

## Week 2

### Question 1:

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_1_the_mountain_peak_challenge"
Number of ways of climbing mountain: 8
Time: 0.0001270771026611328 sec

PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_1_the_mountain_peak_challenge"
Number of ways of climbing mountain: 1836311903
Time: 0.0001323223114013672 sec

PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_1_the_mountain_peak_challenge"
Number of ways of climbing mountain: 2
Time: 0.0001220703125 sec
```

### Question 2:

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_2_balanced_sales_challenge.py"
Array: [1, 5, 11, 5]
Can be balanced: True

PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_2_balanced_sales_challenge.py"
Array: [1, 3, 5]
Can be balanced: False
```

### Question 3:

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_3_mirror_quest.py"
Input string: bbabcbcab
Length of longest palindromic subsequence: 7

PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_3_mirror_quest.py"
Input string: GEEKS
Length of longest palindromic subsequence: 2
```

### Question 4:

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_4_the_royal_treasury.py"
Coins: [1, 2, 3]
Target sum: 4
Total combinations to reach the sum: 4

PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_4_the_royal_treasury.py"
Coins: [2, 5, 3, 6]
Target sum: 10
Total combinations to reach the sum: 5
```

### Question 5:

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_5_master_scheduler.py"
Booking intervals: [[1, 2], [2, 3], [3, 4], [1, 3]]
Minimum number of cancellations required: 1
```

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_5_master_scheduler.py"
Booking intervals: [[1, 3], [1, 3], [1, 3]]
Minimum number of cancellations required: 2
```

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_5_master_scheduler.py"
Booking intervals: [[1, 2], [5, 10], [18, 35]]
Minimum number of cancellations required: 0
```

## Question 6:

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_6_high_stakes_freelancer.py"
Deadlines: [4, 1, 1, 1]
Profits: [20, 10, 40, 30]
Maximum jobs: 2
Maximum profit: 60
```

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_6_high_stakes_freelancer.py"
Deadlines: [2, 1, 2, 1, 1]
Profits: [100, 19, 27, 25, 15]
Maximum jobs: 2
Maximum profit: 127
```

## Question 7:

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_7_koko_banana_buffet.py"
Banana piles: [5, 10, 3]
Hours available: 4
Minimum eating speed to finish in time: 5 bananas/hour
```

```
PS E:\NED University\Github\winter-activity-Logic-Forge-CIS-Community> & C:/Users/Lenovo/AppData/Local/Programs/Python/Python313/python.exe "e:/NED University/Github/winter-activity-Logic-Forge-CIS-Community/Week 2/challenge_7_koko_banana_buffet.py"
Banana piles: [5, 10, 15, 20]
Hours available: 7
Minimum eating speed to finish in time: 10 bananas/hour
```