Design and Implementation of Python Program to Show a New Mathematical Miracles of Holy Quran by Using Arithmetic Analysis Method

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Abstract: The Holy Quran is unique like no other differs known documents. It's the sacred and most important book of Muslims. It contains knowledge related toall aspects of life. It has been considered by researchers who have attemptedto study it from different angles; the Holy Quran includes many intellectual layers and has the potential to be considered anytime and anywhere. Therefore, this study aims to design a system which could analyze the verses and surahsin the Holy Quran and highlight Miracles by calculating the numerical weight of the Quranic verses and analysis it to the initial factorization prim factors and compared the sense of the verse or scientific phenomenon associated with the verse or sequence of verse to extract and conclude the Miracles. This system is fully implemented using python programming language.

Key words: Holy Quran, miracle, numeric weight, python program, initial factorization

INTRODUCTION

For centuries since its revelation, the Quran has remained unchanged. Its sacred nature and authenticity are unchallenged. Generally, the Quran is read using the Mushaf, a printed version in book form (Khan and Alginahi, 2013).

To Muslims worldwide, the Holy Quran is central point of reference to guide them in their daily existence. In Muslim majority countries such as Iraq, Iran, Saudi Arabia in the Middle East and Malaysia and Indonesia in Southeast Asia, the Quran has been widely printed and is easily available (Norman and Yasin, 2013).

A miracle is described as a happening that is divinely based, an act that is beyond laws and behavior a privilege that Allah bestows upon his messengers and believers to help them in disseminating Hisholy messages with greater credibility through the Holy Quran.

A miracleisan event that seemingly cannot be explained by the natural laws we know that is accepted as supernatural, an act of God. Forexample, a person, thing or happening that is admirable and awes the observer, an act beyond the power of humans, something humanly impossible. Conceptually therefore, it can be logically concluded that with regard to a miracle, the impossibility, the greater the miracle.

For instance, a person collapses before our eyes and some qualified medical person certifies that the person has died. Then a mystic or holy person calls for the corpse to 'arise!' and to the shock of every person in view the corpse gets up and walks away we have a miracle. However, should it be the case of a corpse that has been lying in the mortuary for three days, resurrecting, then we have a greater miracle (Muhammad and Al-Sha'rawi, n.d.).

The Qur'an sent to the Prophet Muhammad is considered a miracle but it is unique and different from those of other Messengers and Prophets in several ways. The Quran offers many miraculous secrets which need much contemplation to unravel and comprehend. When such revelation comes to light, it is obvious that hidden within the Qur'an are multi layers of meaning which shed meanings beyond those gleaned from the superficial and literal significance of its verses.

This miraculous feature may be in the form of a single letter which by itself could hold several meanings. It is crucial to note that each successive generation will find newand relevant meanings, in line with its development of knowledge and the growth of its intellectual aptitude. The implication therefore is that the Qur'an remains relevant and applicable to various generations regardless of the constant changes from generation to generation. In tandem withthe ever-changingperceptions of humans, miraculously the Holy Book appears to expand in meaning even asman explores the universe and widens his searchfor knowledge about his life and existence. Therefore, the Qur'an was never meant to be only for any one people, nation or merely for an era. It was Allah's gift to benefit and guide all a complete and comprehensive religion, offering knowledge for all people and for all time. Should there be limitations and selectivity, the Qur'an

would have diminished a long ago. However, the Holy Book is constantlyregenerating new meaning; always there as a continual source of guidance. This miracle of continuity and unending relevance can be seen from some revelations with subsequent meanings to those of ourpredecessors Muhammad and Al-Sha'rawi, n.d.)

In recent years, the scientific miracles so long hidden within the Holy Quran have become intriguing issues that have garnered the interest of scholars and researchers various fields, particularly the naturalsciences.

The technique of meticulously unraveling obscure text to reveal multi-layered meanings is known as hermeneutics and used most widely for interpreting obscure or literary text.

