

In [1]:	<pre>pip install requests beautifulsoup4</pre> <p>Defaulting to user installation because normal site-packages is not writeable Requirement already satisfied: requests in c:\programdata\anaconda3\lib\site-packages (2.28.1) Requirement already satisfied: beautifulsoup4 in c:\programdata\anaconda3\lib\site-packages (4.11.1) Requirement already satisfied: certifi>=2017.4.17 in c:\programdata\anaconda3\lib\site-packages (from requests) (2022.9.14) Requirement already satisfied: idna<4,>=2.5 in c:\programdata\anaconda3\lib\site-packages (from requests) (3.3) Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\programdata\anaconda3\lib\site-packages (from requests) (1.26.11) Requirement already satisfied: charset-normalizer<3,>=2 in c:\programdata\anaconda3\lib\site-packages (from requests) (2.0.4) Requirement already satisfied: soupsieve>1.2 in c:\programdata\anaconda3\lib\site-packages (from beautifulsoup4) (2.3.1) Note: you may need to restart the kernel to use updated packages.</p>
In []:	<pre>CHECKING OF WEBSITE TEXT EXTRACTION</pre>
In [2]:	<pre>import requests from bs4 import BeautifulSoup url = 'https://insights.blackcoffer.com/rising-it-cities-and-its-impact-on-the-economy-environment-infrastructure-and-city-life-by-the-year-2040-2/' # GET request to the URL response = requests.get(url) # Checks if the request was successful (status code 200) if response.status_code == 200: # Parse the HTML content of the page soup = BeautifulSoup(response.content, 'html.parser') # Extracts all text from the webpage text = soup.get_text() # Cleans up the text by removing extra whitespace clean_text = ' '.join(text.split()) # Prints the extracted text print(clean_text) else: print(f"Failed to retrieve the webpage. Status code: {response.status_code}")</pre> <p>Rising IT cities and its impact on the economy, environment, infrastructure, and city life by the year 2040. - Blackcoffer Insights Sign in Our Success Stories Banking, Financials, Securities, and Insurance Energy Entertainment Fast Moving Consumer Goods Government & Think Tanks Healthcare Infrastructure & Real Estate IT Lifestyle, eCommerce & Online Market Place Production & Manufacturing Research & Academia Retail & Supply Chain Telecom What We Do Banking, Financials, Securities, and Insurance Energy Entertainment Fast Moving Consumer Goods Government & Think Tanks Healthcare Hospitality Infrastructure & Real Estate IT Services Lifestyle, eCommerce & Online Market Place News & Media Production & Manufacturing Research & Academia Retail & Supply Chain What We Think Automobiles & Components BFSI Asset and Portfolio Banks Capital Markets Derivatives and Securities Diversified Financials Finance & Accounting Insurance Securities and Capital Markets Capital Goods Commercial & Professional Services Consumer Discretionary Consumer Durables & Apparel Consumer Services Consumer Staples Food & Staples Retailing Food, Beverage & Tobacco Household & Personal Products Data Science Analytics Artificial Intelligence Big Data Business Analytics Data Visualization Internet of Things Machine Learning Statistics Energy DataOil How To Analytics Application Development Artificial Intelligence Business Analytics Example Optimization Projects Software Development Source Code Audit Statistics Web & Mobile App Development Schedule Demo Contact Sign in Welcome!Log into your account your username your password Forgot your password? Password Recovery Recover your password your email Search Sign in Welcome!Log into your account your username your password Forgot your password? Get help Password recovery Recover your password your email A password will be e-mailed to you. 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August 24, 2023 What We Think Rising IT Cities and Their Impact on the Economy, Environment, Infrastructure, and City Life in Future August 18, 2023 What We Think Internet Demand's Evolution, Communication Impact, and 2035's Alternative Pathways August 18, 2023 What We Think Rise of Cybercrime and its Effect in upcoming Future August 18, 2023 How To AllAnalyticsApplication DevelopmentArtificial IntelligenceBusiness Analytics ExampleOptimizationProjectsSoftware DevelopmentSource Code AuditStatisticsWeb & Mobile App Development What We Do AI/ML and Predictive Modeling February 3, 2022 Blackcoffer Solution for Contact Centre Problems April 26, 2021 How To How to Setup Custom Domain for Google App Engine Application? February 13, 2021 How To Code Review Checklist April 10, 2020 Schedule Demo Contact Search Home What We Think Rising IT cities