USER GUIDE

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1.0 End User Guide

This guide is for the users who want to run the GUI part of the application. This is assuming that everything was properly installed as guided later in this report.

1. The first thing you need to do is to run the application navigate to the folder where the program is installed at. In my case it is seen in the photo below. Type cmd into the highlighted area and hit enter.
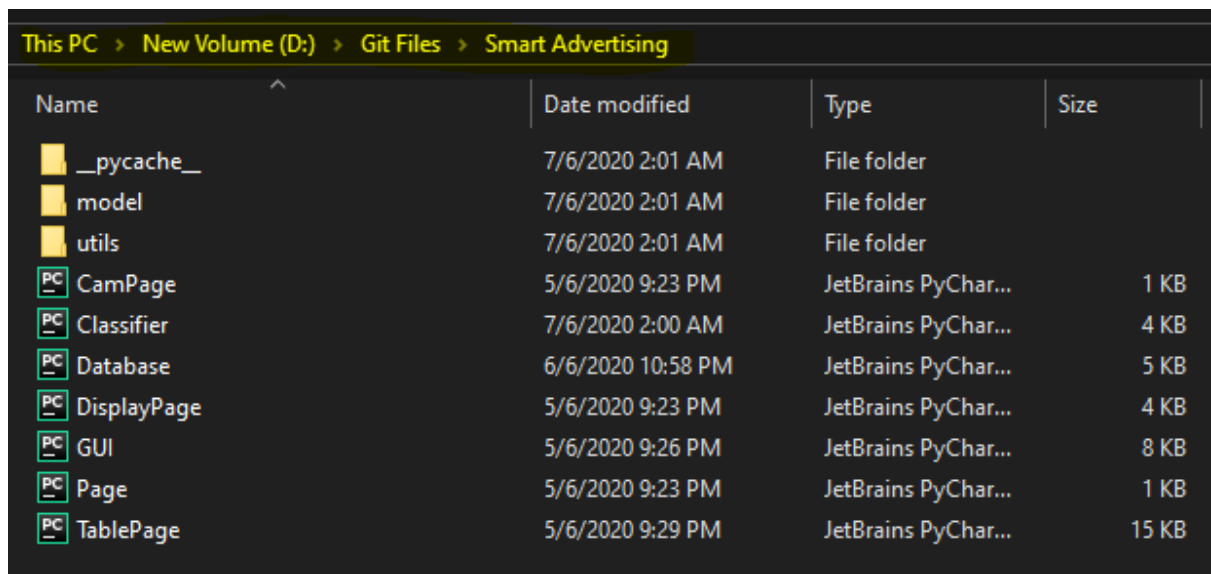

Figure 6.0.1: Windows Explorer address bar.

2. This window should appear and type "python GUI.py" without the quotation marks as seen in the photo. Once typed hit enter. If there are any errors when running this, please go to Technical User Guide to check if all the libraries are installed properly. Do not worry if you do see redlines within the console command. Those are there to tell technical user some important information.
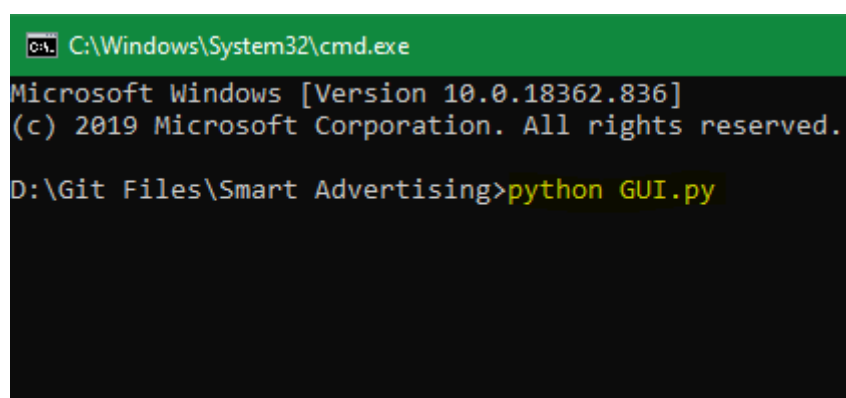

Figure 6.0.2: Command Prompt.

