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Roll No:TCOB13

Assignment No:11

Login\_log.txt

user1 2025-04-15 08:00:00 2025-04-15 10:00:00

user2 2025-04-15 09:00:00 2025-04-15 12:30:00

user1 2025-04-15 13:00:00 2025-04-15 14:00:00

user3 2025-04-15 10:30:00 2025-04-15 11:00:00

mapper.py

#!/usr/bin/env python3

import sys

from datetime import datetime

for line in sys.stdin:

    parts = line.strip().split()

    if len(parts) != 5:

        continue

    user, login\_date, login\_time, logout\_date, logout\_time = parts

    login = datetime.strptime(f"{login\_date} {login\_time}", "%Y-%m-%d %H:%M:%S")

    logout = datetime.strptime(f"{logout\_date} {logout\_time}", "%Y-%m-%d %H:%M:%S")

    duration = (logout - login).total\_seconds()

    print(f"{user}\t{duration}")

reducer.py

#!/usr/bin/env python3

import sys

user\_total = {}

for line in sys.stdin:

    user, duration = line.strip().split('\t')

    duration = float(duration)

    user\_total[user] = user\_total.get(user, 0) + duration

max\_time = max(user\_total.values())

for user, total in user\_total.items():

    if total == max\_time:

        print(f"{user}\t{total}")

OUTPUT:  
PS C:\Users\Gaytri Gosavi\OneDrive\Desktop\DSBDA practical\prac11> type login\_log.txt | python mapper.py | sort | python reducer.py

user2 12600.0