and its impact on the economy, environment, infrastructure, and... EntertainmentBroadcastingFutureForecastsWhat We ThinkFutureRising IT cities and its impact on the economy, environment, infrastructure, and city life by the year 2040. By Ajay Bidyarthi - August 24, 2023 18104 We have seen a huge development and dependence of people on technology in recent years. We have also seen the development of AI and ChatGPT in recent years. So it is a normal thing that we will become fully dependent on technology by 2040. Information technology will be a major power for all the developing nations. As a member of a developing nation, India is rapidly growing its IT base. It has also grown some IT cities which will be the major control centres for Information technology by 2040. Rising IT cities Noida:- Noida in Uttar Pradesh near New Delhi is an emerging IT sector now. Many large companies like Google, Microsoft, IBM, Infosys and others have set up their companies here. Noida has a market base of billions of dollars and is doing a great job of boosting the national economy. The establishment of so many software companies has made Noida an information technology hub. Gurgaon:- Gurgaon in Haryana is also an emerging IT hub. Many large companies like Google, Microsoft, IBM, Infosys and others have set up their companies here. Gurgaon has a market base of billions of dollars and is doing a great job of boosting the national economy. Bengaluru:- Bengaluru is called as the IT hub of India. It is also a smart city. Many large companies like Google, Microsoft, IBM, Infosys and others have set up their companies here. Bengaluru has a market base of billions of dollars and is doing a great job of boosting the national economy. Kolkata:- Kolkata in West Bengal is an emerging major IT hub. The new Kolkata i.e. Saltlake Sector 5, New town, Rajarhat area of Kolkata is a major IT hub. The government is giving the software companies land at almost free of cost to set up the companies there. Many large companies like Google, Microsoft, IBM, Infosys and others have set up their companies here. Kolkata has a market base of billions of dollars and is doing a great job of boosting the national economy. Impact on Economy There is a huge impact of the rising IT cities on our economy. Some of the effects are- Demand:- The rising IT cities will greatly help to boost our economy. These will create a huge demand for raw materials. The products when ready will be a huge demand for the people too. Supply:- Supply means the fulfilment of demand. In a large and highly populous country like India, there is always a demand for finished products. If more IT cities do not develop, the companies cannot fulfil the needs and desires of the people of a populous country like India. As IT cities develop, more IT companies will come, which will supply more and more finished IT products to our people. Market:- A market is a place where different economic agents like buyers and sellers interact with one another. In a populous country like India, there is a huge market. As IT cities will grow, more and more IT companies will come from across the world and more will the competition in the market increase. This will help consumers as they will get more and more differentiated products and the market will also run smoothly. A competitive market is always good and healthy. It can safely assume that our oligopoly market will surely tend to reach a perfectly competitive market by the year 2040. Revenue:- As the market increases, more revenue will be generated. Now at present, the IT revenue of India is 245 million dollars, 19 million dollars more than the financial year 2022. If IT cities grow, then more companies will invest which leads to an increase in the IT market which in turn generates more revenue in India. We can expect that the IT revenue of India will cross or nearly tend to reach 10 billion dollars by 2040. Impact on Environment The rising IT cities will create a huge impact on the environment, the maximum of which will be harmful effects. The impact of rising IT cities on the environment is- Deforestation:- There will be cutting of trees in huge numbers to make the building of the IT companies which will cause great harm to the environment. The cutting of trees on a large scale will also cause mass degradation of forests. More carbon footprint:- The IT companies will generate more carbon footprint in the atmosphere. South Asian countries including India are known for their lower carbon footprint. But if the IT sector grows this way