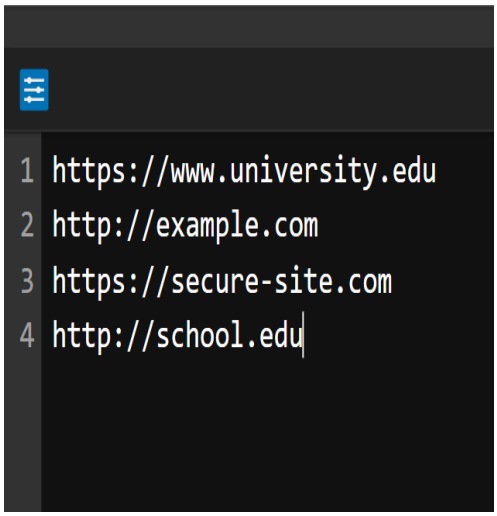
Note : Each file name is written on a separate line , File extension comparison should be case-insensitive.

Task 5: URL Security and Type Checker .

Write a Python program that reads URLs from a text file and classifies each URL based on its security and type.

File Content

You are given a text file (for example: **links.txt**) that contains one URL per line, such as:



(links.txt) file content

Classification Rules:

Your program should classify each URL as follows:

Classification	Description
"SECURE & EDUCATIONAL"	If the URL starts with https:// and ends with .edu
"SECURE ONLY"	If the URL starts with https:// only
"EDUCATIONAL ONLY"	If the URL ends with .edu only
"UNSECURE and non educational"	For all other URLs

Steps :

1- Open the file in read mode

2- Read all URLs from the file

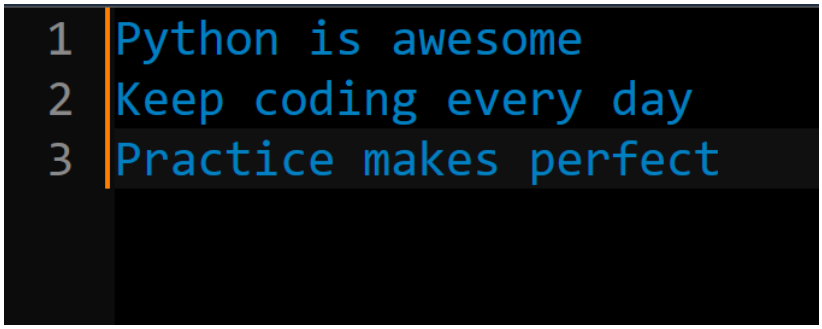
3- Check each URL using the rules above

4- Print the classification result for each URL

5- Close the file

Task 6: Text File Reverser :

Create a text file named **original.txt** with the following content:



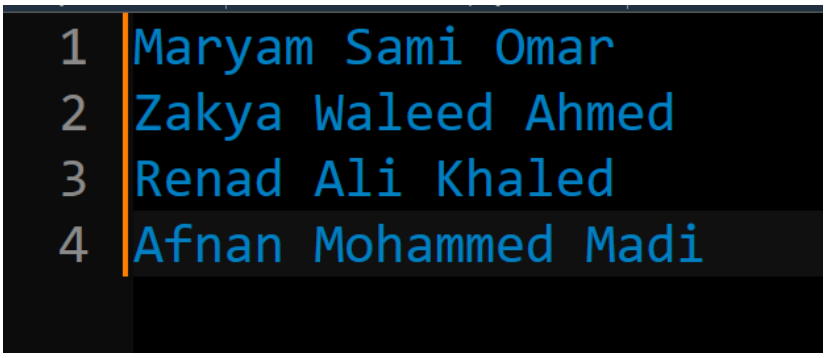
(**original.txt**) file content

Steps:

1- **Open original.txt in read mode**
2- **Read all lines .**
3- **Reverse each line .**
4- **Write the reversed lines to a new file named reversed.txt**
5- **Close both files**
6- **Display the original content and the reversed content side by side**

Task 7 : Extract Initials and Save to File

Create a text file named students.txt that contains one full name per line, as shown below:



(students.txt) file content

Steps:

1- Create a function named get_initials(full_name) that:
   a. Uses .split() to separate the full name into individual words
   b. Extracts the first letter of each word
   c. Joins the letters using dots (.) with .join()
2- Open students.txt in read mode
3- Read all names from the file
4- Generate initials for each name using the get_initials() function
5- Write the results to a new file named **initials.txt** using the following format:

   Full Name – Initials
6- Close all files

Expected Output (in initials.txt)

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