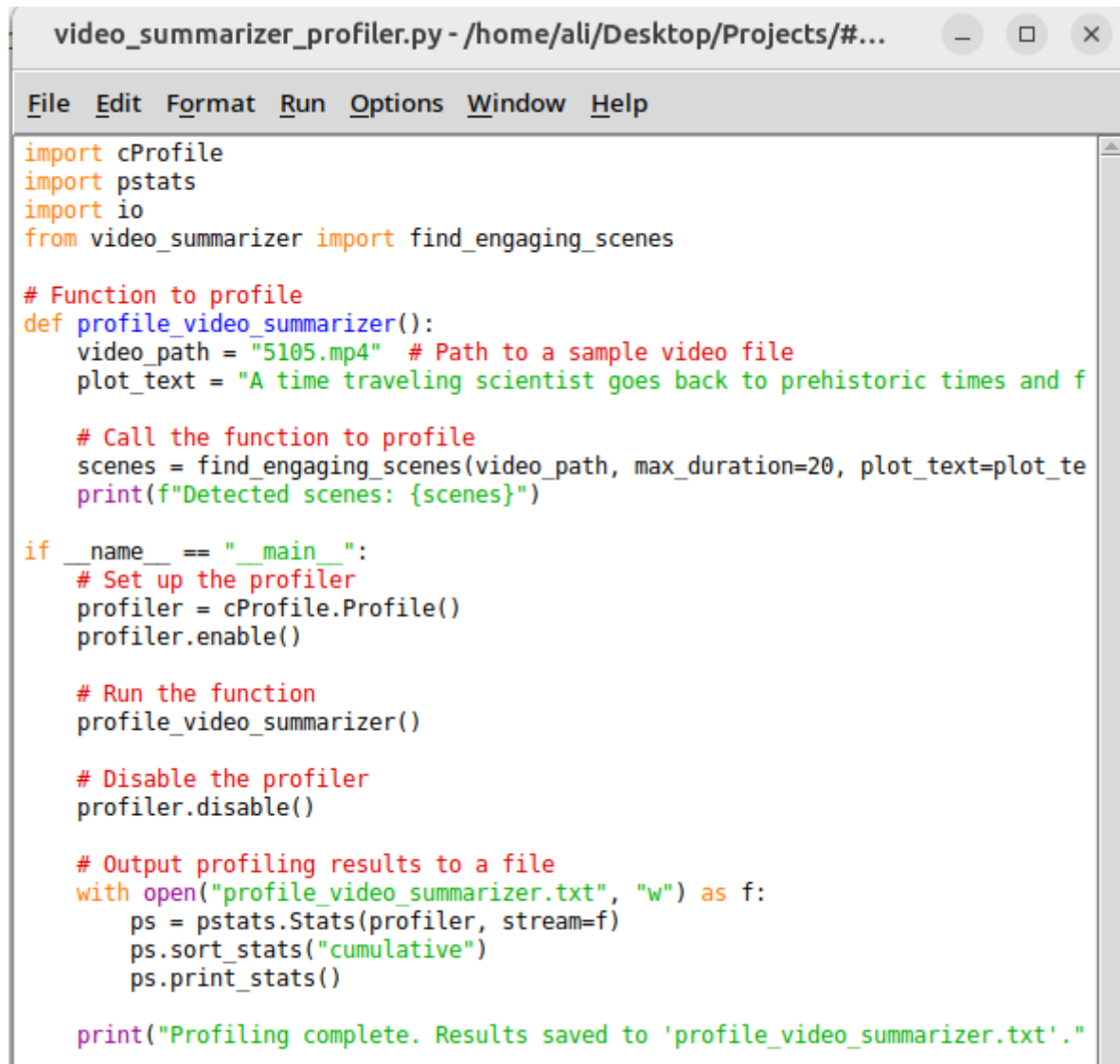Name: Ali Amer Ibrahim
Id: 1900881

Practical Assignment (1)

```
video_summarizer_profiler.py - /home/ali/Desktop/Projects/#...    _  □  ✕

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import cProfile
import pstats
import io
from video_summarizer import find_engaging_scenes

# Function to profile
def profile_video_summarizer():
    video_path = "5105.mp4"  # Path to a sample video file
    plot_text = "A time traveling scientist goes back to prehistoric times and f

    # Call the function to profile
    scenes = find_engaging_scenes(video_path, max_duration=20, plot_text=plot_te
    print(f"Detected scenes: {scenes}")

if __name__ == "__main__":
    # Set up the profiler
    profiler = cProfile.Profile()
    profiler.enable()

    # Run the function
    profile_video_summarizer()

    # Disable the profiler
    profiler.disable()

    # Output profiling results to a file
    with open("profile_video_summarizer.txt", "w") as f:
        ps = pstats.Stats(profiler, stream=f)
        ps.sort_stats("cumulative")
        ps.print_stats()

    print("Profiling complete. Results saved to 'profile_video_summarizer.txt'."