3. You have Successfully Launched the Program. This would be a variation of the page you would see. Note the header colour green is based on different platforms and themes used on those platforms.
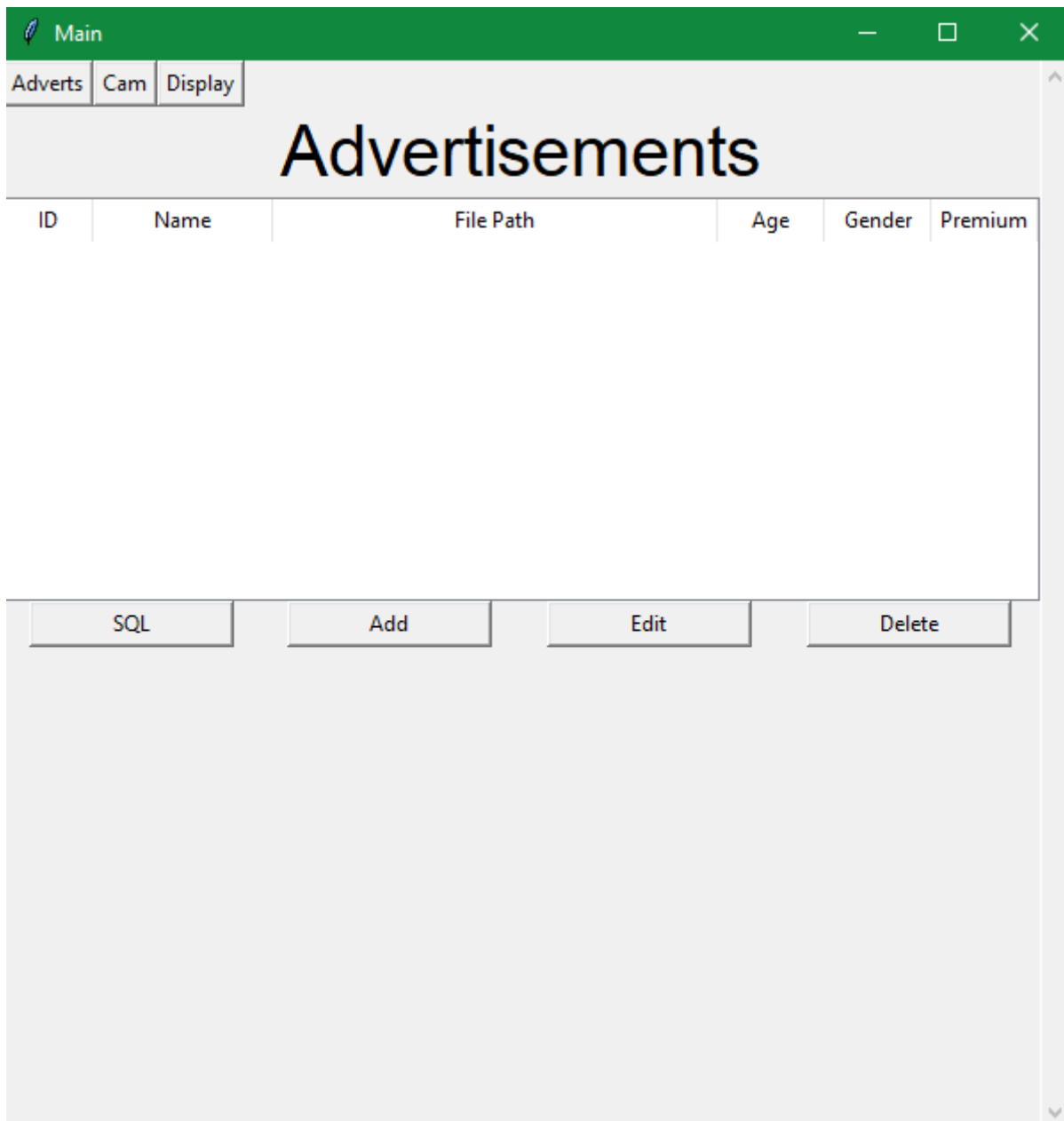

Figure 6.0.3: Smart Advertising Application.