It is universally known that the Holy Quran is the message from God to His messenger prophet Mohammed and the message is in Arabic language. In this language each single alphabet has a specific number that represents it; therefore, a program in Python language that can convert any Arabic sentence to its corresponding number is designed. Also this program has the ability to convert the complete Holy Quran to its corresponding number. In addition it is able to check if this number is Prime or not hence, this program is extremely useful for Islamic Researchers to find the connection between the Qur'an and things in the real word by taking some verses (Ayat and Sentences) as well as chapters (Surahs) as samples for this study. The findings of this study include several miracles in the Book of Medicals and other fields. The program and results will be discussed in the sections that follow. Theorganization of this study is as follows.

Literature review: Previous studies that focused on the Holy Qur'an in different aspects include the following: AL-Kabi *et al.* (2005) aimed to design and implement a classifier system for different verses of Holy Quran. In the 1st stage they are normalized and then divided into categories for which they have highest score. The systemwas tested on the Fatiha and YaseenSurahs. The resultwas 91% in classifying different verses. The limitation of this work is the categorization process which relies on only the Fatiha and Yaseen Surahs. Almenoar (2010) exhibits a technique that uses a selection of verses from the Qur'an in English to complement the pedagogic process at the undergraduate level.

Chelli proposed aretrivial system for advanced research on information in the Holy Qur'an. It includes the morphology of the Arabiclanguage and the properties of the Quranic text. This study usesthree steps: the first isrelated tothe search enginesand how they work; the second is the Arabic language and its properties and thethird is the Holy Qur'an and its properties including its indexes and many search tools.

Safi (2013) investigated aspects ofstatistical science in the Holy Qur'an. Several concepts and statistical definitions are evident and explicit in numerous Ayat in various chapters of the Holy Quran. Some of these indications including measures ofsampling, spread, estimation, normal distribution, probabilities and central tendency are addressed in several Ayats. The revelationsof this paperfocus on the significance of statistical science and the part played by statisticians in theprogress and development of Islamic law and civilization.

Nakhavali and Seyedi (2013) examined some linguistic, stylistic, musical and audio aspects of the holy Quran and conducted an analysis to prove the existence of miracles, focusing on the subtleties of the Qur'an and its beauty.

Badejani *et al.* (2013) made a selection of conversations (direct and indirect) from "Al-An'am Surah, the 6thchapter of Holy Quran and analyzed the nuances in the conversations by applying the practical theory ofCooperative Principle of CP. The findings of this study show that in the majority of cases, the non-observance of Grice's maxims is found in the maxim of Quantity and the least in Manner. Grice's CP and maxims it contributes have not been found in the"An'am Surah".

Aljawharj (2014) attempted to obtain numbers from the Qur'an using a computer. In addition, the scientific connection between numbers and the Holy Qur'an was investigated, hence, the academic scientific study is aimed at enhancing the importance of computer science in Quranic studies.

Rafe and Nozari (2014) proposed an index-based multiple-pattern matching algorithm for the Qur'an which detects Quranic verses in a text and identifies them. The proposed Quranic algorithm is used for text analysis and information retrieval criteria such as recall and precision and F criteria have been used to evaluate it. The results suggest that they have a profoundimpact on the efficiency of the algorithm.

Sayoud (2015) carried out a mixed linguistic-statistical-numerical analysis o fthe text of the holy Qur'an in order to look for any possible presence of hidden numerical structures. The focus was on the number sevenas it seems to have a longhistorical and religious presence in the holy book.

MATERIALS AND METHODS

Arithmetic analysis method: There is a function known as the corresponding function that mapping between alphabetic characters and numbers as shown in Fig. 1 where each character has one corresponding number that represent it, then the weight number of any word is calculated by adding these numbers that belong to the

Sequential value	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Arabic letter	ا	ب	ج	د	ه	و	ز	ح	ط	ي	ك	ل	م	ن
numerical weight	1	2	3	4	5	6	7	8	9	10	20	30	40	50

Sequential value	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Arabic letter	س	ع	ف	ص	ق	ر	ش	ت	ث	خ	ذ	ض	ظ	غ
numerical weight	60	70	80	90	100	200	300	400	500	600	700	800	900	1000

Fig. 1: Numeric weight of the arabic alphabet

same word to each other. After that the weight number of quranic verses is calculated by adding the weight number of each words that belong to the same verses to each other, then these resulted weight numbers is analyzed to found them factors and check them to found the prime factor, after that we study the relationship between some of the prime factors and comparing them with the verses content or with a scientific phenomenon associated with the content of the verse or compare them with the sequence of verse.

