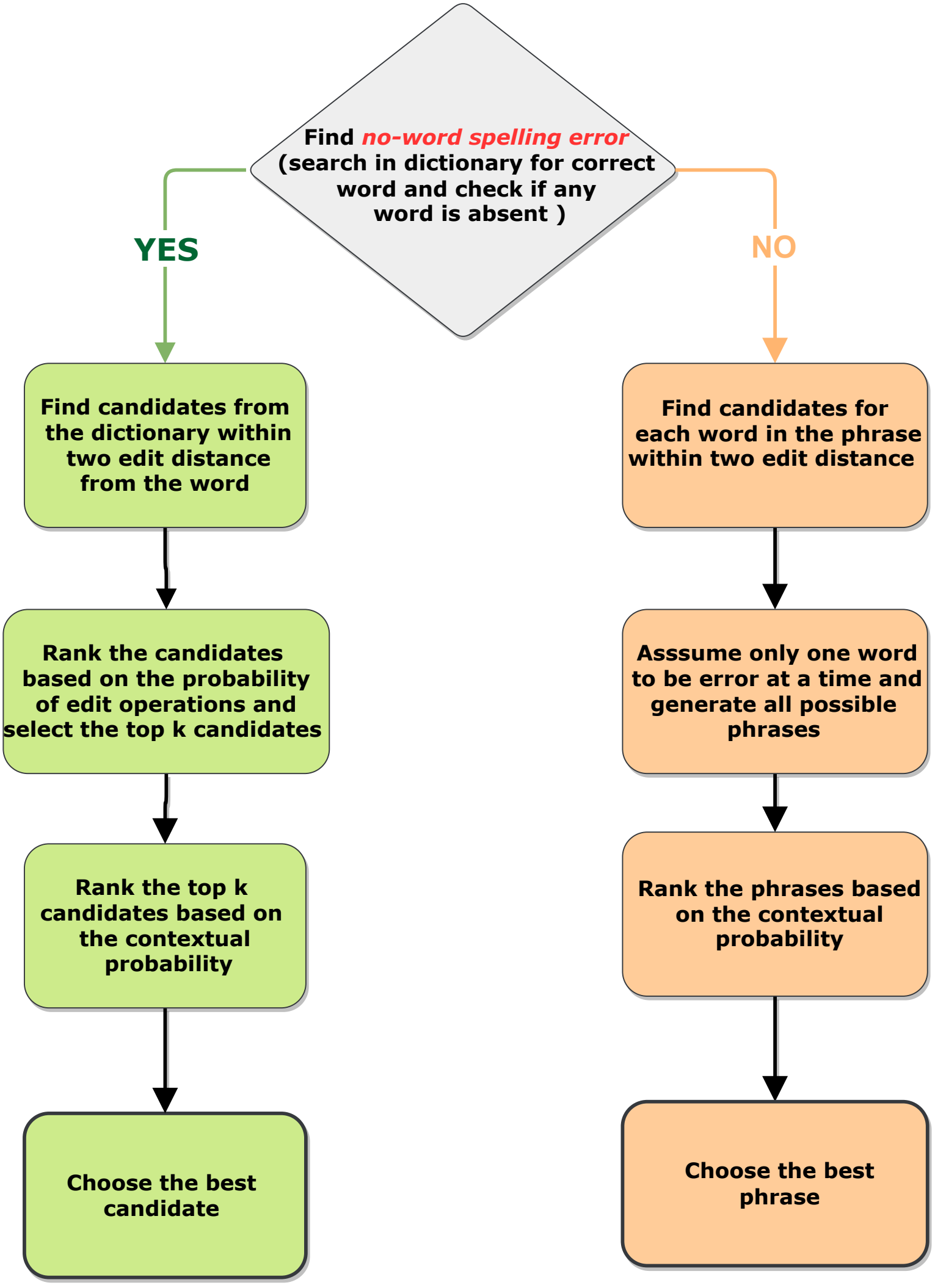
Spelling correction flow chart



"versatile acress whose"

(In above phrase we find that acress is not in the dictionary so we focus on finding the correct word for it)

Finding candidates from the dictionary within *one edit distance* from the word acress

actress
cress
caress
access
across
acres
acres

Rank the candidates based on the probability of edit operations and select the top k candidates

Rank	Correction	P(x|w)P(w) 10^9
1	across	2.8
2	actress	2.7
3	acres	1.0
4	acres	1.0
5	access	0.019
6	caress	0.0028
7	cress	0.00078

Ranking the *top 2* candidates (*actress and across*) according to contextual probability calculated using a bi gram model

Rank	Correction	Probability (using bi-gram model)
1	"versatile actress whose"	210 x 10^-10
2	"versatile across whose"	1 x 10^-10

Choose the best candidate

Choosing actress as the corrected word for acress

"two of thew"

(All the three words in the phrase are present in the dictionary so we are trying to find the real world error here)