In [ ]:

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#!/usr/bin/env python
# coding: utf-8

# import of relevant libraries
import scrapy
from scrapy.crawler import CrawlerProcess
from scrapy import Selector
from scrapy.linkextractors import LinkExtractor
from bmw_scraper.items import BMWItem
import numpy as np
from scrapy.loader import ItemLoader
import csv
from datetime import datetime

#creating spider for BMW

class FinanceNewsScraperSpider(scrapy.Spider):
    name = "bmwnewsarticles"

    def start_requests(self):
        start_urls = ['https://www.reuters.com/companies/BMWG.DE/news',
                      ]

        urls = start_urls

        for url in urls:
            yield scrapy.Request(url=url, callback=self.parse_newspage)

    def parse_newspage(self, response):
        links = response.xpath('//a[contains(@href,"/article/")]/@href').extract() #extract hyperlink
        for url in links:
            yield response.follow(url = url,callback = self.parse_article)

    def parse_article(self, response):

        item = BMWItem()
        item['article_link'] = response.url
        item['article_headline'] = response.xpath('//*[contains(@class,"ArticleHeader_headline")]/text()').extract()
        item['article_date'] = response.xpath('//*[contains(@class,"ArticleHeader_date")]/text()').extract()
        item['article_text'] = response.xpath('//div[@class="StandardArticleBody_body"]//p/text()').extract()

        print(item)

        #saving data to file.
        path = 'news/'
        file = 'bmwnews_' + str(datetime.now().strftime("%Y%m%d-%H%M")) + '.csv'
        file_name = open(path + file, 'a')

        fieldnames = ['article_link', 'article_headline','article_date','article_text'] #adding header to file

        writer = csv.writer(file_name, lineterminator='\n')
        writer.writerow([item[key] for key in item.keys()])
```