Fourteen centuries back at the revelation of the Quran, the numbers known today were non-existent. Instead there was a system used universally with letters of the Arabic, Hebrew, Aramaic while Greek alphabets provided the numerals. The numbers assigned to each letter of the Arabic alphabet are presented in Fig. 1 below (Haq, n.d.).

The prime number is a natural number, it is >1 and which is divisible only byone and itself. A composite number on the other hand, it is a natural number greater than one but it is not prime number. The number 51 for instance is primeas it has only two factors, 1 and 51 whereas 15 is composite numberas it has the factors 1, 3, 5 and 15. Any composite number >1 can be represented as a unique product of primes (Stein, 2009).

The importancefor a number to be prime is that the probability for any natural value to be prime is very little. For example, letnumeric weight for Ayat to be 53 (which is prime) is very little since between 50 and 60 there are only 53 and 59 as prime numbers. On the other hand, for a composite number x the probability for y to be one of x's factor is very little as there are so many prime numbers between 1 and x. For example, if x = 2356, the probability for y, 1/y<2356 to be one of the factors of x is being one of 330 prime numbers which exist between 1 and 2356. Then for the Holy Qur'an when what the Ayat is talking about consistsof the number y and its weight number has a factor y, it will be considered amiracle, what more when we found thousands of such cases.

Methodology: The current methodology can be clarified by the following:

- Verses (sentences and Ayat) are used as input in this step in string as well as chapter (Surah) orall Holy Qur'an from text file
- Analyzeinputs to the characters
- If the character is mushaddadathen the character is considered as twice time occurred
- Find the corresponding number to the letter depending on Fig. 1
- Summation of all the numbers and store the result
- Test whether the number is prime or not prime
- Factorizeeach nonprime number to the all factors and store the results
- Findall the prime factors of the results and store the results
- Connect between the results to findthe miracle in different aspects which arerelated toeach Ayat, chapter in the Holy Qur'an (Fig. 2)

Implementation: This study presents the implementation and results according tothe methodology described. After a verse (Ayat, Sentence) or Surah is keyed into the system fromtextbox or text file, CLICK on the button COMPUTE WEIGHT, the result will be displayed. Figure 3 presents the system interface.

Figure 4 and 5 show the interface besides factors related to verses or chapters from text boxor text file, respectively. After that all results are stored in Microsoft Excel fileas shown in Fig. 6.

