```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a1q1.py
Name = Ritesh Dhekane
Enter first number: 78
Enter second number: 56
GCD is: 2
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a1q2.py
Name = Ritesh Dhekane
3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97 101 103 107 109 113 127 131 137 139 149 151 157 163 167 173 179 181 191 193 197 199 211 22
3 227 229 233 239 241 251 257 263 269 271 277 281 283 293 307 311 313 317 331 337 347 349 353 359 367 373 379 383 389 397 401 409 419 421 431 433 439 443 449 4
57 461 463 467 479 487 491 499 503 509 521 523 541 547 557 563 569 571 577 587 593 599 601 607 613 617 619 631 641 643 647 653 659 661 673 677 683 691 701 709
719 727 733 739 743 751 757 761 769 773 787 797 809 811 821 823 827 829 839 853 857 859 863 877 881 883 887 907 911 919 929 937 941 947 953 967 971 977 983 991
997
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a1q3.py
Name = Ritesh Dhekane
Enter a number: 12
Factorial of 12 is: 479001600
PS E:\Ritesh\MCA\Assignments\Python Programming>
PS E:\Ritesh\MCA\Assignments\Python Programming>
PS E:\Ritesh\MCA\Assignments\Python Programming>
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a1q4.py
Name = Ritesh Dhekane
A
A B
A B C
A B C D
A B C D E
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a1q5.py
Name = Ritesh Dhekane
2002 2009 2016 2023 2037 2044 2051 2058 2072 2079 2086 2093 2107 2114 2121 2128 2142 2149 2156 2163 2177 2184 2191 2198 2212 2219 2226 2233 2247 2254 2261 2268
2282 2289 2296 2303 2317 2324 2331 2338 2352 2359 2366 2373 2387 2394 2401 2408 2422 2429 2436 2443 2457 2464 2471 2478 2492 2499 2506 2513 2527 2534 2541 254
8 2562 2569 2576 2583 2597 2604 2611 2618 2632 2639 2646 2653 2667 2674 2681 2688 2702 2709 2716 2723 2737 2744 2751 2758 2772 2779 2786 2793 2807 2814 2821 28
28 2842 2849 2856 2863 2877 2884 2891 2898 2912 2919 2926 2933 2947 2954 2961 2968 2982 2989 2996 3003 3017 3024 3031 3038 3052 3059 3066 3073 3087 3094 3101 3
108 3122 3129 3136 3143 3157 3164 3171 3178 3192 3199
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a1q6.py
Enter a number: 78
Number of digits is: 2
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a1q6.py
Name = Ritesh Dhekane
Enter a number: 546879
Number of digits is: 6
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a1q7.py
Name = Ritesh Dhekane
Enter a number: 546
Reversed number is: 645
PS E:\Ritesh\MCA\Assignments\Python Programming>
PS E:\Ritesh\MCA\Assignments\Python Programming>
PS E:\Ritesh\MCA\Assignments\Python Programming>
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q8.py
Enter a string of length 10: qwertyuiop
False
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q8.py
Name = Ritesh Dhekane
Enter a string of length 10: aaaaabbbbb
True
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q9.py
Enter a string: Hi i am Ritesh
Length of string: 14
Reversed string: hsetiR ma i iH
Number of vowels: 5
Is palindrome?: False
Number of words: 4
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q10.py
Name = Ritesh Dhekane
Enter number of elements in list: 5
Enter element: 54
Enter element: 9
Enter element: 75
Enter element: 45
Enter element: 4
Sum of elements: 187
Maximum element: 75
Minimum element: 4
Reversed list: [4, 45, 75, 9, 54]
Count of even numbers: 2
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q11.py
Name = Ritesh Dhekane
Enter number of elements in tuple: 4
Enter element: 8
Enter element: 7
Enter element: 6
Enter element: 1
Tuple entered: (8, 7, 6, 1)
Length of tuple: 4
Sum of elements: 22
Maximum element: 8
Minimum element: 1
Count of even numbers: 2
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q12.py
Name = Ritesh Dhekane
Enter number of key-value pairs: 3
Enter key: a
Enter value: 5
Enter key: b
Enter value: 10
Enter key: c
Enter value: 15

Dictionary entered: {'a': 5, 'b': 10, 'c': 15}
Keys in dictionary:
a
b
c
Values in dictionary:
5
10
15
Length of dictionary: 3
Enter key to search: b
Key found! Value = 10
Sum of all values: 30
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q13.py
Name = Ritesh Dhekane
Enter number of elements in list: 4
Enter element: 5
Enter element: 9
Enter element: 4
Enter element: 8
List entered: [5, 9, 4, 8]
Sum of all elements: 26
Product of all elements: 1440
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q14.py
Name = Ritesh Dhekane
Enter number of elements in first list: 2
Enter element: 1
Enter element: 6
Enter number of elements in second list: 3
Enter element: 4
Enter element: 5
Enter element: 9
First list: [1, 6]
Second list: [4, 5, 9]
Common elements: []
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q15.py
Name = Ritesh Dhekane
Enter number of elements in first set: 4
Enter element: 5
Enter element: 7
Enter element: 8
Enter element: 4
Enter number of elements in second set: 2
Enter element: 5
Enter element: 7

First set: {'8', '7', '5', '4'}
Second set: {'7', '5'}

Union: {'8', '4', '7', '5'}
Intersection: {'7', '5'}
Difference (set1 - set2): {'8', '4'}
Symmetric Difference: {'8', '4'}
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q16.py
Sorted by key (ascending): {'apple': 5, 'banana': 2, 'cherry': 7, 'date': 4}
Sorted by key (descending): {'date': 4, 'cherry': 7, 'banana': 2, 'apple': 5}
Sorted by value (ascending): {'banana': 2, 'date': 4, 'apple': 5, 'cherry': 7}
Sorted by value (descending): {'cherry': 7, 'apple': 5, 'date': 4, 'banana': 2}
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS                          powershell  + ∨  ⊟  🗑  ⋯  |  :: ✕

● PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q17.py
  Enter a string: I am Ironman!
