Artificial intelligence (AI) is a branch of computer science that enables machines to perform tasks that typically require human intelligence, such as problem-solving, decision-making, and language understanding. AI systems are based on rule-based programming, where every possible scenario must be predefined by programmers, allowing the machine to respond accordingly. Modern AI applications include natural language processing, computer vision, robotics, and autonomous systems, revolutionizing industries such as healthcare, finance, and transportation. AI can be categorized into narrow AI, which is designed for specific tasks, and general AI, which possesses human-like reasoning abilities and can perform any intellectual task that a human can.