This file consists of 116 sheets. One for all the Surahs inthe Holy Qur'an is called "all" the second sheet is called prime which represents all the Surahs which have numerical weight and are prime as shown in Fig. 7 and other 114 sheets where each sheet is specified for one Surah, hence its name is related to the name of the Surah. The sheet "all" contains six columns; the first column is the sequence the second and third carry the name of the Surah in Arabic and English, respectively the fourth is the number of Ayats in the Surah, the fifth is the numerical weight with Basmalah, the sixth illustrates whether the case of the weight is prime or non prime, final column is the prime factors of the weight. In addition it can be shown that links are related
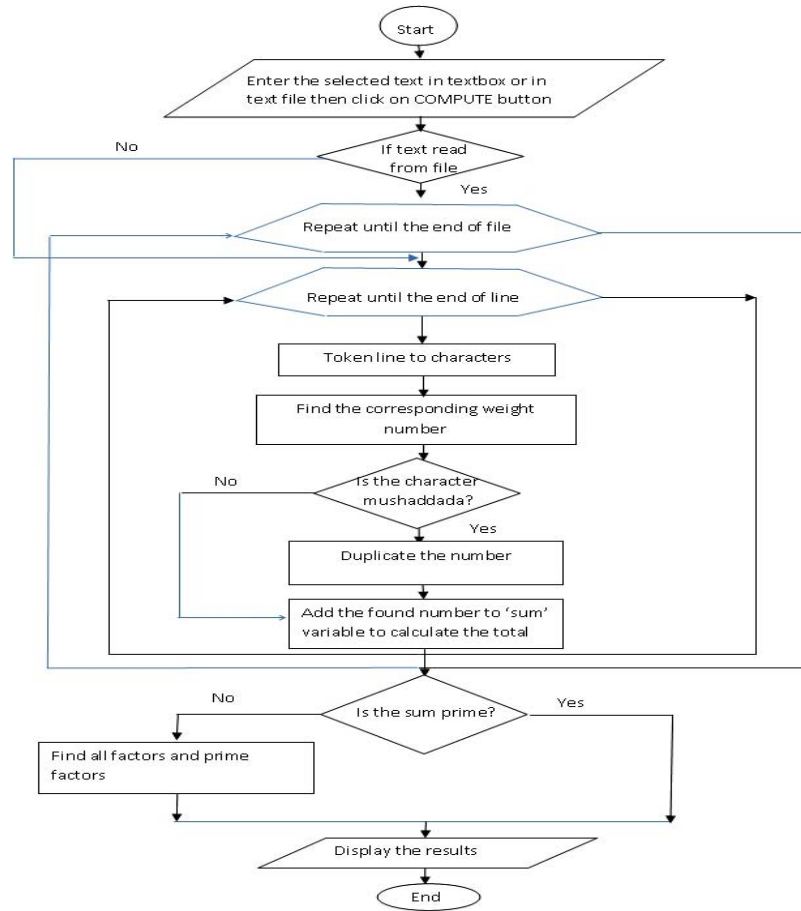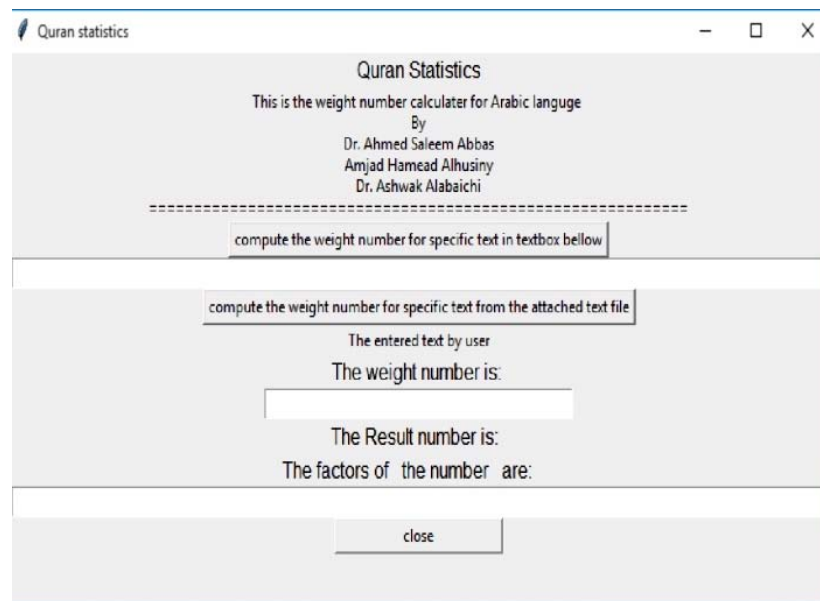
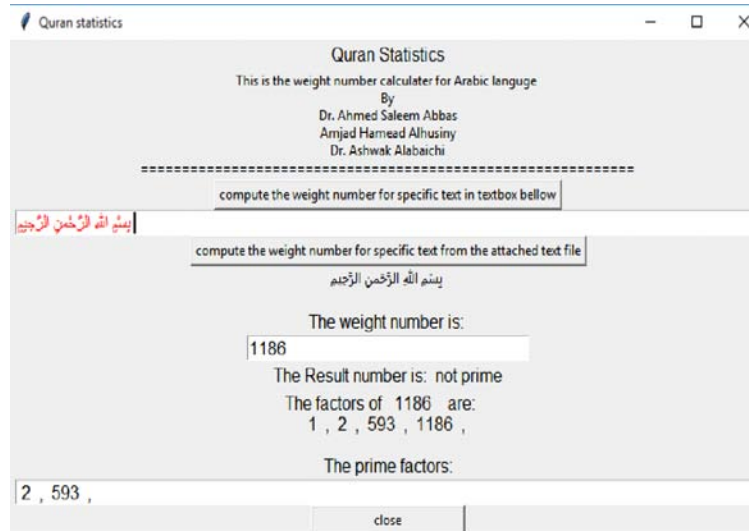Fig. 2: Flowchart of the system

