

Programming Assignment 2

Task 1

Create a cpp file named “main.cpp” that defines two functions:

Function 1

- A string function named Add() that takes two string parameters.
- Both string parameters represent unsigned binary numbers.
- Return the sum of the two binary strings in its binary representation.
- If either string is not a binary number, return an empty string.
- Ensure both strings have same number of bits by padding the shorter string with 0s.
- Add(“1010”, “1111”) should return “11001”
- Add(“1001001”, “010”) should return “1001011”

Function 2

- A string function named TwosComp() that takes a constant string reference parameter.
- The string parameter represents a signed binary number.
- If the parameter is not a binary number, return an empty string.
- Return the two’s compliment of the parameter.

Task 2

Create a main function that tests your functions. Use numbers from Homework assignment 2.