Brief history of computer by ajiboye daud

LITERATURE REVIEW OF COMPUTER HARDWARE Computers have evolved from the fundamental principles of mathematical calculation and language processing. The computing systems of today are an outcome of the efforts and intellect of mathematicians, logicians, linguists and technologists from all over the world. Computer history comprises the evolutionary journey of computing systems, the timeline of operating systems as well as the history behind the development of a wide variety of computer software and hardware. Bellow is the computer history in brief and the evolution of computers. How did the different types of computers evolve?

Here is a brief overview of the progress of computingtechnologyfrom calculators of the 18th century right up to the modern-day digital portable computers. Year| Technology Used| Before 1801| Calculators were the earliest computing devices. They were the only computation tools for long years before the creation of computers. | 1801| The years that followed were dominated by the use of punched cards for computing. The users used to submit programming assignments to a computer centre using stacks of cards. The programs used to be queued for processing and execution. | 1930 - 1960| Desktop mechanical calculators were built during the 1930s.

During the 1950s and the '60s, electronic desktop calculators came up. Analog computational technologies predominated this period. | 1940 - 1960| This p of time witnessed the emergence of the digital computing technology. Zuse Z3, ENIAC and EDSAC were some of the early digital computers. * First-generation computers were based on the von Neumann architecture. * The second generation computers were characterized by the replacement of vacuum tube by bipolar transistors. They were composed of printed circuit

boards. | After 1960| These years witnessed the development of the third generation computers.

They were based on integrated circuits. Computer systems of this period had large storage capacities and high processing powers. Multi-core CPUs became available in the 21st century. Laptops, palmtops, handheld PCs, notebook computers and tablet PCs are popular today. Computer development still continues. | Let us now look at the history and timeline of computing systems. Before moving ahead, it will be interesting to know when was the first computer made! Year| Event| 2400 BC| Abacus, the first known calculator was invented in Babylonia. It was a major step towards the era of computing that was to follow. 500 BC| Panini, an ancient Indian Sanskrit grammarian came up with the predecessor of the modern formal language theory. | 300 BC| Pingala invented the binary number system that serves as the foundation of computing systems the world over. | 1614| John Napier designed the system of movable rods, which used algorithms to perform the basic mathematical operations. | 1622| William Oughtred invented slide rules. | 1822| Charles Babbage devised the first mechanical computer. | 1937| John V. Atanasoff devised the first digital electronic computer| 1939| Atanasoff and Clifford Berry came up with the ABC prototype. 1941| The electromechanical Z machines by Konrad Zuse proved being an important step in the evolution of computers. | 1943| Colossus, which was able to decode German messages, was designed at Bletchley Park in Britain. | 1944| HarvardMark I, a computer with lesser programmability was designed. | 1945| John von Neumann described a stored program architecture, for the first time ever. This architecture was the heart of the

computer systems developed thereafter. This architecture, which came to be known as the von Neumann architecture is a part of every computer till today. 1946| The Ballistics Research Laboratory of the United States came up with the Electronic Numerical Integrator and Computer (ENIAC). It was the first general purpose electronic computer; but had an inflexible architecture. | 1950| The US National Bureau of Standards came up with the Standards Electronic/Eastern Automatic Computer (SEAC). It was the first computer using diodes for handling logic. | 1951| Lynos Electronic Office (LEO), the first business computer was developed by John Simmons and T. Raymond Thompson. UNIVAC I, the first commercial computer was designed in the United States by John Presper Eckert and John W.

Mauchly. EDVAC, the electronic discrete variable automatic computer was introduced. | 1955| Bell Labs introduced its first transistor computer. Transistors made computers energy-efficient. | 1958| Advanced Research Projects Agency (ARPA) was formed. This year also witnessed the making of the first silicon chip by Jack Kilby and Robert Noyce. | 1968| DEC launched the first mini computer known as PDP-8| 1969| The US Department of Defense founded the Advanced Research Projects Agency Network (ARPANET). It was established with intent to develop a computer network and is the predecessor of the Internet. 1971| Microcomputers came up with microprocessors and Ted Hoff at Intel, introduced 4-bit 4004. | 1972| This year witnessed the creation of 8080 microprocessors by Intel. | 1973| A minicomputer that was called Xerox Alto was developed during this year. It was an important milestone in the development of personal computers. | 1974| Researchers at the Xerox Palo Alto Research Center came up with Alto,

which was the first workstation with an inbuilt mouse. It had a fair amount of storage capacity and offered menus and icons. It could also connect to a network. 1975| Altair came up with the first portable computer. The foundation of the present-day relationship between portability and computing was laid way back in 1975! Tandem computers, the first computers with online transaction processing capacities were born during this period. | 1979| By 1979, more than half a million computers were in use in the United States. This number crossed 10 million by 1983. | 1981| The American National Standards Institute (ANSI) was founded. It was during the same year that the first 32-bit chip was introduced by Hewlett-Packard. | 1982| Intel announced the 80286 processor. 1983| In this year, the Time magazine nominated personal computer for the title 'machine of the year'. | 1985| Intel introduced the 80386 processor that consists of a 16MHz processor. | 1990| The World Wide Web was born. Tim Berners-Lee, a researcher at CERN, developed HTML. He came up with specifications such as URL and HTTP. He based the World Wide Web on enquiry-based system that used hypertext and enabled people to collaborate over a network. His first web server and browser became available to the public. | Till date| The development of newer versions of computer systems continues. |

