a. For this project I found I had trouble with checking all but one of the standards. For instance, my function would edit all the standards correctly expect for the last. The number of nStandards would then be off by one. By tracing my program I found that this was because when shifting every row up, I would miss the first row that was shifted back since my index would increment. I fixed this issue by adding a flag variable which would increment outside of the loop.

b.

**editStandards**

if nStandards is 0 or negative

return 0

for word1 and word2, make all cstrings lower case

check standards for if distance is not positive

if negative, remove, and shift all after back, and nStandards--

Check if word has no chars, contains non letter

If so, Remove, shift all after back, nStandards--

Check if any standards after the current one have same w1 & w2

if they do check if distance value is lower

if it is then remove, shift all after back, nStandards--

if they do check if distance is higher

if it is, remove the current one, shift everything after current back, nStandards--

if they do check if distance is the same

if it is remove, shift all after back, nStandards--

return nStandards

**determineMatchLevel**

if nStandards 0 or -, return 0

make copy of jeet, removing non alpha chars, and any extra spaces between words, and making all letters lowercase

make jeetList array, go through jeetCopy

add chars from jeetCopy to jeetlist array row 1

if you come across a space, go to next row

for each standard

go through jeetList and see if w1 appears

if it does, search through the next distance number words to see if they are w2

if it is, count++, break out of this standard

if not break out of this standard

return count

c.

**editStandards**

negative nStandards

nStandards = -3

2 eccentric billionaire

4 space capsule

1 ELECTRIC CAR

3 tunnel-boring equipment

2 space capsule

1 Electric car

13 were eccentric

0 nStandards

nStandards = 0

2 eccentric billionaire

4 space capsule

1 ELECTRIC CAR

3 tunnel-boring equipment

2 space capsule

1 Electric car

Includes uppercase letters

nStandards = TEST1\_NSTANDARDS

2 eccentric billionaire

4 space capsule

1 ELECTRIC CAR

3 tunnelboring equipment

2 space capsule

1 Electric car

13 were eccentric

Includes distance which is not positive

nStandards = TEST1\_NSTANDARDS

-2 eccentric billionaire

4 space capsule

1 ELECTRIC CAR

3 tunnelboring equipment

2 space capsule

1 Electric car

13 were eccentric

Includes word with no characters

nStandards = TEST1\_NSTANDARDS

2 eccentric billionaire

4 space capsule

1 ELECTRIC

3 tunnelboring equipment

2 space capsule

1 Electric car

13 were eccentric

Includes a word with character that is not a letter

nStandards = TEST1\_NSTANDARDS

2 eccentric billionaire

4 space capsule

1 ELECTRIC CAR

3 tunnel-boring equipment

2 space capsule

1 Electric car

13 were eccentric

Two standards have same w1 and w2 values, lesser distance comes first

nStandards = TEST1\_NSTANDARDS

2 eccentric billionaire

2 space capsule

1 ELECTRIC CAR

3 tunnelboring equipment

4 space capsule

1 Electric car

13 were eccentric

Two standards have same w1 and w2 values, lesser distance comes second

nStandards = TEST1\_NSTANDARDS

2 eccentric billionaire

4 space capsule

1 ELECTRIC CAR

3 tunnelboring equipment

2 space capsule

1 Electric car

13 were eccentric

More than one match standards have same w1 and w2 values and distance

nStandards = TEST1\_NSTANDARDS

2 eccentric billionaire

4 space capsule

1 ELECTRIC CAR

3 tunnelboring equipment

2 space capsule

1 Electric car

1 eLecTriC car

**determineMatchLevel**

multiple spaces between words

jeet - " I'm upset that on Apr. 29th, 2022, my 2 brand-new BMW i7s were stolen!! "

uppercase letters

jeet - " I'm upset that on Apr. 29th, 2022, my 2 brand-new BMW i7s were stolen!! "

Non-alphabetic characters

jeet - " I'm upset that on Apr. 29th, 2022, my 2 brand-new BMW i7s were stolen!! "

Negative nStandards

nStandards = -5

jeet - " I'm upset that on Apr. 29th, 2022, my 2 brand-new BMW i7s were stolen!! "

nStandards of 0

nStandards = 0

jeet - " I'm upset that on Apr. 29th, 2022, my 2 brand-new BMW i7s were stolen!! "

No matches

nStandards = 2;

dist = { 1, 4, 2, 3, 2, 1, 13}

test1w1= {"eccentric", "space", "that", "tunnelboring", "space", "electric", "were”};

test1w2= {"billionaire", "capsule", "on", "equipment", "capsule", "car", "eccentric”};

jeet - " I'm upset that on Apr. 29th, 2022, my 2 brand-new BMW i7s were stolen!!"

One match

nStandards = 3;

dist =. { 1, 4, 2, 3, 2, 1, 13}

test1w1= {"eccentric", "space", "that", "tunnelboring", "space", "electric", "were”};

test1w2= {"billionaire", "capsule", "on", "equipment", "capsule", "car", "eccentric”};

jeet - " I'm upset that on Apr. 29th, 2022, my 2 brand-new BMW i7s were stolen!!"

Multiple matches of same standard

nStandards = 7;

dist = { 1, 4, 2, 3, 2, 1, 13}

test1w1= {"eccentric", "space", "that", "tunnelboring", "space", "electric", "were”};

test1w2= {"billionaire", "capsule", "on", "equipment", "capsule", "car", "eccentric”};

jeet - " I'm upset that on Apr. 29th, 2022, THAT ON my 2 brand-new BMW i7s were stolen!! That on "

Multiple matches of different standards

nStandards = 7;

dist = { 1, 4, 2, 3, 2, 1, 13}

test1w1= {"eccentric", "space", "that", "tunnelboring", "brandnew", "electric", "were”};

test1w2= {"billionaire", "capsule", "on", "equipment", "is", "car", "eccentric”};

jeet - " I'm upset that on Apr. 29th, 2022, THAT ON my 2 brand-new BMW i7s were stolen!! That on "