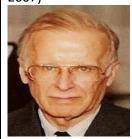
Exercise #1

- 1. What is computer?
 - According to GCFGlobal.org a computer is an electronic device that manipulates information, or data. It is capable of storing, retrieving, and processing data.
- 2. What are the essential parts of computer?
 - Base on GCFGlobal.org the basic parts of a desktop computer are the computer case, monitor, keyboard, mouse, and power cord. The hardware components of a computer are the central processing unit (CPU), memory, storage devices, input/output devices, and peripherals, as well as software components such as the operating system and applications.
- 3. Who are the notable inventors of hardware and software? Cite at least (5) Software developers and (5) Hardware developers

SOFTWARE	CONTRIBUTION	HARDWARE	CONTRIDUTION
Ada Lovelace (1815- 1852)	She is considered as the 1st computer programmer, she also created an algorithm intended to be processed by Charles Babbage's, making her the first that the machine could be used beyond pure calculation.	Charles Babbage (1791-187)	Charles Babbage's Difference Engine No. 1, the first automatic calculator, is a celebrated icon in prehistoric computing, showcasing precision engineering and success.
Alan Turing (1912- 1954)	A British mathematician and logician, considered a father computer science, developed the Turing machine, an abstract mathematical model that laid the foundation for modern computers.	Herman Hollerith (1860-1929)	Herman Hollerith, the father of modern machine data processing, revolutionized automatic data processing by using punched cards to store data instead of controlling looms.
Dennis Ritchie (1941-2011)	He is the co-creator of the C programming language and key developer of the UNIX system.	William Shockley (1910-1989)	William Bradford Shockley was head of the solid- state physics team at Bell Labs that developed the first point-contact transistor, which he quickly followed up with the invention of the more advanced junction transistor.

John Backus (1924-2007)



The one who led the team that developed FORTRAN (Formula Translation) the first widely used highlevel programming language, which revolutionized software development.

John von Neumann (1903-1957)



John von Neumann, a renowned computer scientist, developed the fastest computer, MANIAC, and made significant contributions to mathematical logic, quantum mechanics, economics, and game theory.

Donald Knuth (1938)



He is the author of the multi-volume work The Art of Computer Programming and has been called the "father" of the analysis of algorithms.

John Bardeen (1908-1991)



John Bardeen, a renowned theoretical physicist, won the Nobel Prize in Physics twice, in 1956 and 1972, for coinventing the transistor and explaining superconductivity.

- 4. Cite your reference/s (APA/IEEE)
- Peran, A. (2021). How Classical, Super and Quantum Computers Work. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3879680
- Johnson, C. (2022). Famous Computer Scientists Throughout History
- University of Minnesota (2021). Who was Charles Babbage?
- Max-Planck-Gesellschaft (2021). Ada Lovelace and the First Computer Programme in the World
- NSA (2021). Alan Turing 2014 Hall of Honor Inductee
- Meyer-Spasche, R. (2017). Some Remarks on the Impact of Computers on Mathematics and Physics
- Donald Knuth's Profile | Stanford Profiles. (n.d.). https://profiles.stanford.edu/donald-knuth#:">https://profiles.stanford.edu/donald-knuth#:">https://profiles.stanford.edu/donald-knuth#:">https://profiles.stanford.edu/donald-knuth#:">https://profiles.stanford.edu/donald-knuth#:">https://profiles.stanford.edu/donald-knuth#:
- Who was Charles Babbage? (n.d.). College of Science and Engineering. https://cse.umn.edu/cbi/who-was-charles-babbage#:~:text=The%20calculating%20engines%20of%20English,precision%20engineering%20of%20the%20time.
- HNF Herman Hollerith (1860-1929). (n.d.). https://www.hnf.de/en/permanent-exhibition/exhibition-areas/hall-of-fame/hermanhollerith18601929.html#:~:text=Herman%20Hollerith%20is%20the%20father,used%20them%20to%20store%20data.
- AMS Presidents: John von Neumann. (n.d.). American Mathematical Society. http://www.ams.org/about-us/presidents/31-von-
 - $\underline{neumann\#:} ``: text=John\%20 von\%20 Neumann\%20 is\%20 perhaps, at\%20 the\%20 time\%20 the\%20 fastest in the property of the pr$
- William Shockley Magnet Academy. (n.d.). <a href="https://nationalmaglab.org/magnet-academy/history-of-electricity-magnetism/pioneers/william-shockley/#:"https://nationalmaglab.org/magnet-academy/history-of-electricity-magnetism/pioneers/william/s20Rradford%20Shockley/\$20was%20head the%20more%20advanced%20Shockley/\$20was%20head the%20was%20head the%20was%20was%20head the%20was%20head the%20was%20

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