Project 1 Report

Group Members

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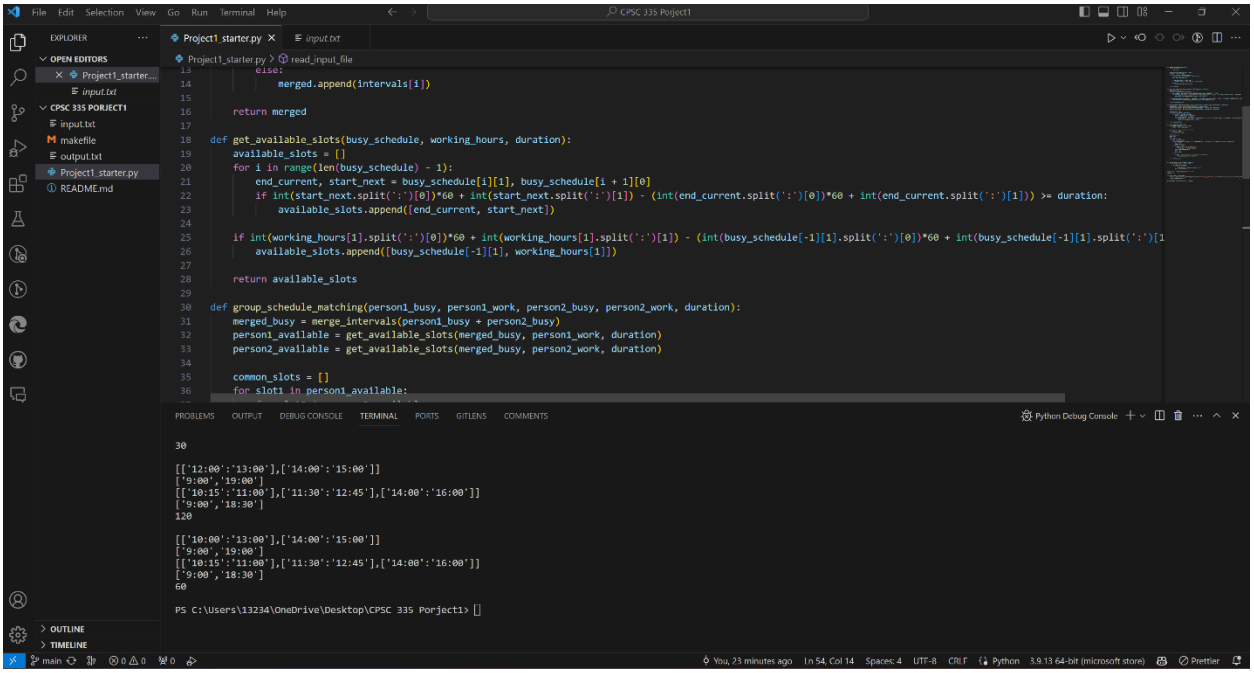
https://github.com/JosephChavxz/CPSC335-Project1

Screenshot:



Pseudocode:

```
  # Find slots between busy intervals
   for i in range(len(merged_busy)-1): /1
      if merged_busy[i+1][0] - merged_busy[i][1] >= meeting_duration: /1
         available_slots.append([merged_busy[i][1], merged_busy[i+1][0]]) /1

   # Find slots after the last busy interval until working hours end
   if working_end - merged_busy[-1][1] >= meeting_duration: /1
      available_slots.append([merged_busy[-1][1], working_end]) /1
  return available_slots
def find_common_available_slots(persons, meeting_duration):
   merged_busy = []

# Merge all busy schedules of persons
   for person in persons:
      merged_busy = merge_intervals(merged_busy + person['busy_schedule']) O(n log n)

 # Find the common working hours
   common_working_start = max(person['working_hours'][0] for person in persons) O(p)
   common_working_end = min(person['working_hours'][1] for person in persons) O(p)

   # Find all available slots
   all_available_slots = find_available_slots(
      merged_busy,
      [common_working_start, common_working_end],
      meeting_duration
   )
   return all_available_slots
```