

In [7]:

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import re #importing regular expression
reader = open("aston.txt", "r") #opening the file aston.txt
contents = reader.read() #reading the contents of the file

print(contents) #solution 1 printing the contents of the file
list_without_spaces = re.split(' |\\n', contents) #splitting the data of contents on the ba

list_excluding_apostrophes = [] #initialized an empty list which would store the words wi

for i in list_without_spaces: #iterating over each element of the list
    if i.endswith("'s"): #check if the word in the list ends with 's(apostrophe s)?
        i = re.sub("\\'s$", '', i) #replace the string with an empty space where there is oc
        list_excluding_apostrophes += [i] #adding string to the list. So, this codes results in

list_without_special_charaters = [] #initialized a list which would contain the words exclud

for x in list_excluding_apostrophes: #iterating over element in the list
    if x.isalnum() == False: #check to see if the word is not alphanumeric which means atleas
        alpha_string = "" #initialized an empty alpha string which would extract all the a
        for chars in x: #iterating over each character of the element of the list
            if chars.isalnum() == False: #check to see if the particular charcter is non-alph
                chars = chars.replace(chars, "") #replace that character with empty characte
            alpha_string += chars #adding the character to the string
        list_without_special_charaters += [alpha_string] #adding the string to the list -

    else:
        list_without_special_charaters += [x] #the string is already alphanumeric. So no

list_without_special_charaters[:] = [item for item in list_without_special_charaters if ite

unique_words_list = [] #initialized a list which would store the unique words
for s in list_without_special_charaters: #iterating through each element of the list
    if s not in unique_words_list: #if that element is not the new list- unique_words_list
        unique_words_list += [s] #adding the string to the list - concatenating it

print(unique_words_list) #solution 2

_nsre = re.compile('([0-9]+)') #regex code

#defining function which would sort the elements of the unique_words_list
def natural_sort_key(s):
    return [int(text) if text.isdigit() else text.lower()
            for text in re.split(_nsre, s)]

unique_words_list.sort(key=natural_sort_key) #calling the function natural_sort_key

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with open("aston_result.txt","w") as writer: #creating the file and writing the sorted word
    writer.write(str(unique_words_list))    #solution 3

#defining function which is used to find the longest word in the file
def longest_word(filename):
    with open(filename, 'r') as infile: #opening file
        words = infile.read().split(",") #reading file and splitting on basis of ,
        longest_word = '' #initializing longest_word to empty string
        for word in words: #iterating over the elements of the list
            if len(word) > len(longest_word): #logic to check if the length of the current
                longest_word = word #assigning longest_word to that element
        return(longest_word.strip(" ")) #string the string which would either have an empty

print(longest_word('aston_result.txt')) #Solution 4. Calling the longest_word function and

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Aston University

Aston University is a public research university situated in the city centre of Birmingham, England. Aston began as the Birmingham Municipal Technical School in 1895, evolving into the UK's first College of Advanced Technology in 1956.[5] Aston University received its royal charter from Queen Elizabeth II on 22 April 1966.

In 2017, Aston received recognition Times Higher Education for the second best teaching quality in the UK.[6] For 2018, it was ranked in the top 55 universities in the UK by all major domestic and international league tables. Aston was ranked by QS as the 42nd best university in the world under 50 years old in 2015.

Aston pioneered the integrated placement year concept over 50 years ago,[7] [8][9] with more than 70% of Aston students taking a placement year, the highest percentage in the UK.[10]

History

Predecessor institutions

The origins of Aston University are a School of Metallurgy formed in the Birmingham and Midland Institute in 1875. The Birmingham Municipal Technical School separated from the Institute in 1895, teaching chemistry, physics, metallurgy and electrical engineering. In 1911, commercial classes were introduced and grew into an independent School of Commerce by 1916.[11] The school changed its name in 1927 to the Birmingham Central Technical College,[11] to reflect its changing approach to teaching technology.

In 1951, the Technical College was renamed the College of Technology, Birmingham[11] and work began on the Main Building at Gosta Green. In 1956, it became the first elite designated College of Advanced Technology and underwent a major expansion.[11] It moved into buildings that were constructed between 1949 and 1955 to a design by Ashley & Newman. Princess Margaret laid one of the first foundation stones at the base of the new building in 1951. The building

lding is one of Europe's largest, freestanding brick buildings.[14][unreliable source?] In 1955, the College of Advanced Technology was opened by Her Majesty The Queen.[15] The college expanded again to a design by the City Architect of Birmingham Alwyn Sheppard Fidler between 1957 and 1965.[16]

University status

It officially became the University of Aston in Birmingham on receipt of its Royal Charter on 22 April 1966 and the first Chancellor of the University, Lord Nelson of Stafford, was installed on 10 May. The Charter of the University outlines objectives appropriate to a technological university: "to advance, disseminate and apply learning and knowledge by teaching and research, for the benefit of industry and commerce and of the community generally: and to enable students to obtain the advantage of a university education, and such teaching and research may include periods outside the University in industry or commerce or wherever the University considers proper for the best advancement of its objects." The emphasis given to the sandwich course system, and the maintenance of strong links with industry, arises naturally from the institution's history. The motto of the University is the same as that of the City of Birmingham – "Forward".[17]

In 1983, Aston University, in partnership with Birmingham City Council and Lloyds Bank, established Birmingham Technology Ltd., which manages the Aston Science Park adjacent to the university site. The establishment of the Aston Science Park and Aston University's contribution to the city of Birmingham was fully recognised when the area was granted its own postal address "The Aston Triangle" in 1984, emphasising the campus as an official district of Birmingham. The logo of the establishment takes from the shape of the area.[18]

2000 to present

Aston University hosted the British Science Festival in September 2010, said to be Europe's largest public science event.[citation needed]

Since May 2011, Sir John Sunderland has been the Chancellor of Aston University.

The university is a lead sponsor of Aston University Engineering Academy, a university technical college (UTC) which opened in September 2012. The UTC is for students aged 14 to 19 wishing to pursue further study and careers in engineering, and is located at the edge of the Aston University campus.[19]

In October 2014, Aston announced plans to launch Aston Medical School in October 2015.[20] The University also announced a £35 million cash injection for a major upgrade of the campus, including a new £19 million revamp of Aston Business School and improvement work to the Aston Institute of Photonic Technologies and the School of Languages and Social Sciences.[21]

In February 2017, Aston University launched its online programme website. Four of their MSc programmes are offered 100% online to students in the UK and worldwide, including the Aston Business School's MBA.[citation needed]

In July 2017, Aston became the first University in the UK to have degree apprenticeship graduates.[22][23] Aston began working in close partnership with Capgemini, to create the first degree apprenticeship: Digital and Technology Solutions in 2012.[24]

['Aston', 'University', 'is', 'a', 'public', 'research', 'university', 'situated', 'in', 'the', 'city', 'centre', 'of', 'Birmingham', 'England', 'began', 'as', 'Municipal', 'Technical', 'School', '1895', 'evolving', 'into', 'U

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