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**Explain the significance of Babbage calculating engine and the role of Ada Lovelace.**

Charles Babbage was an English mathematician and computer pioneer, who developed the design of the first automatic computer. Babbage's passion for mathematics developed a desire to create a machine that could accomplish arithmetic performance faster than humans, with the action to print the results. He codifies the machine to entertain with chess, checkers, and other games. It possessed memory information which gripped results until they were required to finalize a given calculation. The name "difference engine" was what Babbage referred to as his calculator. It composed of 8000 engineered brass, steel parts, shafts, gears, and disks operated by a hand crank. It was an effort to motivate human thought. Another invention was the analytical engine, a design of a massive digital computer carrying 25,000 parts. The appliance would be programmed to punch cards, obtain different memory and information, along with processing capability. Sadly, it was not built, due to insufficient monetary funds.

Ada Lovelace was an English mathematician, who faithfully supported her associate, Charles Babbage. She was known as the Bride of Science or as Babbage referred to her as his Enchantress of Numbers. She was Babbage's first computer programmer by creating a program for his digital analytical engine computer. She was the first to discern that a computer has restrictions, and it can only follow a program with instructions. She wrote about how the program worked and operated, explaining its capacity and philosophical implications. The United States Department of Defense, from the military computer control system, named their programming language "Ada", as a special recognition for her contribution in computer development. (Schulz 28).

**References**

Schulz, Duane P. & Schulz Sydney Ellen. 2015. *History of Modern Psychology 11<sup>th</sup> Edition*. ISBN-13:978-1-111-82932-2. pp. 25-27. 28.