Digital Image Processing (ELL715)

Assignment 3

1. Design the Interactive Interface: Devise an intuitive user interface that allows users to upload images and interactively mark areas of their choice, they may assume some object is present.
   Bonus: Provide options for drawing, outlining, or applying brush strokes.

2. Implement Background Subtraction: Develop an algorithm that intelligently subtracts the background of the image based on user markings.

3. Innovative Object Highlighting: Design a creative way to highlight the segmented objects within the image.

4. Real-time Object Detection: Integrate real-time object detection using pre-trained models or custom algorithms. As users interact with the image, the system should instantly identify objects based on their markings.

Instructions:

1. Use images from the ImageNet dataset for implementation. Choose the images according to your network.
2. Submit a PDF with code (with comments), Results and Conclusion.
3. Submit the interactive code separately (with read me, if required) to run with any test image.