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| Senior Project Proposal |
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|  | Student Name: Lexa Mosby |
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|  | Advisor: Dr. Hayes |
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|  | Expected Graduation Date: May 2022 |
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|  | Problem Statement: |
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|  | In a technologically driven society that revolves around photographic |
|  | documentation, |
|  | we should be allowed access and opportunity to decent photo editors. Yet many |
|  | people do not have access to a decent photo editing app, with decent features. |
|  | Young adults and teenagers are wasting money on costly subscriptions |
|  | for photo |
|  | editing software just to get their hands on features they don’t know how to use. |
|  | And if they don’t buy the subscription, access to a majority of the photo editing |
|  | features are restricted. I propose building a photo editor to have features |
|  | that allow the user to make changes to and edit their photos. This solution |
|  | would be beneficial for those that want to edit photos without putting in a large |
|  | investment of time and money or have complex photo editing knowledge. |
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|  | Product Description: |
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|  | a C++ project constructing a Bulk image manipulation tool. This manipulation |
|  | tool would have features divided by categories, (e.g., colors, sizing), that |
|  | allow the user to choose what changes they want to make to a photo, and submit |
|  | to do those changes all at one time instead of making one change at a time. |
|  | Examples include cropping, custom size editing, color filters, photo effects, |
|  | auto white balance, stickers, etc. |
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|  | \*\*Proposed Implementation Language:\*\* C++ |
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|  | \*\*Libraries, Packages, Development Kits, etc. to be used:\*\* QT |
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|  | \*\*Additional Software/Equipment Needed:\*\* QT IDE |
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|  | Personal Motivation: |
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|  | This project will further the student's knowledge by allowing them to do expand |
|  | their skills in a language they know by learning new techniques and concepts |
|  | outside of their current capabilities and expertise |
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|  | Future Research: |
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|  | - Researching/learning how to use QT through tutorials, so that I am familiar |
|  | with the software that I am using to develop my product with. |
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|  | - Learn about the different packages available in the QT software to |
|  | familiarize myself with the IDE and utilize helpful features in my project. |
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|  | - Researching and learning how to implement events in C++, so that the user |
|  | can click buttons and do actions to actively edit their photo. |
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|  | - Research and learn front-end/back-end development methods that I am not |
|  | familiar with in C++ so that I can make the product and make it look neat |
|  | and presentable. |
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|  | - Researching how to control image view and image changes through QT IDE for |
|  | presentation and functionality of photo editing features. |
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|  | - Research how to access and add certain features that can change an image to |
|  | add into the project, for example: how to add a color filter onto a picture. |
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|  | - \*\*Anticipated Schedule\*\* |
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|  | | \*\*Description\*\* | \*\*Start Date\*\* | \*\*End Date\*\* | \*\*Duration\*\* | |
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|  | | 1) Start Design: | | | | |
|  | | Create test plan | 08/23/2021 | 09/03/2021 | 11 days | |
|  | | Complete further research on QT IDE usage, tools, and packages before development starts | 08/23/2021 | 08/30/2021 | 7 days | |
|  | | 2) Start Development: | | | | |
|  | | Complete basic front-end model of project | 09/01/2021 | 09/15/2021 | 15 days | |
|  | | Implement test plan | 09/15/2021 | 10/08/2021 | 23 days | |
|  | | Incorporate events into the project with minimal features such as crop, custom resize, and preview | 09/15/2021 | 10/08/2021 | 23 days | |
|  | | Complete test plan | 10/08/2021 | 11/12/2021 | 36 days | |
|  | | Add more features such as color filters, effects, auto white balance, etc. | 10/08/2021 | 11/12/2021 | 36 days | |
|  | | Adding additional features to project | 11/15/2021 | 12/10/2021 | 25 days | |
|  | | Defense: | | | | |
|  | | Complete Final Report | 01/10/2022 | 02/11/2022 | 32 days | |
|  | | Complete Project Presentation | 02/14/2022 | 03/28/2022 | 48 days | |