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Understanding the problem: This problem is about letting the user input a string of chars during running the program, then make a program to change those chars to number in binary by –a. Also, letting the user input a string of 0s and 1s number during running the program by -b. Before turning them into ASCII value, the program should be able to check the user_input are 1s or 0s only, % 8 is 0, and after changing to the dec can't greater than 127 or smaller than 0.

Devising a plan: Step 1: Ask the user input a string of any chars during running the program Step 2: Changing the user_input to decimal and then, change the decimal to binary.

Step 3: Ask the user input a string of 0s or 1s only number during running the program. Step 4: Checking the user_input is 0s or 1s only or not, % 8 is 0, and after changing to the dec can't greater than 127 or smaller than 0. Step 5: Printing out the chars, which changed from the user_input by ASCII value.

The user can input –a or –b first, but they have to input two, like –a and –a, -a and –b.

Testing:

Command	Expected		Actural
a.out –a jen –b 1001000	011010100110010101101110	Invalid Input	Yes
a.out –a jen –b 0101010	011010100110010101101110	Invalid Input	Yes
a.out –a jen –b 01100110	01010101 0110101001100101	01101110 fU	Yes
a.out –a jen –a jen 01101	10100110010101101110 01101	0100110010101	1101110 Yes
a.out -b 01100110010101	01 -b 0110011001010101 fU	fU	Yes