A study of macintosh operating system computer science essay

Technology, Computer

Mac OS, which is the abbreviation for Macintosh Operating System, is one of the operating systems available in the market nowadays. Unlike Windows, Mac OS is a graphical user interface-based (GUI) operating system specially designed only for Macintosh computers. It was the first operating system in the world developed by Apple Incorporation in 1984 (Mac OS, n. d.). Although the existence of Windows had grabbed the computer users' first choice from Mac OS, the latter is publicly known as the biggest rival of the former. This situation can be seen as the population of Mac users gradually increases day by day.

By using Mac OS, users can experience several advantages. First of all, Mac OS appears to be more user-friendly and it is suitable for all new computer learners in different stage due to its high reputation on GUI (Parsons & Oja, 2008). Instead of Windows' complex command-line operating system, Mac users can produce a command with just a point and click GUI (Parsons & Oja,).

Moreover, Mac OS is much more secure compare to other operating systems. This is because most of the viruses and adware are Window-based, and they will not run on Mac (Daniels, n. d.). The main purpose of hackers or cyberpunks creating a virus is to spread them as fast as possible to obtain the users' information; therefore, designing a virus for Mac will not benefit the virus writers since the population of Windows users is higher than Mac (Daniels, n. d.).

Besides PowerPC microprocessor produced by IBM, Macintosh computers can also support Intel microprocessor after the release of Mac OS X. This feature

allows Macintosh to switch between Mac OS and Windows with the help of dual boot utility (Parsons & Oja, 2008). In addition, virtual machine technologies also enable Macintosh computers to run both Mac OS X and Windows at the same time (Parsons & Oja, 2008). Although the performance speed of the computer might be slowed down, this is helpful when Mac users want to run some programs that are only supported by Windows.

However, there are also some disadvantages using Mac OS. The limitation of programs seems to be the biggest problem faced by the Mac users (Parsons & Oja, 2008). Mac users may find it troublesome when most of the programs and software especially games available in Windows are not supported by Mac OS (Daniels, n. d.). Besides, the price of Macintosh computers is also one of the factors that make the computer users not to purchase it.

Furthermore, Mac OS uses resource forks. Resource fork is a companion file used by Mac OS to store information of a data such as file type, icon and so on (Parsons & Oja, 2008). The existence of resource forks has made the file transfer from Mac to other platforms such as Windows more difficult (Parsons & Oja, 2008). In order to solve this problem, the assist of resource editor such as ResEdit is needed to convert it to other platforms' readable version data fork (Resource fork, n. d.).

History and Background

System 1. 0 GUI. jpg MAC_OS_X_GUI. jpg

Desktop of System 1. 0 Desktop of Mac OS X

In 1984, Apple Inc. introduced their first Macintosh computer system which was bundled with a newly released operating system. The operating system was formerly known as System software instead of Macintosh Operating System. Its original design was partly based on Lisa operating system which was designed for Apple's Lisa computer system (" History of Mac OS", n. d.). One of the founders of System was Jeff Raskin (" History of Mac OS", n. d.). By then, Mac computers were powered by Motorola 68000 microprocessor. As time goes by, System has undergone revolution. This revolution has separated the operating system into two families – the Mac OS Classic family and the Mac OS X family.

The first version of Mac OS, which was called System, was in the Classic family. The Mac OS Classic family was actually based on Apple's original code (" Mac OS", n. d.). That time, it was only compatible with Apple's computers powered by Motorola 68000 microprocessor. The Classic family was popular and unique compared to the other operating systems available because it uses graphical user interface (GUI) instead of command line interface which was used in MS-DOS. This provides a user-friendly interface for the users, which made the Apple's computers easier to use.

For the first few version of System which is System 1 to System 4, they only can run an application at a time (Par Web Solutions, 2005). Only until System 5 was released, the system can finally do multitasking, ie. ability to run more than 1 application at the same time. However, this was not officialized and widely used until System 6 was released. In 1991, System 7 was released. There were a few significant events that occurred. Firstly, System 7. 1. 2 was

used to run in the first Apple computer powered by PowerPC processor. The whole operating system had to be rewritten in order to run properly on PowerMac computers. Later, the operating system had finally changed its name from System to Macintosh Operating System (Mac OS). Mac OS 9 is the final version in the Classic Mac OS family.

. MacOsXfamily. png

In 1999, the first version of Mac OS X from the Mac OS X family was released – Mac OS X Server 1. 0. Only in March 2001, the Mac OS X 10. 0: Cheetah for desktop was released. ' X', which is the Roman numeral for number 10, can be read as " ten" or " axe". Mac OS X, unlike the previous versions from the classic family, is based on Unix operating system (" Mac OS history", n. d.). However, this version was criticized for its slow performance. Soon, the later version had solved this problem and further enhanced its performance. The part that distinguished Mac OS X from other operating systems would be the name made for the every version. All the versions in the Mac OS X family were named after the cat family. They are Cheetah(10. 0), Puma(10. 1), Jaguar(10. 2), Panther(10. 3), Tiger(10. 4), Leopard(10. 5) and followed by the latest version Snow Leopard(10. 6). In 2006, Apple's Macintosh computers powered by Intel processor were introduced with the upgraded version of Tiger. Then, Mac computers can run on both processor, ie. PowerPC and Intel. Later, Mac computers brought in the dual boot camp and Virtual PC software which allow Intel-Mac users to run more than 1 operating system on the same computer. Soon, Leopard had become the last version

that can still run on Mac computers with both processors because the latest version, Snow Leopard, is designed only to run on Intel-Mac computers.

