

CS 673 Software Engineering
Spring 2024
Assignment 1 – Coding

Due: Before class on January 31.

Do not email homework, please submit on Blackboard. You should also take screenshots or recording of your assignment and submit. Post the code on GitHub and submit the link and the videos in a zip file. **This assignment must be done and submitted individually. You are NOT allowed to use any AI to help write these programs.**

Assignments:

1. Read all of chapters 1 and 2 before the next class.
2. Write a program that prints a multiplication table for numbers up to 12.
3. Write a program that asks a user to input a string and then determine if it's a palindrome. If it is, print out "The string <the string the user typed in> [is | is not] a palindrome. If the user types q, the program exits.
4. Write a program that asks the user to input two lists of equal length in the format: [a,b,c], [1,2,3]. The program should test that both lists are of equal length, if not, print out an error message. If they are the same length, combine the two lists by alternately taking elements and output the results. Using the input example above, the output would be: [a,1,b,2,c,3].
5. Write a program that computes the list of the first 100 Fibonacci numbers. The first two Fibonacci numbers are 1 and 1. The $n+1$ Fibonacci number is computed by adding the n -th and the $n-1$ -th Fibonacci number. The first few are therefore 1, 1, $1+1=2$, $1+2=3$, $2+3=5$, $3+5=8$. Print out the results.
6. Write a program that determines if an inputted year is a leap year.