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CSCI 572 HW 5 Report

1. Steps you followed to complete this assignment. Include the details of what tools and techniques you used to implement spelling correction and autocomplete.

Created Big.txt:
- Extracted text from several WSJ sites using online parsing sites and added the text into big.txt, which is the vocabulary for spell check and auto suggest.

Spell Correction:
- Used Norvig's spell check php version code to implement spell correction.
- When a user inputs an incorrect query and submits the page, the program checks to see if it's a valid word or not. If it's a valid word corresponding results are displayed otherwise the results of a valid word that was returned by the Norvig spell corrector will be shown. When this happens, a phrase with "Showing results for" and the corrected keyword gets displayed. Underneath that, another phrase "Show only for" and the keyword that the user typed in gets displayed. On click of the corrected keyword the results are displayed without any extra text being shown. When clicking on the keyword next to the phrase, "Show only for", the same query that was just run is re-run again and the same results are shown.

Auto complete:
- Used AJAX calls to get every letter inputted into the text box and sent it to a php.
- This php called the url to extract suggestions http://localhost:8983/solr/wsjSearchEngine/ suggest?wt=json&indent=tru e&q=" and sent it back to the home page.
- The results of auto complete are thus displayed in a menu bar.
- On select of a key word the corresponding results are displayed.

2. Analysis of the results: In this you should provide examples of misspelled terms that are correctly handled by your spelling correction program. You should also provide some examples of auto completion.
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Analysis of the results:
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5 examples of corrections:

```
iphonex - iphone
fixit - ifixit
rushia - russia
factbark- fastback
imigraton - immigration
```


5 examples of auto-completion:

```
poke
-----
poke
powerful
power
potential
poet

jad
-----
javascript
japan
jason
japanese
james

oba
-----
object
obama
obsesses
opacity
orange

sob
-------
sober
sophisticated
sopranos
soprano
soybean

donald trup
------
donald trup
donald true
donald trump
donald truncate
donald truth
```