Assignment 2

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Experiment Title: System Startup, Process Creation, and Termination Simulation in Python

Implementation:

```
import multiprocessing
import time
import logging

# Setup logger
logging.basicConfig(
    filename='process_log.txt',
    level=logging.INFO,
    format='%(asctime)s - %(processName)s - %(message)s'
)

# Dummy function to simulate a task
def system_process(task_name):
    logging.info(f"{task_name} started")
    time.sleep(2)
    logging.info(f"{task_name} ended")

if __name__ == '__main__':
```

```
print("System Starting...")

# Create processes

p1 = multiprocessing.Process(target=system_process, args=('Process-1',))

p2 = multiprocessing.Process(target=system_process, args=('Process-2',))


# Start processes

p1.start()

p2.start()


# Wait for processes to complete

p1.join()

p2.join()


print("System Shutdown.")
```

Output: