/usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/2.multiplication table.py"

(base) weigi@Weigis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weigi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/2.multiplication table.py"

Multiplication table from 1 to 12

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 9 10 | 0 1: | 1 12 | 2 |
|----|---|----|----|----|----|----|----|----|----|-----|------|------|------|---|
| 1 | Ĺ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 2 | Ĺ | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | |
| 3 | Ĭ | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | |
| 4 | Ĺ | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 | |
| 5 | Ĺ | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | |
| 6 | Ĺ | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | |
| 7 | Ĺ | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 | |
| 8 | Ĺ | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 | |
| 9 | Ĭ | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 | |
| 10 | Ī | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | |
| 11 | Ĭ | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 | |
| 12 | Ī | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 | |

(base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/3.palindrome.py"
 Please input a string, if you want to quit please type 'q': dsafd
 The string 'dsafd' is not a palindrome

Please input a string, if you want to quit please type 'q' : aba

The string 'aba' is a palindrome

Please input a string, if you want to quit please type 'q' : efthe

The string 'efthe' is not a palindrome

Please input a string, if you want to guit please type 'g': g

The program exits

- (base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/4.combine.py"
 Enter the first list: 123
 Enter the second list: abc
- Enter the second tist; and
- after the combine, the string is :['1', 'a', '2', 'b', '3', 'c']
- (base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/4.combine.py"

```
      10 |
      10 20 30 40 50 60 70 80 90 100 110 120

      11 |
      11 22 33 44 55 66 77 88 99 110 121 132

      12 |
      12 24 36 48 60 72 84 96 108 120 132 144
```

(base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/3.palindrome.py"
 Please input a string, if you want to guit please type 'g': dsafd

The string 'dsafd' is not a palindrome

Please input a string, if you want to quit please type 'q' : aba

The string 'aba' is a palindrome

Please input a string, if you want to quit please type 'q' : efthe

The string 'efthe' is not a palindrome

Please input a string, if you want to quit please type 'q' : q

The program exits

(base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/4.combine.py"
 Enter the first list: 123
 Enter the second list: abc

after the combine, the string is :['1', 'a', '2', 'b', '3', 'c']

- (base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/4.combine.py"
 Enter the first list: 1234
 Enter the second list: abc
- Error: the length of the first list is different with the length of the second list
- (base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/5.Fibonacci numbers.py"
 The result of the first 100 Fibonacci numbers is [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946, 17711, 28657, 46368, 75025, 121393, 196418, 317811, 514229, 832040, 1346269, 2178309, 3524578, 5702887, 9227465, 14930352, 24157817, 39088169, 63245986, 102334155, 165580141, 2679142, 96, 433494437, 701408733, 1134903170, 1836311903, 2971215073, 4807526976, 7778742049, 12586269025, 20365011074, 32951280099, 53316291173, 86267571272, 139583862445, 225851433717, 365435296162, 591286729879, 956722026041, 1548008755920, 2504730781961, 4052739537881, 6557470319842, 10610209857723, 17167680177565, 2777789003528, 44945570212853, 72723460248141, 117669030460994, 190392490709135, 308061521170129, 498454011879264, 806515533049393, 1304969544928657, 2111485077978050, 3416454, 622906707, 5527939700884757, 8944394323791464, 14472334024676221, 23416728348467685, 37889062373143906, 61305790721611591, 99194853094755497, 160500643816367088, 259695496911122585, 420196140727489673, 679891637638612258, 1100087778366101931, 1779979416004714189, 2880067194370816120, 4660046610375530309, 7540113804746346429, 12200160415121876738, 19740274219868223167, 31940434634990099905, 51680708854858323072, 83621143489848422977, 135301852344706746049, 218922995834555169026, 354224, 8481792619150751
- (base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/6.year.py" Enter a year: 1993

1993 is not a leap year

• (base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/6.year.py" Enter a year: 4000

4000 is a leap year

• (base) weiqi@Weiqis-MacBook-Pro MET-CS673 % /usr/bin/python3 "/Users/weiqi/Desktop/Spring 2024/MET-CS673/MET-CS673/Homework1/6.year.py" Enter a year: sd34

Enter the correct format of the year. It should be an integer.

3425 is not a leap year

○ (base) weiqi@Weiqis—MacBook—Pro MET—CS673 %