Objectives

Upon completing this assignment, we hope:

To understand in details the history and background of Mac OS

To find out what people know about Mac OS

To compare Mac OS with the other operating systems available in the market

To determine the population of MAC OS's users

To obtain feedback from the MAC OS's users about their operating system's performance

Methods of Execution

In order to obtain our objectives, the methods that we take are:

To do researches and gather information from the Web, text books and magazines.

To find out what the users themselves and the others know about Mac OS, we have divided our survey into two parts – the first part will be for non-Mac users and the second part will be for Mac users only. This survey will be conducted in HELP University College compound. We are aiming students as our main target and might include some of the lecturers, too. To make sure

our survey result is structured, we will only get around thirty respondents for each part.

Because the amount of Mac's users here are limited and the data obtained is insufficient, we decide to post our survey online instead of passing the surveys around.

The result will be recorded and converted into tables and graphs to make the data more interesting and understandable.

After doing so, the tables and graphs will be analyzed and analysis will be produced.

Description on Excel Worksheets

In this assignment, we are required to do a survey to gather responses from various groups of people on our topic ' Mac OS'. After that, the results will be recorded and analysis will be produced. To make the data more understandable and interesting, we have created three Excel worksheets and two relevant charts to represent the data.

The first worksheet is to find out what the public know about Mac OS. We have targeted 2 groups of people, ie. college students and lecturers. A six-question quiz is set to meet our requirements. After that, we have created a bar chart to represent the data. The second worksheet is to determine whether the public know about the advantages and disadvantages of Mac OS. In this worksheet, no charts will be created. The last worksheet is to check out what the Mac users themselves think of their operating system. In

the questionnaire, we have some questions that require the users to rate the performance of their OS and what they dislike about their OS. The results are then converted in to a pie chart.

Analysis

After completing the survey, we have finally collected enough responses for us to analyze the data.

In our first Excel worksheet, we have set a six-question quiz in our questionnaire to find out how much the public know about Mac OS. As the quiz is considered very general, we expect most of the respondents to score at least five out of six. However, it turns out that most people scored four out of six. These results show that most respondents have only little knowledge on Mac OS. According to our chart, only 5% of the students and 30% of the lecturers got excellent scores. Most of them get four or five out of six while a few of them get only three out of six.

In our second Excel worksheet, we ask the respondents to give us the advantages and disadvantages of Mac OS. We have set two multiple answers questions for the respondents. After analyzing the results, we have found out that most people are aware of the advantages and disadvantages of Mac OS as we have gotten a lot of correct responses from them. The correct responses that we received are three times more than the wrong responses that we received.

In our last worksheet, we get responses from the Mac OS's users only. At this part, we have asked the users to rate their OS's performance and what it is that they dislike about their OS. According to the results we have analyzed, 70% of them say that their OS's performance is excellent while 30% of them say it is average and none of them say it is bad. The users, who say their OS's performance is excellent, have nothing they dislike about their OS while the ones, who rated ' Average', dislike their OS for only two reasons, ie. have to convert projects from their computer to the format that are compatible with the school computer system and there are too little Mac users outside. From this, we can say that almost all of them do not have problems with the OS's performance.

Excel Spreadsheets

What public generally know about Mac OS

To find this out, a 6-question quiz is set in our questionnaire.

Occupation

Pass

Average

Excellent

Total

% in Pass

% in Average

% in Excellent

College students

3

16

1

20

15%

80%

5%

College Lecturers

1

6

3

10

10%

60%

30%

% in Excellent

Total

30

Note:

Scoring 3 out of 6 will be considered " Pass"

A

Scoring 4 or 5 out of six will be considered " Average"

A

Scoring 6 out of 6 will be considered " Excellent"

Do public know about the advantages and disadvantages of Mac OS?

Excel Worksheets

Sample Questions: In what aspects Mac OS is better than Windows?

a. Less virus attack b. Faster boot time

c. Easier to troubleshoot problems d. Can run more applications

e. Can run more graphical-based programs f. It is cheaper

Which are the disadvantages of the Mac OS?

A. Less reliable B. Limited Selection of software

C. Uses resource fork D. Low security

Total Correct Responses

109

Total Wrong Responses

16

Total

125

Occupation

a

b

c

d

e

f

A

B

C

D

Total Correct Responses

College Students

17

14

12

4

13

0

7

15

8

1

College Lecturers

4

4

5

2

7

3

0

9

1

0

Total

21

18

17

20

24

9

6

3

7

1

Excel Worksheets

What Mac OS's Users Themselves Think of the Performance of Their OS

Excellent

Average

Bad

Total Responses

% in Excellent

% in Average

% in Bad

Responses

14

6

0

20

70. 00%

30. 00%

0. 00%

What they do not like about their OS

Reasons

Excellent

Average

Compatibility Issue

0

4

Too Little Users

0

2

Other reasons

0

0

Conclusion

After completing this assignment, we have obtained most of our objectives. After doing researches on the history and background of Macintosh operating system, we have finally understood more about our topic which is Macintosh operating system. The population of Mac OS's users are few times lesser than the Windows' users in HELP. Next, we have also found out that most of the people in HELP do not know much about the operating system. Their knowledge on the general background on Mac OS is just in the average range. Our survey results have shown that most people are aware of the

pros and cons of the OS and the reason that stops them from using it might be the price of the OS. For Mac users, the only aspects that are bothering them are that they have to convert their projects into the format that can be read in the college's computers and there are too little Mac users around here; nevertheless, they are satisfied with the overall performance of the OS.