then we will also be at the same pace of generation of carbon footprint by 2040. Death of birds:- The cell phone and mobile towers by the telecom companies caused the death of birds which caused a great imbalance in the ecosystem. The number of sparrows has been reduced due to this phenomenon. If this goes on we can see the extinction of many bird species by 2040. Impact on infrastructure There are many contributions of the IT cities on infrastructure. They are- Transportation:- The rising IT cities need an excellent transport system for the supply of raw materials and delivery of the finished products into the market. So the transportation system develops in that area. So we have an excellent transport system by 2040. Need for a public transport system:- There is a need for a public transport system in the IT cities. As the IT cities are a source of employment and a huge population reside in these areas, there is an adequate need for public transport systems like buses, taxis etc. We hope that it will be improved by 2040. Water supply:- As a huge number of people reside in the IT cities there is a need for adequate water supply to fulfil the needs of people as well as for industries. This will help us to find many new methods of water supply and conservation by 2040. Electricity:- Electric supply is the lifeline of the sector. Without an electric supply, no machines will run and not even the IT cities will flourish. If the IT cities flourish this way, we going to have an excellent electric supply by 2040. Healthcare:- As a large number of people reside in IT cities, there is a need for proper health infrastructure and healthcare facilities for the people. So with the growth of IT cities, our healthcare system will also improve by 2040. Education:- Education is the primary key or core of any nation. There must be proper education and training centres in those IT cities to fulfil the people's demands. So with the growth of IT cities, the education system will also develop by 2040. Our education is also going to be skill-oriented. Impact on city life With the growth of IT cities, more people will get jobs and will earn more. So the purchasing power of the people will increase. People will lead a better lifestyle. They will buy things of good brand value. The tastes and preferences of people will also change. The human development index is going to increase. People will buy good quality food and good quality cars. So the food, automobile and many other industries are going to increase. So there will be a huge impact on city life by 2040. Blackcoffer Insights 47: Arka Mukhopadhyay, West Bengal University Of Animal And Fishery Sciences Previous articleRising IT Cities and Their Impact on the Economy, Environment, Infrastructure, and City Life in FutureNext articleRise of cybercrime and its effect by the year 2040. 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Contact us: hello@blackcoffer.com FOLLOW US FacebookLinkedInTwitterYouTube © All Right Reserved, Blackcoffer(OPC) Pvt. Ltd Our Success Stories What We Do What We Think How To Schedule Demo Contact</p>
In []:	<pre>#NOW, LETS FIND SENTIMENT ANALYSIS THAT IS NUMBER OF POSITIVE AND NEGATIVE WORDS IN A WEBSITE USING requests and BeautifulSoup</pre>
In [10]:	<pre>import requests from bs4 import BeautifulSoup import re # Function to fetch HTML content from a URL def get_website_content(url): response = requests.get(url) return response.text if response.status_code == 200 else None # Function to count positive and negative words def count_positive_negative_words(text): positive_words = ["good", "awesome", "excellent"] # Add your positive words negative_words = ["bad", "terrible", "horrible"] # Add your negative words # Convert text to lowercase for case-insensitive matching text_lower = text.lower() # Count positive words positive_count = sum(1 for word in positive_words if word in text_lower) # Count negative words negative_count = sum(1 for word in negative_words if word in text_lower) return positive_count, negative_count # Website to analyze website_url = 'https://insights.blackcoffer.com/rising-it-cities-and-its-impact-on-the-economy-environment-infrastructure-and-city-life-by-the-year-2040-2/' # Fetching HTML content html_content = get_website_content(website_url) if html_content: # Parse HTML using BeautifulSoup soup = BeautifulSoup(html_content, 'html.parser') # Extracting visible text (excluding script and style tags) text = soup.get_text(separator=' ') # Removing non-alphabetic characters and split into words text = re.sub(r'\W+', ' ', text) # Counting positive and negative words positive_count, negative_count = count_positive_negative_words(text) # Print results print(f"Number of positive words: {positive_count}") print(f"Number of negative words: {negative_count}") else: print(f"Failed to fetch content from {website_url}") Number of positive words: 2 Number of negative words: 0</pre>
