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import csv
import os
import time
from classes import
def setup_test_files():
                                      test CSV files with sample data"""
          Create staff_details.csv if it doesn't exist
f not os.path.exists('staff_details.csv'):
with open('staff_details.csv', 'w', newline='') as f:
writer = csv.writer(f)
                     writer = csv.writer(f)
writer.writerow(['staff_id', 'first_name', 'last_name', 'status', 'time_elapsed'])
writer.writerow(['101', 'John', 'Doe', 'Out of Office', '0'])
writer.writerow(['102', 'Jane', 'Smith', 'Out of Office', '0'])
          Create call details.csv if it doesn't exist
      # Create call_details.csv if it doesn't exist
if not os.path.exists('call_details.csv'):
    with open('call_details.csv', 'w', newline='') as f:
        writer = csv.writer(f)
        writer.writerow(['call_id', 'status', 'time_elapsed', 'sat_score', 'handler_id'])
        writer.writerow(['1001', 'Pending', '0', '0.8', '0'])
        writer.writerow(['1002', 'Pending', '0', '0.6', '0'])
def test_manager_functions():
    """Test all Manager class functions"""
    print("\n=== TESTING MANAGER FUNCTIONS ===")
       # Initialize manager with some staff
       manager = Manager(id=1, first_name="Alice", last_name="Johnson", staff_list=[101, 102])
       # Test view staff details
       print("\nViewing staff details:")
manager.view_staff_detail(101)
       manager.view_staff_detail_selected(102, ['first_name', 'last_name'])
      # Test add staff
print("\nAdding new staff:")
manager.add_staff(103, "Bob", "Williams")
manager.add_staff(103, "Bob", "Williams") # Should show exists message
      # Test edit staff name
print("\nEditing staff name:")
manager.edit_staff_name(103, "Robert", "Williams")
manager.view_staff_detail_selected(103, ['first_name', 'last_name'])
       # Test remove staff
print("\nRemoving staff:")
       manager.remove staff(103)
       manager.view_staff_detail(103)
def test_staff_functions():
    print("\n=== TESTING STAFF FUNCTIONS ===")
       # Initialize staff member
staff = Staff(
              id=101,
              first_name="John",
              last name="Doe".
              manager_id=1,
calls_taken=0,
              successful calls=0
             failed_calls=0,
target_successful_calls=10,
             working_time_elapsed=0,
avg_sat_score=0,
call_status="Free"
       # Initialize test calls
       call1 = Call(id=1001, status="Pending")
call2 = Call(id=1002, status="Pending")
       # Test workday functions
print("\nTesting workday functions:")
       staff.start_workday()
time.sleep(10) # Simulate working
      # Test call handling
print("\nAccepting and ending calls:")
staff.accept_call(call1)
print(f"Call 1 status: {call1.status}, Handler: {call1.handler_id}")
time.sleep(20)
       staff.end_call(call1, 0.56)
print(f"Call 1 status: {call1.status}, Duration: {call1.time_elapsed:.2f}s")
       staff.accept call(call2)
       time.sleep(10
       staff.end_call(call2, 0.9)
       print(f"Call 1 status: {call1.status}, Duration: {call1.time_elapsed:.2f}s")
       # Test call history
print("\nViewing call history:")
       staff.see_call_history()
       # End workday
staff.end_workday()
       print(f"National calls taken: {staff.calls_taken}")
print(f"Successful calls: {staff.successful_calls}")
print(f"Failed calls: {staff.failed_calls}")
def main():
       setup_test_files()
              test_manager_functions()
              test_staff_functions()
              print("\n=== FINAL STAFF DETAILS ===")
              with open('staff_details.csv', 'r') as f:
    print(f.read())
              print("\n=== FINAL CALL DETAILS ===")
with open('call_details.csv', 'r') as f:
                    print(f.read())
       except Exception as e:
             print(e)
       finally:
```

pass

if __name__ == "__main__":
 main()