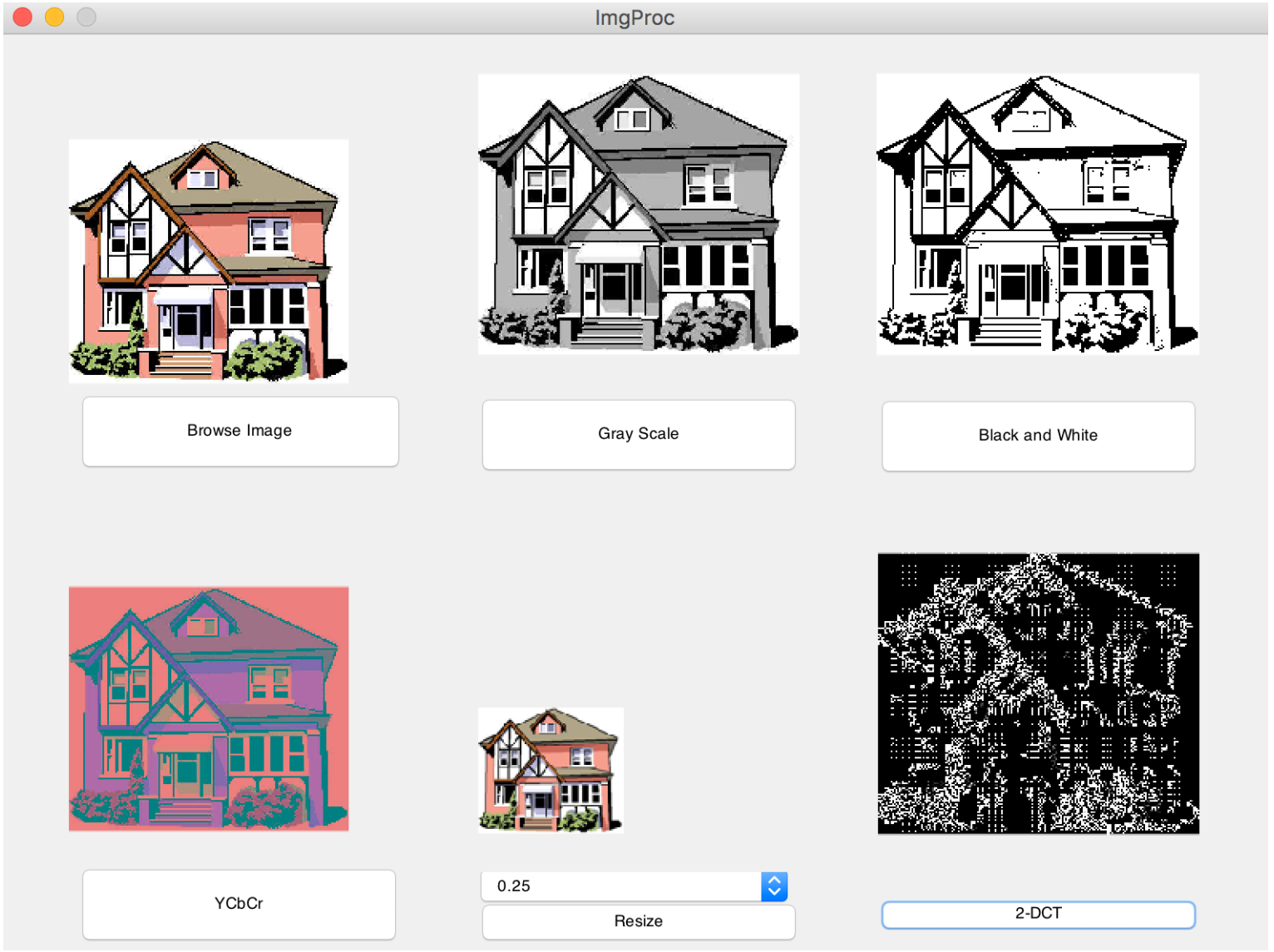
NTNU

Norwegian University of Science and Technology

Project: Lossy JPEG Encoder & Decoder



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Project Work

- You are required to implement a Lossy Encoder and a Decoder.
- The encoder and decoder should work on the principle of JPEG.
- Each step of the encoder and decoder process should be coded as a separate function.

Requirements

1. Matlab Implementation of Lossy Encoder & Decoder.
2. Implementation of GUI.

- Separate functions for each step.
- Clearly commented & well structured functions.
- Embedded documentation: inside each Matlab function or script.

Evaluation Criteria

- Compress and Decompress the bitmap image using your Encoder and Decoder.
- Evaluation of compression rate (bit/pixel) and distortion (RMS error) before and after compression.

EXTRA

- MSE / PSNR
- Evaluate perceptual degradation after embedding.

Deliverables (*Week 20*)

- Presentation of your project work in 20-30 min.
- Project report.
- PowerPoint presentation file.
- User manual.
- Software code in MatLab.