Problem

Title: Config Search DataBase

Problem Statement: Create a ML/NLP model to parse through any webpage(config guide link) and extract each feature to their configs and store it in DB. DB has to be separately created for each OS type(IOS/IOS-XE, IOS XR, Nexus.. etc).

DataSet Link:

https://www.cisco.com/c/en/us/support/ios-nx-os-software/index.html - This link has all different OS types like – IOS, IOS XR, NX OS. Go to respective links of each OS type and go under section "Configuration guide" or "config guide". You need not restrict with this link alone, any config guide Cisco link can be taken, just to make sure to see which OS type it is and map it to respective DB, if its new OS type, then create new DB.

Ex for data source:

1. https://www.cisco.com/c/en/us/support/ios-nx-os-software/index.html
2. Click this below and it will redirect to https://www.cisco.com/c/en/us/support/ios-nx-os-software/ios-xe-16/series.html#Configuration

3. Go to "Documentation" tab and go to "Configuration guides" section. Under "Configuration guides" section, click "View all documentation of this type ".
4. Here you have all config guide for IOX XE – OS type for 16.x releases.
5. For each feature there will be separate link and so go to each link – ex: IP Routing: BFD Configuration Guide, Cisco IOS XE Everest 16.5 and go to each link - ex: "BFD Dampening" and go to "How to Configure" section and extract each feature with its config details and put it in Database – ex:
   Feature is "BFD Slow Timer" and config will be

   "enable

   configure terminal

   bfd slow-timer *milliseconds*

end “

Similarly each feature has to be mapped to their own configs like above line by line in the Database. So key-value mapping should be done for each feature to config and separate DB has to be created for each OS type(above ex: IOS-XE).

Sample Ouput:

Database1 – IOS-XE_DB

Feature	**Configs**
BFD Slow Timer	enable configure terminal bfd slow-timer *milliseconds* end
BFD Dampening	enable configure terminal bfd-template multi-hop *template-name* interval min-tx *milliseconds* min-rx *milliseconds* multiplier *multiplier-value* dampening [*half-life-period reuse-threshold suppress-threshold max-suppress-time*] end show bfd neighbors details show bfd neighbors dampening show bfd neighbors dampened