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Nowadays due to widespread internet usage, digital contents are easily distributed throughout the world. Digital media products are subjects of piracy and plagiarism. Therefore, protecting them against illegal copyright is a major concern for many digital forensic experts. Digital watermarking can be employed as a reliable way to embed a message into multimedia documents to resolve copyright ownership concerns. Robustness, invisibility, and capacity are three major characteristics of a watermarking algorithm. A watermarking system is considered invisible if original cover image and watermarked image are not perceptually distinguishable. A robust watermarking system is able to withstand against attacks such as filtering, compression, and so on. The capacity of a watermarking system is the maximum amount of message can be inserted in a cover image without noticeable loss in the quality of the image. In this paper we analyze these characteristics by investigating a number of watermarking approaches. (Received August 21, 2018)