

# CurrentUsers

March 29, 2020

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In [ ]: def get_event_date(event):
        return event.date

def current_users(events):
    events.sort(key=get_event_date)
    machines = {}
    for event in events:
        if event.machine not in machines:
            machines[event.machine] = set()
        if event.type == "login":
            machines[event.machine].add(event.user)
        elif event.type == "logout":
            machines[event.machine].remove(event.user)
    return machines

def generate_report(machines):
    for machine, users in machines.items():
        if len(users) > 0:
            user_list = ", ".join(users)
            print("{}: {}".format(machine, user_list))
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In [ ]: class Event:
        def __init__(self, event_date, event_type, machine_name, user):
            self.date = event_date
            self.type = event_type
            self.machine = machine_name
            self.user = user
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In [ ]: events = [
        Event('2020-01-21 12:45:56', 'login', 'myworkstation.local', 'jordan'),
        Event('2020-01-22 15:53:42', 'logout', 'webserver.local', 'jordan'),
        Event('2020-01-21 18:53:21', 'login', 'webserver.local', 'lane'),
        Event('2020-01-22 10:25:34', 'logout', 'myworkstation.local', 'jordan'),
        Event('2020-01-21 08:20:01', 'login', 'webserver.local', 'jordan'),
        Event('2020-01-23 11:24:35', 'login', 'mailserver.local', 'chris'),
    ]
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