CS361 Assignment 9: Microservice Implementation (Milestone #2) + Publish Communication Contract to Partner

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Communication Contract

NOTE: Before running the microservice, make sure to install 'pandas' module

To send request to the microservice, write to the file **'unfiltered.csv'** in the following format:

	File Name	Size (MB)	Date Modified	File Format	File Path
1	File Name	Size (MB)	Date Modified	File Format	File Path
2	null	null	> 01/01/2023 00:00:0	null	null
3	monet-exhibition.jpeg	0.22	06/25/2023 16:29:03	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Original/monet-exhibition.jpeg
4	redwoods-in-california.jpeg	0.49	06/25/2023 00:00:04	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Original/redwoods-in-california.jpeg
5	background-twin-peaks.jpeg	0.11	06/25/2023 16:35:13	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Original/background-twin-peaks.jpeg
6	mount-kilimanjaro.jpeg	0.16	06/25/2023 21:16:27	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Original/mount-kilimanjaro.jpeg
7	the-vancouver-house-building.jpeg	0.26	06/25/2023 18:17:29	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Original/the-vancouver-house-building.jpeg
8	skiing-in-quebec.jpeg	0.39	06/24/2023 13:09:04	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Original/skiing-in-quebec.jpeg
9	fog-in-montreal.jpeg	0.39	06/25/2023 21:57:33	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Original/fog-in-montreal.jpeg
10	background-half-moon-bay.jpeg	0.3	06/25/2023 16:45:58	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Original/background-half-moon-bay.jpeg
11	8.jpg	7.54	07/03/2023 21:08:00	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Images/8.jpg
12	9.jpg	5.76	07/03/2023 21:08:00	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Images/9.jpg
13	4.jpg	1.48	07/03/2023 21:08:00	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Images/4.jpg
14	5.jpg	4.52	07/03/2023 21:08:00	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Images/5.jpg
15	7.jpg	4.31	07/03/2023 21:08:00	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Images/7.jpg
16	6.jpg	2.24	07/03/2023 21:08:00	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Images/6.jpg
17	2.jpg	2.65	07/03/2023 21:08:00	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Images/2.jpg
18	3.jpg	5.66	07/03/2023 21:08:00	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Images/3.jpg
19	1.jpg	6.44	07/03/2023 21:08:00	jpeg	/Users/besher/Downloads/Milestone 1 Tests/Images/1.jpg
20	Midterm Notes copy.pdf	0.05	11/06/2022 21:05:00	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Midterm Notes copy.pdf
21	Module 7 Summary Exercises COMPU	0.48	11/13/2022 21:22:15	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Module 7 Summary Exercises COMPUTER ARCH & ASSEM LANGUA(
22	Midterm Notes.pdf	0.05	11/06/2022 21:05:00	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Midterm Notes.pdf
23	CS271 Style Guide.pdf	0.26	11/06/2022 19:05:00	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/CS271 Style Guide.pdf
24	Module 1 Summary Exercises COMPU	0.53	10/02/2023 16:36:00	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Module 1 Summary Exercises COMPUTER ARCH & ASSEM LANGUA(
25	CS271 Instructions Reference.pdf	0.88	10/09/2022 21:58:00	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/CS271 Instructions Reference.pdf
26	Module 5 Summary Exercises COMPU	0.56	10/30/2022 18:12:42	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Module 5 Summary Exercises COMPUTER ARCH & ASSEM LANGUA(
27	Module 4 Summary Exercises COMPU	0.34	10/23/2022 21:13:33	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Module 4 Summary Exercises COMPUTER ARCH & ASSEM LANGUA(
28	Module 2 Summary Exercises COMPU	0.58	10/09/2022 23:23:00	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Module 2 Summary Exercises COMPUTER ARCH & ASSEM LANGUA(
29	CS271 Schedule.pdf	0.14	10/02/2022 00:44:00	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/CS271 Schedule.pdf
30	Module 6 Summary Exercises COMPU	0.15	11/06/2022 00:05:00	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Module 6 Summary Exercises COMPUTER ARCH & ASSEM LANGUA(
31	Flags.pdf	0.02	10/23/2022 18:28:27	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Flags.pdf
32	Module 3 Summary Exercises COMPU	0.41	10/16/2022 22:36:36	pdf	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Module 3 Summary Exercises COMPUTER ARCH & ASSEM LANGUA(
33	Screen Recording 2022-10-02 at 2.55	9.65	10/02/2022 15:10:00	mp4	/Users/besher/Downloads/Milestone 1 Tests/CS 271/Screen Recording 2022-10-02 at 2.55.25 PM.mp4

- The 1st row is the column header and **MUST BE** named "File Name", "Size (MB)", "Date Modified", "File Format" and "File Path".
- The 2nd row is the filter parameters:
  - **File Name:** the microservice will only select files that match the content in this cell.
  - **Size (MB): MUST** start with either ">" or "<", followed by a space, followed by a float.
  - **Date Modified: MUST** start with either ">" or "<", followed by a space, followed by date format "mm/dd/yy hh:mm:ss" (month and day must be zero-padded into 2 digits).
  - **File Format:** the microservice will only select files that match the content in this cell.
  - Any of the above can be "null", the microservice will not filter "null" columns.
  - Combinations of filters have "AND" relationship.
  - The microservice will not filter by File Path.
- The 3rd row onwards are the content of the files to be filtered.

The microservice will do nothing as long as **'unfiltered.csv'** is empty. Once data with the above format is written to **'unfiltered.csv'**, the microservice will respond by writing the filtered list of files to **'filtered.csv'**. It will then empty **'unfiltered.csv'** and will become ready for the next call.

UML Sequence Diagram: