**Autocomplete Service**

# Run server:

Run autocomplete\_server.go script with file name(provide full path if not in same directory) as a command line parameter.

e.g. *go run autocomplete\_server.go shakespeare-complete.txt*

# Search Complexity:

O(log n) – Binary Search

# Access URL:

Ex. *curl http://localhost:9000/autocomplete?term=th*

# Results:

## th:

["the","that","this","thou","thy","thee","they","then","there","their","them","than","these","th","think","thus","though","therefore","those","thine","three","thought","thing","things","thousand"]

## fr:

["from","france","friends","friend","french","free","friar","fresh","freely","frown","francis","frame","friendship","fruit","friendly","frederick","freedom","fright","froth","front","fran","frenchman","frowns","frail","fray"]

## pi:

["pity","pistol","pisanio","piece","pinch","picture","pieces","pick","pitch","pitiful","pierce","pit","pin","piteous","pindarus","pitied","pine","pipe","pilgrimage","pillow","pisa","piercing","pigeons","pig","pile"]

## sh:

["shall","she","should","show","shame","shalt","shakespeare","shallow","shepherd","shylock","short","shows","shake","shape","shadow","shouldst","sharp","ship","shut","sheep","shore","shed","shot","shortly","shine"]

## wu:

["wul"]

## ar:

["are","art","arms","arm","armado","army","ariel","arthur","archbishop","argument","arviragus","armour","arise","armed","arrest","arch","articles","arriv","article","arrant","array","arras","arts","archive","arrows"]

## il:

["ill","illinois","il","illyria","ills","ilion","ilium","illustrious","illusion","illegitimate","illusions","illustrate","ils","ilbow","ild","illiterate","illness","illo","illume","illumin","illuminate","illumineth","illustrated","illyrian"]

## ne:

["never","news","new","near","ne","neither","need","next","needs","neck","nestor","nerissa","ned","neighbour","necessity","nephew","newly","needful","neglect","nest","neighbours","nearer","necessary","neptune","neat"]

## se:

["see","second","set","service","servant","seen","sent","send","sea","seek","seem","self","serve","sebastian","sense","seems","servants","seal","senator","several","serv","seven","secret","seeming","seat"]

## pl:

["place","please","play","pleasure","pluck","plain","plague","plantagenet","pleas","plot","plead","places","players","plays","pleasant","pleasures","plebeians","plant","pleasing","playing","plainly","pledge","pleases","plac","plains"]