In []:	<pre>#NOW LETS FIND OTHER THINGS LIKE, COMPLEX WORDS SCORE, TOTAL WORDS AFTER CLEANING, AVERAGE OF THE WORD LENGTH, SYLLABLES ETC..</pre>
In [12]:	<pre># Import necessary libraries import requests from bs4 import BeautifulSoup import re import nltk from nltk.tokenize import sent_tokenize, word_tokenize from nltk.corpus import cmudict import concurrent.futures # Download necessary NLTK data nltk.download('punkt') nltk.download('cmudict') # Function to fetch and clean text from a website def fetch_and_clean_text(url): try: # Fetch the website content response = requests.get(url, timeout=10) # Set a timeout to avoid long waits response.raise_for_status() soup = BeautifulSoup(response.content, 'html.parser') # Extract text from paragraph tags text = ' '.join(p.get_text() for p in soup.find_all('p')) # Clean the text text = re.sub(r'\'s+', ' ', text) # Remove extra spaces return text except requests.exceptions.RequestException as e: print(f"Error fetching {url}: {e}") return "" # Function to calculate number of words, sentences, complex words, syllables, and personal pronouns def text_analysis(text): words = word_tokenize(text) sentences = sent_tokenize(text) # Load CMU Pronouncing Dictionary d = cmudict.dict() # Function to count syllables in a word def syllable_count(word): if word.lower() in d: return len([y for y in x if y[-1].isdigit()]) for x in d[word.lower()][0] else: return 0 complex_words = [word for word in words if syllable_count(word) > 2] total_syllables = sum(syllable_count(word) for word in words) # Count personal pronouns personal_pronouns = ['I', 'me', 'we', 'us', 'my', 'mine', 'our', 'ours'] personal_pronouns_count = sum(1 for word in words if word.lower() in personal_pronouns) # Calculate average word length total_chars = sum(len(word) for word in words) average_word_length = total_chars / len(words) if words else 0 return (len(words), len(sentences), len(complex_words), total_syllables, personal_pronouns_count, average_word_length) # Function to process a single URL def process_url(url): text = fetch_and_clean_text(url) if text: return (url, text_analysis(text)) else: return (url, None) # Main function to perform analysis on multiple websites def main(urls): results = [] # Use a ThreadPoolExecutor to process URLs concurrently with concurrent.futures.ThreadPoolExecutor(max_workers=10) as executor: future_to_url = {executor.submit(process_url, url): url for url in urls} for future in concurrent.futures.as_completed(future_to_url): url = future_to_url[future] try: result = future.result() if result[1] is not None: results.append(result) except Exception as e: print(f"Error processing {url}: {e}") # Print results for url, analysis in results: print(f"\nAnalyzing {url}") (total_words, total_sentences, total_complex_words, total_syllables, personal_pronouns_count, average_word_length) = analysis print(f'Total number of words: {total_words}') print(f'Total number of sentences: {total_sentences}') print(f'Number of complex words: {total_complex_words}') print(f'Total number of syllables: {total_syllables}') print(f'Number of personal pronouns: {personal_pronouns_count}') print(f'Average word length: {average_word_length:.2f}') # Example usage url = ['https://insights.blackcoffer.com/rising-it-cities-and-its-impact-on-the-economy-environment-infrastructure-and-city-life-by-the-year-2040-2/' 'Add up to 80 URLs here '] # Replace with your actual URLs main(urls)</pre> <pre>[nltk_data] Downloading package punkt to [nltk_data] C:\Users\vsouja\AppData\Roaming\nltk_data... [nltk_data] Package punkt is already up-to-date! [nltk_data] Downloading package cmudict to [nltk_data] C:\Users\vsouja\AppData\Roaming\nltk_data... [nltk_data] Package cmudict is already up-to-date! Analyzing https://insights.blackcoffer.com/rising-it-cities-and-its-impact-on-the-economy-environment-infrastructure-and-city-life-by-the-year-2040-2/ Total number of words: 666 Total number of sentences: 29 Number of complex words: 103 Total number of syllables: 890 Number of personal pronouns: 6 Average word length: 4.73</pre>
In []:	<pre># THEN WE WILL MAKE ALL OTHER NECESSARY CALCULATIONS USING THESE VALUES.. FOR OUR DESIRED OUTPUT.</pre>
In []:	