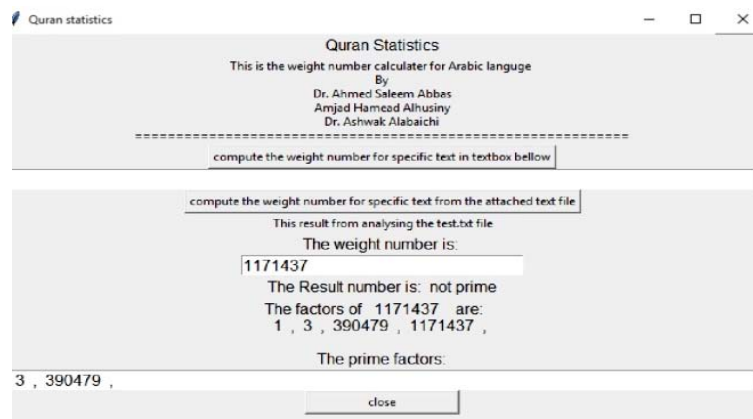Fig. 3: The system interface

Fig. 4: Interface with verse

Fig. 5: Interface with text file

Fig. 6: Sheet "all"

Fig. 7: Sheet "prime"

Fig. 8: Sheet "Fatiha"

to each Surah click on this link and move to another sheet related to the Surah itself as shown in (Fig. 8).

It can beshown from Fig. 8, it contains the same columnsas described above in Fig. 5 except here it is related to each Ayat in the Surah instead of Surah.

RESULTS AND DISCUSSION

The Results (miracles discovered): This study found some new miracles of some Ayats in the Holy Qur'an as follows:

- The numerical weightof Al-Enssan Surah is 85123, which is equal to 23×3701, hence, 23 is prime number and represents the number of chromosomes in humans

- The mud word "Tin" occurs 12 times and numerical weight is 69 which is equal to 3×23

- Waythe word "Tin" occurs 23 times and the numerical weight is 300 while AL-way word "Tin" has prim numerical weight is 331

- The Ayah which has sequence 86 in chapter AL-A'raf in this Ayah Allah said to Prophet Shuaibthey were few then increased and reproduction means genes where the numerical

weight of this Ayah is 9890 and one of the factors is 23 in addition another factor 86 which represents a sequence of the Ayah in SurahAL-A'raf

In AL-BaqarahSurah in Ayahnumber (138), The Sibghah occurs twice in the Holy Qur'an and the numerical weight is $3703 = 23^2 \times 7$. In addition, the number 23 power to 2 is the same in number of occurrences as the Sibghah word. And the human lives on the seven earths as a numerical weight to this Ayat.

In the Ayah which has sequence number 23 in BaqarahSurah. The word "مثلها" that mean "same" was mentioned and the numeric number of this Ayah is prime (4673) andthe numeric weight of the word "مثلها" is 575 which is 5×23.

TheAyah which has number 172 in AL-A'raf Surah, the numeric weight of this Ayat is 19576 which is equal to 2×661 whereas the numeric weight of the word "their seed: ذريتهم" is 1565 and the factors are 313 and 5. The number of followers of Talot "طالوت" and Prophet Mohammed followers' in Bader battle is 313. Also the same number will be followers of Imam Al Mahdi "الامام المهدى عجل الله فرجه". Finally the number of persons of Hadith Al Kasa "اصحاب حديث الكساء" is 5. They are Mohammed Ali cousin of Mohammed, Fatimah daughter of Mohammed, Al-Hassan and Al-Husain sons of Ali.

The sentence "children of Adam: بنى ادم" occurs 7 times anditsnumeric weight is 107and the total is 749. The numeric weight of the devil word "الشيطان" is 701 and occurs 63 times with total weight of 44163. It can be noticed there is oppositebetween "devil: الشيطان" and "children of Adam: بنى ادم".

The devil "الشياطين" word in Ayah which has sequence 121 in AL-An'am Chapter occurs. Its numeric weight is 4907 and one of the factors is 701. Hence, 701 is the weight of the devil as mentioned above. We found in this Ayah there is no permission for Muslims to Eat of that (meat) on which Allah's Name has not been pronounced and certainly, the shayatin (devils), do inspire their friendsto dispute with real Muslims and if they obey them, then they would indeed be Mushrikun (polytheists). The numeric weight of the word "Death الموت" is 477 which is equal to 3×53. Hence, the Deathword occurred 53 times.