  Character count dictionary: {'I': 2, ' ': 2, 'a': 2, 'm': 2, 'r': 1, 'o': 1, 'n': 2, '!': 1}
❖ PS E:\Ritesh\MCA\Assignments\Python Programming> 
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS

● PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q18.py
  Enter lower range: 10
  Enter upper range: 35
  All elements are within the range.
❖ PS E:\Ritesh\MCA\Assignments\Python Programming> 
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS                          powershell  + ∨  ⊟  🗑  ⋯  |  :: ✕

● PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q19.py
  Name = Ritesh Dhekane
  Two-digit combinations: [12, 13, 14, 21, 23, 24, 31, 32, 34, 41, 42, 43]
  Three-digit combinations: [123, 124, 132, 134, 142, 143, 213, 214, 231, 234, 241, 243, 312, 314, 321, 324, 341, 342, 412, 413, 421, 423, 431, 432]
❖ PS E:\Ritesh\MCA\Assignments\Python Programming> 
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS

● PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q20.py
  Name = Ritesh Dhekane
  Enter an integer number: 8
  {1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}
❖ PS E:\Ritesh\MCA\Assignments\Python Programming> 
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS                          powershell  + ∨  ⊟  🗑  ⋯  |  :: ✕

● PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q21.py
  Name = Ritesh Dhekane
  Enter name, age, height (or press Enter to stop): ritesh,22,175
  Enter name, age, height (or press Enter to stop): Amit,25,180
  Enter name, age, height (or press Enter to stop): Rahul,20,168
  Enter name, age, height (or press Enter to stop):

  Sorted data:
  ('Amit', 25, 180)
  ('Rahul', 20, 168)
  ('ritesh', 22, 175)
❖ PS E:\Ritesh\MCA\Assignments\Python Programming> 
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS                          powershell  + ∨  ⊟  🗑  ⋯  |  :: ✕

● PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q22.py
  Name = Ritesh Dhekane
  Enter a line of text: python is fun and python is powerful

  Word frequency (sorted by word):
  {'and': 1, 'fun': 1, 'is': 2, 'powerful': 1, 'python': 2}
❖ PS E:\Ritesh\MCA\Assignments\Python Programming> 
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS                          powershell  + ∨  ⊟  🗑  ⋯  |  :: ✕

● PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q23.py
  Name = Ritesh Dhekane
  Output: 1 , 4
❖ PS E:\Ritesh\MCA\Assignments\Python Programming> 
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS                          powershell  + ∨  ⊟  🗑  ⋯  |  :: ✕

● PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q24.py
  Name = Ritesh Dhekane
  Enter student's name: Ritesh Dhekane
  Enter age: 21
  Enter academic percentage: 84
  Ritesh Dhekane is eligible for the student loan.
❖ PS E:\Ritesh\MCA\Assignments\Python Programming> 
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q25.py
Name = Ritesh Dhekane
Duplicate elements are: [1, 2, 3]
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q26.py
Name = Ritesh Dhekane
Enter number of rows: 2
Enter number of columns: 2

Enter elements for Matrix 1:
Enter element [1][1]: 4
Enter element [1][2]: 5
Enter element [2][1]: 8
Enter element [2][2]: 7

Enter elements for Matrix 2:
Enter element [1][1]: 9
Enter element [1][2]: 4
Enter element [2][1]: 5
Enter element [2][2]: 2

Resultant Matrix after Addition:
[13, 9]
[13, 9]
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q27.py
Name = Ritesh Dhekane
Input List: ['a', 'b', 2, 43, 'Hi', 900, 'xyz']
Output List (only digits): [2, 43, 900]
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q28.py
Name = Ritesh Dhekane
Original List: [1, 2, 2, 3, 4, 4, 5, 1, 6]
Unique Elements: [1, 2, 3, 4, 5, 6]
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q29.py
Name = Ritesh Dhekane
Original List: [10, 20, 30, 40, 50]
Reversed List: [50, 40, 30, 20, 10]
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q30.py
Name = Ritesh Dhekane
Enter first string: Ironman
Enter second string: Spiderman
String with maximum length: Spiderman
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q31.py
Name = Ritesh Dhekane
Enter a string: Captain America
Output 1: {'C': 1, 'a': 3, 'p': 1, 't': 1, 'i': 2, 'n': 1, ' ': 1, 'A': 1, 'm': 1, 'e': 1, 'r': 1, 'c': 1}
Output 2: {1: ['C', 'p', 't', 'n', ' ', 'A', 'm', 'e', 'r', 'c'], 3: ['a'], 2: ['i']}
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q32.py
Name = Ritesh Dhekane
Given dictionary :
L : ['Lion']
D : ['Donkey', 'Deer']
E : ['Elephant']

Number of animals : 4
Largest : D
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q33.py
Name = Ritesh Dhekane
Enter number of terms: 23
Fibonacci sequence up to 23 terms:
0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946 17711
PS E:\Ritesh\MCA\Assignments\Python Programming>
```

```
PS E:\Ritesh\MCA\Assignments\Python Programming> python .\a2q34.py
Name = Ritesh Dhekane
List: [2, 4, 7, 9, 11, 15, 17]
Prime check result: [True, False, True, False, True, False, True]
PS E:\Ritesh\MCA\Assignments\Python Programming>
```