

Table 1: Revision History

Date	Developer(s)	Change
September 26th, 2016	Team NAR	Rev0 - completed txt file
December 7th, 2016	Team NAR	Rev1 <ul style="list-style-type: none">• converted txt file to LaTeX file• fixed grammar and sentence structure

SE 3XA3: Problem Statement

TheLenaProject

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1 Introduction

Images are like finger prints, each file has its own unique characteristics. Nonetheless, we all encounter the same problems with our digital images repeatedly. Pictures can always use a little flavour and to tackle this problem we present to you TheLenaProject which is an application that allows you to process images using photo filters such as gray scale, edge detection and invert. Whether you use images for entertainment or business this image processing application will fulfill your needs. Correcting these problems will go a long way toward improving a digital photo.

2 Importance

Images are an important factor within our life and society. Photos can mean cherishing memories while to others it could be their entire professional career. Photographers, directors, and artists all rely on photos and being able to alter those photos in different ways to their preference can give them that competitive edge. Image filtering could be the difference between a home video and a Hollywood block buster. For some, it may just be a fun way to fight boredom and share your photos with all your friends on social media. What may seem to be such a trivial problem can prove itself to be more important and valuable depending on the individual's needs.

3 Context

The target of this project is to develop a program capable of importing and exporting an image. During the process the image can be processed into 3 different filters then exported into various available raster image formats.

Stakeholders include: social media users (Instagram, Snapchat), photo/video

editors, Team NAR (us), Spencer Smith (Professor) and future developers who may take over the project if it requires more man-power.

Our project will be coded in the Java environment using the Eclipse IDE. For our GUI we will be implementing the JFrame library, and running the program as a Java application. To apply the filters we will be using the Marvin framework plugin. The program will be available to run on PC, Macintosh and Linux devices.