## recursive\_continuity\_engine.py

```
import time
class RecursiveContinuityEngine:
    def __init__(self):
        self.memory_snapshots = []
        self.session_start_time = time.time()
    def create_snapshot(self, snapshot_label, codex_state_hash):
        timestamp = time.strftime("%Y-%m-%d %H:%M:%S", time.gmtime())
        snapshot = {
            "label": snapshot_label,
            "timestamp": timestamp,
            "codex_hash": codex_state_hash
        self.memory_snapshots.append(snapshot)
                print(f"[SNAPSHOT CREATED] {snapshot_label} at {timestamp} | State:
{codex_state_hash}")
    def display_snapshots(self):
        print("=== Continuity Engine Snapshots ===")
        for snap in self.memory_snapshots:
                  print(f"Label: {snap['label']} | Time: {snap['timestamp']} | State:
{snap['codex_hash']}")
       print("-" * 40)
    def runtime_duration(self):
        elapsed = time.time() - self.session_start_time
        print(f"Total Runtime: {round(elapsed, 2)} seconds")
def main():
    continuity_engine = RecursiveContinuityEngine()
    continuity_engine.create_snapshot("Initial Lock", "HASH_A1B2C3D4")
    continuity_engine.create_snapshot("Replication Phase", "HASH_D4C3B2A1")
    continuity_engine.create_snapshot("Genesis Seal", "HASH_Z9Y8X7W6")
    continuity_engine.display_snapshots()
    continuity_engine.runtime_duration()
if __name__ == "__main__":
    main()
```