

pa - wikidump splitter

June 2, 2019

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In [1]: # Start logging process at root level
import logging
logging.basicConfig(format='%(asctime)s : %(levelname)s : %(message)s', level=logging.INFO)
logging.root.setLevel(level=logging.INFO)
```

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In [2]: total_lines = 1092633438
chunk_pages = 99999 # 999999: ~2.3GB, 99999: ~300MB, 9999: ~89MB, 999: ~8MB
chunks_folder = "datasets/chunks/"
folder_name = chunks_folder+"enwiki-chunks-"+str(chunk_pages)+"/"
chunk_basename = "enwiki-chunk-"+str(chunk_pages)+"-"
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In [3]: import os
# Check and create chunk diretory
if not os.path.exists(chunks_folder):
    print("Chunks folder was not present.")
    os.mkdir(chunks_folder)
if not os.path.exists(folder_name):
    print("Data chunk folder was not present.")
    os.mkdir(folder_name)
```

Data folder was not present.

```
In [4]: # Based on:
# https://stackoverflow.com/questions/6184912/how-to-split-large-wikipedia-dump-xml-bz2

import os
import bz2
from timeit import default_timer as timer

#print("expecting: " + " + " parts")

def split_xml(filename):
    ''' The function gets the filename of wiktionary.xml.bz2 file as input and creates
    smaller chunks of it in a the diretory chunks
    '''
    # Counters
    pagecount = 0
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filecount = 1
total_pages = 0
# open chunkfile in write mode
chunkname = lambda filecount: os.path.join(folder_name, chunk_basename+str(filecount))
chunkfile = bz2.BZ2File(chunkname(filecount), 'w')
# Read line by line
bzfile = bz2.BZ2File(filename)
#print(sum(1 for _ in bzfile))
print("Chunking...")
start = timer()
for line in bzfile:
    chunkfile.write(line)
    # the </page> determines new wiki page
    if b'</page>' in line:
        pagecount += 1
        total_pages += 1
    if pagecount > chunk_pages:
        chunkfile.write(b'</mediawiki>') # add end tag
        end = timer()
        print(datetime.datetime.now(), ":", filecount, "->", round(end - start, 2), "s")
        chunkfile.close()
        pagecount = 0
        filecount += 1
        chunkfile = bz2.BZ2File(chunkname(filecount), 'w')
        start = timer()
        # add start tag
        chunkfile.write(b'<mediawiki xmlns="http://www.mediawiki.org/xml/export-0.10">')
try:
    chunkfile.close()
except:
    print('Files already close')

print("Done.")

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In [ ]: split_xml('datasets/enwiki-latest-pages-articles.xml.bz2')
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In [ ]:
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