

**60-499 Project**  
**Interactive JPEG Encoding**

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**Prerequisite:** 60-212, 60-254 and motivation to work

**Group Members:** 2

**Description:** JPEG is a very popular and commonly used image file format. It is a lossy compression scheme such the size of compressed image is inversely proportional to the desired quality of image.

JPEG is not a single compression algorithm but involves a suite of algorithms, most important among them is the discrete cosine transform (DCT). A perceptual model based loosely on the human psycho-visual system discards high-frequency information. Another important step in JPEG compression scheme is called quantization which is primarily a method for optimally reducing a large number scale into a smaller one.

This project has following objectives:

- Study and learn JPEG compression / decompression algorithm.
- Implement JPEG compression engine on all or a selectable portion of image.
- Visually convey the information on a small selectable portion of image as it is being processed through an interface.