The Ayah which has sequence 56 in AL-Baqarah Surah. This Ayah talked about death and life twice and the numeric weight of this Ayat is 3131 which is equal to 31×101. It can be observed 31 is one of its factors and occur twice in the weight of the Ayah. In addition occurring 1 is twice in the weight of the Ayah. The Way "صراط" word occurs 23 times and the total numeric weight of Ayats which contain it is 104268 with factors of 2, 2, 3 and 8689.

The sentence "on the straightway على صراط مستقيم" occurs 5 times with numeric weight 1051 and total weight of its Ayats is 20935.

The AL-way "الصراط" word occurs 6 times with total weight of 1986. It has weight 331 and the weight of the Ayats which contains it is 20475.

Thenumeric weight of Ayat has sequence 23 in Al-Shoura (الشورى) Surah is 9499 which is equal to the 7×23×59. This weight is divisible by 23. In addition 23 represent the sequence of Ayah. The sentence" Noreward do Iseek from you for this but only to be kind to me for my kinship, "لا أسئلكم عليه اجرا الا المودة فى القربى" which is associated with to be kind to me for my kinship" has numeric weight 26×23 which is divisible by 23. We notice that 23 represent thesequence of Ayahin Al-Shoura chapter.

Ayah "Mubahala" مباهلة has sequence 61 in Al-Imran Surah. The numeric weightof this Ayah is 5545 which is equal to 5×1109. The number of persons who went to the "Mubahala" مباهلة are 5 "Mohammed and his daughter Fatimah withImam Ali and his sons al-Hassan and Al-Husain.

The Ayats which arerelated to "Mubahala: مباهلة" are: Ayat which has sequences 59, 60, 61, 62, respectively in Al-Imran chapter, the numeric weight of these Ayatsis prime (13729). This means integrated numeric weight of the subject.

The numeric weights of the two Ayats have sequences 65 and 67 in Al-Imran Surahare prime which is 4493 and 2221, respectively. These Ayah talks about Abraham that he was neither a Jew nor a Christiann but he was a true Muslim and he was not of the slaves to many Gods.

The numeric weight of Ayat which hassequence 157 in AL-Araf Surah is prime (17293) and in addition its sequence(157) is prime. This Ayah talk about Those who follow the messenger (i.e., Muhammad) where he commands them for doing good and forbids them from bad behavior, heallows them as lawful thingslike all good and lawful as beliefs, persons, food and he prohibits them as unlawful things like all evil and unlawful belief, persons and food.

Also this Ayah contains thefollowing two sentences which have numeric weight and are prime 1303 and 347, respectively. "يأمرهم بالمعروف وينهاهم عن المنكر".

"Commands them for all good things and behavior and forbids them from All bad things and behavior they who will be successful".

The sentence "obeyed Allah: اطيعوا الله" occurs 11 times and numeric weight is prim (163). The weight number of whole Quran that computed by our program is (25986361) and it is prime number. And when we said

whole Quran that mean 114 chapters (surah) and 6236 Quranic verses and each verse is contained number of words and each word number of characters.

These twenty two miracles are mentioned in this paper and there are many others we did not mentioned them and we will discuss them in next syudy.

CONCLUSION

Several conclusions are drawn from humble study and the most significant ones are discussed as follows. Researcher conclude that the use of computers and programming techniques and methods of numerical analysis led us to discover many miracles in the Holy Qur'an and confirmed by modern sciences. In spite of that it has recently become famous although, it was already be talked about 1400 years ago.

Through the program which was designed and implemented, the researcher can analyzes the surah and verses as well as convert them into digits which is confirmed in the interpretation of the Holy Quran such as اهل البيت : AhlBayt: the family of profit Mohamed: 479 is the weight number and it is prime number".

RECOMMENDATIONS

Finally, in concluding this study, several recommendations for future study are extended. Further, research needs to be done to support this study. Among the suggestions are the following:

- Completelyanalyze the other Surahs to present the other miracles within
- Develop a system to store the results using databases without using Excel
- Draw graph for each Surah in the Holy Quran based on numeric weight of its words

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