An operating system is that software component of a computer system, which deals with the management of the different computer processes and the sharing of computer resources. It hosts computer applications and handles computer hardware. Take a look at the major events in the history of operating systems. Before going ahead, you might like to take a quick look at the different types of operating systems. Year| Event| 1954| MIT came up

with their operating system for UNIVAC 1103. | 1964| Dartmouth timesharing operating system was developed. | 1965| Multics was announced. However, it was opened for paying customers in October 1969. 1966| DOS/360 of IBM came up. | 1969| This year witnessed the development of the Unix operating system by AT; T. | 1976| CP/M was developed during this year. | 1980| OS-9 came up in 1980. | 1981| This year can be considered fortunate to have witnessed the development of MS-DOS. IBM had hired Paul Allen and Bill Gates to create an operating system in 1980. They used the operating system manufactured by the Seattle Computer Products as a template to develop DOS. | 1984| Macintosh operating system came up in this year. | 1987| It was during this year that MINIX, BSD2000 and OS/2 were developed. 1988| RISC iX, LynxOS and Macintosh OS (System 6) came up during this year. | 1989| This was the time when the RISC operating system was developed. | 1991| It was in 1991 that Linux came up. It is a Unix-like operating system, which is a free software. It was during this year that Minix 1. 5 was developed and Macintosh came up with System 7. | 1992| Solaris, the successor of Sun OS 4. X came up during this year. | 1993| Plan 9, FreeBSD, NetBSD and Windows NT 3. 1 came up during 1993. | 1995| OpenBSD and Microsoft Windows 95 came up during 1995 | 1996| Windows NT 4. 0 hit the computing market in 1996. | 998| 1998 witnessed the release of Windows 98 as well of Solaris 7. | 2000| Windows 2000, which hit the markets in 2000, was the first Windows server operating system to drop the 'NT' suffixed to its name. Windows ME, which was sold during this year, was the last operating system in the Windows 9x line. Red Hat Linux 6. 2E also came up during 2000. | 2001| Windows XP was launched and soon gained a

wide popularity. Windows XP 64-bit edition followed in 2002. | 2002|
Windows XP Service Pack 1 was released in 2002. | 2003| 2003 witnessed
the launch of the Windows 2003 Server as also the release of Red Hat
Enterprise Linux 3. 2004| Windows XP Service Pack 2 was released in 2004. |
2006| Windows Vista hit the markets| 2008| Windows Vista Service Pack 1
and Windows Server 2008 came up in 2008. It was also during this very year
that Windows XP Service Pack 3 was released. | Computers have always
been the most efficient computational devices. They have high processing
powers and are able to run and execute large programs. Programming
languages serve as the means to write programs on computer systems.
Thus, it is important to look at the timeline of the development of some of
the major programming languages.

Following is an overview of the important events in the history of computer
languages. Year| Programming Language Developed| Before 1950| The
ENIAC coding system was primarily used in computing| 1954-54| Fortran " 0"
was designed by a team at IBM. Fortran Implementation was developed by
John Backus at IBM in 1957. | 1956-58| John McCarthy came up with the
concept of LISP. | 1959| COBOL concept came up followed by its
implementation that was developed by the Codasyl Committee in 1960. The
LISP implementation was developed in 1959. LISP's successor, Common LISP,
came up later in 1984. 1964| IBM came up with PL/I concept. PL/M followed
years later in 1972. 1964 also saw the development of BASIC by Kemeny and
Kurtz. | 1969| Ken Thompson developed the B language. | 1970| This was
when Pascal was developed. | 1972| It was during 1972 that Smalltalk and
Prolog were developed. One of the most important events in the history of

computing was the development of C language. It was developed by Dennis Ritchie in 1972. | 1975| Scheme, the successor of LISP came up in 1975 as also Modula, the successor of Pascal. | 1978| SQL was developed at IBM in 1978. | 1979| REXX and AWK came up in 1979. 1980-83| C with classes was developed in 1980. Objective-C came up in 1982. 1983 witnessed the development of C++, one of the very popular languages till date. | 1985| PostScript and Object Pascal belong to 1985. | 1987| Perl that derives some of its features from C, as also from AWK, sed and sh evolved in 1987. | 1991| Van Rossum came up with Python. Visual Basic, developed by Alan Cooper, came up in the same year. | 1993| Ruby, which is considered a successor of Smalltalk and Perl, came up in 1993. | 1994| PHP was born in 1994. | 1995| ColdFusion belongs to 1995.

It was during this year that James Gosling at Sun Microsystems came up with Java. | 1996| Javascript was born in this year. ECMAScript, its successor came up in 1997. | 1999| XSLT, a language based on XML by the W3C and the Game Maker Language by Mark Overmars were born in 1999. | 2000| The D language and C# came up in 2000. | 2006| The development of Windows PowerShell by Microsoft was one of the significant events in computing that took place in 2006. | Looking at the speedily advancing computing technology, we can surely say that the future of computers is going to be as glorious as their history.