```

```
actual length: 140.32
start: 138.70523333333333    end:  138.7386
MoviePy - Writing audio in /tmp/tmpd09ws4x0.wav
chunk:   0%|          | 0/1 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 138.7386    end:  139.10563333333334
MoviePy - Writing audio in /tmp/tmp361uu0lk.wav
chunk:   0%|          | 0/9 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.10563333333334    end:  139.17236666666668
MoviePy - Writing audio in /tmp/tmplr2q4mbq.wav
chunk:   0%|          | 0/2 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.17236666666668    end:  139.20573333333334
MoviePy - Writing audio in /tmp/tmpjnqm8y3_.wav
chunk:   0%|          | 0/1 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.20573333333334    end:  139.27246666666667
MoviePy - Writing audio in /tmp/tmp9ls585dt.wav
chunk:   0%|          | 0/2 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.27246666666667    end:  139.4393
MoviePy - Writing audio in /tmp/tmpt53o6ise.wav
chunk:   0%|          | 0/4 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.4393    end:  139.5394
MoviePy - Writing audio in /tmp/tmplnsyu2nf.wav
chunk:   0%|          | 0/3 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.5394    end:  139.70623333333333
MoviePy - Writing audio in /tmp/tmpmu0autxd.wav
chunk:   0%|          | 0/4 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.70623333333333    end:  139.77296666666666
MoviePy - Writing audio in /tmp/tmpuvmgp6p2.wav
chunk:   0%|          | 0/2 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.77296666666666    end:  139.8397
MoviePy - Writing audio in /tmp/tmpveiqxlbh.wav
chunk:   0%|          | 0/2 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.8397    end:  139.8730666666666
MoviePy - Writing audio in /tmp/tmpwps9rf_h.wav
chunk:   0%|          | 0/1 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.8730666666666    end:  139.90643333333333
MoviePy - Writing audio in /tmp/tmplig3p9ta.wav
chunk:   0%|          | 0/1 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.90643333333333    end:  139.9398
MoviePy - Writing audio in /tmp/tmpik54gbmr.wav
chunk:   0%|          | 0/1 [00:00<?, ?it/s, now=None]    MoviePy - Done.
actual length: 140.32
start: 139.9398    end:  140.00653333333332
MoviePy - Writing audio in /tmp/tmp8uq16292.wav
chunk:   0%|          | 0/2 [00:00<?, ?it/s, now=None]    MoviePy - Done.
Detected scenes: [(0, 0.3336666666666667), (0.3336666666666667, 0.4004000000000003), (0.4004000000000003, 0.4337666666666667), (0.4337666666666667, 0.4671333333333334), (0.4671333333333334, 0.5005000000000001), (0.5005000000000001, 2.0687333333333333
), (2.0687333333333333, 2.3023000000000002), (2.3023000000000002, 2.3356666666666666), (2.3356666666666666, 2.4024), (2.4024, 2.4357666666666667), (2.4357666666666667, 2.4691333333333333), (2.4691333333333333, 2.5025), (2.5025, 3.9372666666666667), (3.9372666666
666667, 5.3386666666666667), (5.3386666666666667, 6.9069), (6.9069, 8.4084), (8.4084, 10.410400000000001), (10.410400000000001, 12.4124), (12.4124, 14.481133333333334), (35.1351, 35.16846666666667), (37.6376, 38.37166666666667), (44.878166666666665, 44.94490
0000000004), (63.83043333333333, 63.8638), (76.24283333333334, 77.077), (106.73996666666667, 107.2071), (130.8307, 134.16736666666668)]
Profiling complete. Results saved to 'profile_video_summarizer.txt'.
```

ncalls	tottime	percall	cumtime	percall	filename:lineno(function)
114/111	0.3622	0.003263	0.3658	0.003295	~:0(<built-in method _imp.create_dynamic>)
3336	0.2364	7.087e-05	0.2364	7.087e-05	~:0(<built-in method marshal.loads>)
5475/0	0.1644	0	0	0	~:0(<built-in method builtins.exec>)
9184/8953	0.0955	1.067e-05	0.7497	8.374e-05	~:0(<built-in method builtins.__build_class__>)
257	0.08075	0.0003142	0.08105	0.0003154	module.py:473(__init__)
312	0.07293	0.0002338	0.08548	0.000274	~:0(<method 'to' of 'torch._C.TensorBase' objects>)
8271	0.06503	7.863e-06	0.06686	8.083e-06	<frozen importlib._bootstrap>:645(parent)
445796/443030	0.05692	1.285e-07	0.06439	1.453e-07	~:0(<built-in method builtins.isinstance>)
18174	0.05333	2.934e-06	0.05341	2.939e-06	~:0(<built-in method posix.stat>)
2140	0.05277	2.466e-05	0.1085	5.07e-05	_ops.py:1047(__getattr__)
7180	0.05058	7.044e-06	0.09376	1.306e-05	inspect.py:875(cleandoc)
246365/246293	0.04686	1.903e-07	0.1133	4.6e-07	~:0(<built-in method builtins.getattr>)
3336	0.04617	1.384e-05	0.2853	8.551e-05	<frozen importlib._bootstrap_external>:751(_compile_bytecode)
27050	0.03942	1.457e-06	0.03942	1.457e-06	~:0(<built-in method posix.lstat>)
8313	0.038	4.571e-06	0.038	4.571e-06	<frozen importlib._bootstrap>:79(__init__)
3338	0.03538	1.06e-05	0.03538	1.06e-05	~:0(<built-in method _io.open_code>)
192937	0.03377	1.75e-07	0.03377	1.75e-07	~:0(<method 'startswith' of 'str' objects>)
34730/33064	0.03017	9.125e-07	0.05373	1.625e-06	~:0(<built-in method __new__ of type object at 0xa43b40>)
8313	0.03	3.609e-06	0.1229	1.478e-05	<frozen importlib._bootstrap>:304(acquire)
2152/559	0.02969	5.311e-05	0.08804	0.0001575	_parser.py:512(_parse)
28271	0.029	1.026e-06	0.04864	1.721e-06	<frozen posixpath>:71(join)
4478	0.02897	6.47e-06	0.126	2.813e-05	<frozen importlib._bootstrap_external>:1593(find_spec)
332116/327880	0.0282	8.601e-08	0.02906	8.862e-08	~:0(<built-in method builtins.len>)