1.1 Adding Advertisements

If you would like to add a new advertisement, click the add button on the Adverts page. Make sure you do see this page.
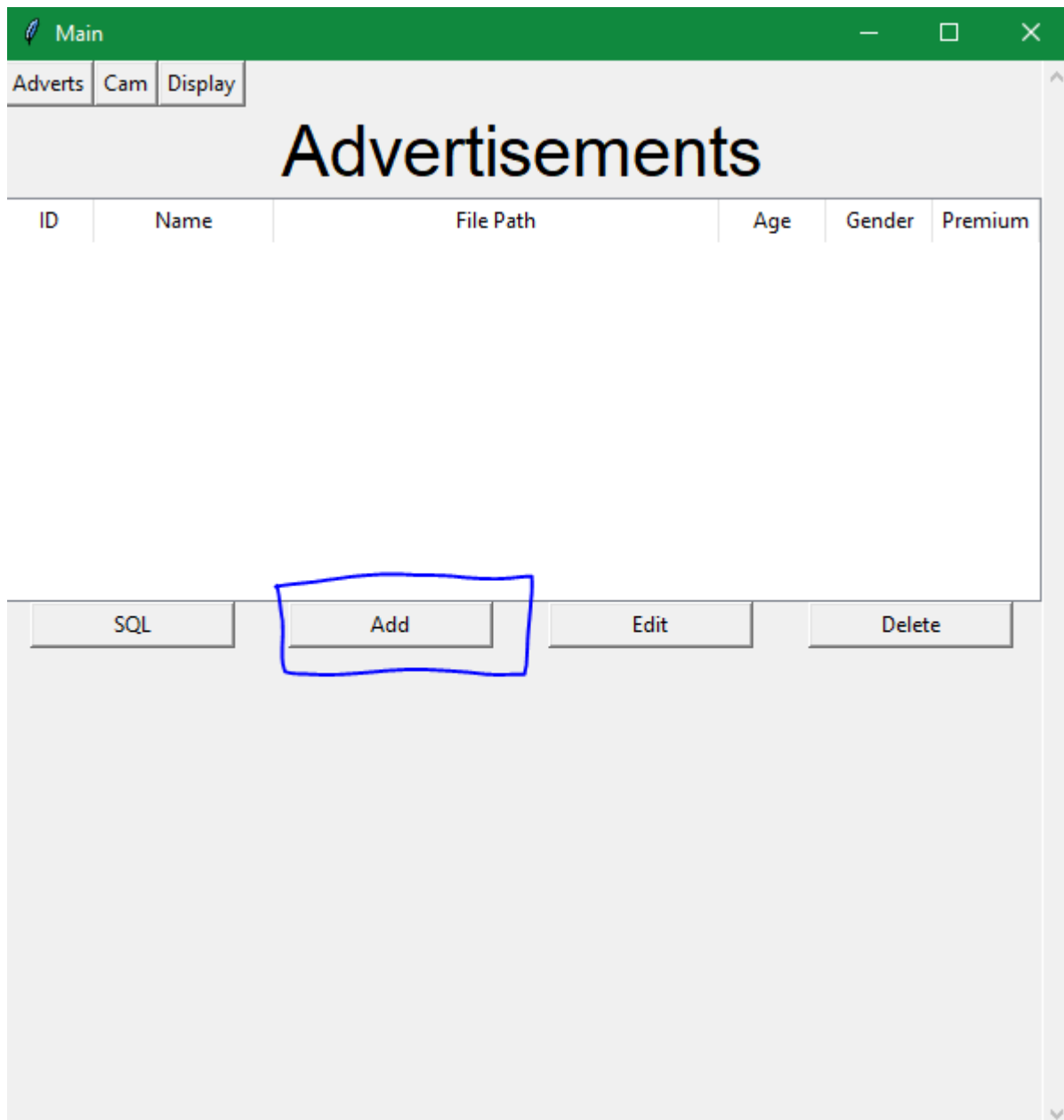

Figure 6.1.1: Smart Advertising Application with circled Add.

1. Once clicked this window should pop up.
   a. Company ID – Has to be only in numbers (make sure it is not the same ID as other companies)
   b. Company Name – The name of the company
   c. File Path – Click the button to select a file to use (refer to the file path choosing section of the user guide)
   d. Age – select the age group the company's target audience would be
   e. Gender – select the gender group the company's target audience would be
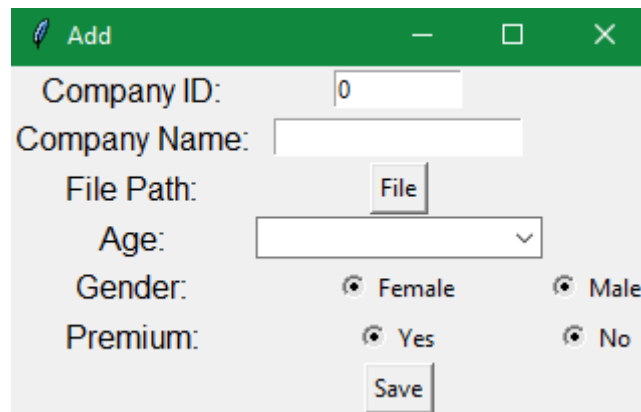   f. Premium – This are companies that pay a premium price to be featured more frequently.

Figure 6.1.2: Smart Advertising Application – Add Window.

2. Click the button save once you're done.
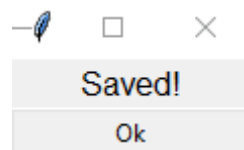   a. If you're successful in saving it this will appear.

Figure 6.1.3: Saved Window.

   b. If you're not, this will appear. Do check through what you have inserted into the boxes and refer to the previous guideline on how to fill the information.
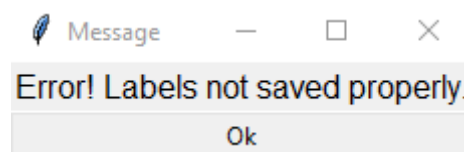

Figure 6.1.4: Error Window for Add Function.
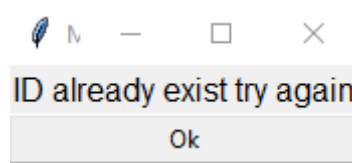
c. This is when the Company ID has already been used

Figure 6.1.5: ID exist window off Add Function.

3. Click okay for all scenarios to finish adding a new advertisement. It will then be reflected in the table.

1.2 Editing Advertisements

If you want to edit an advertisement, select the row by clicking it and then clicking the edit button. The row that is highlighted as seen below will be the one that is going to be edited.
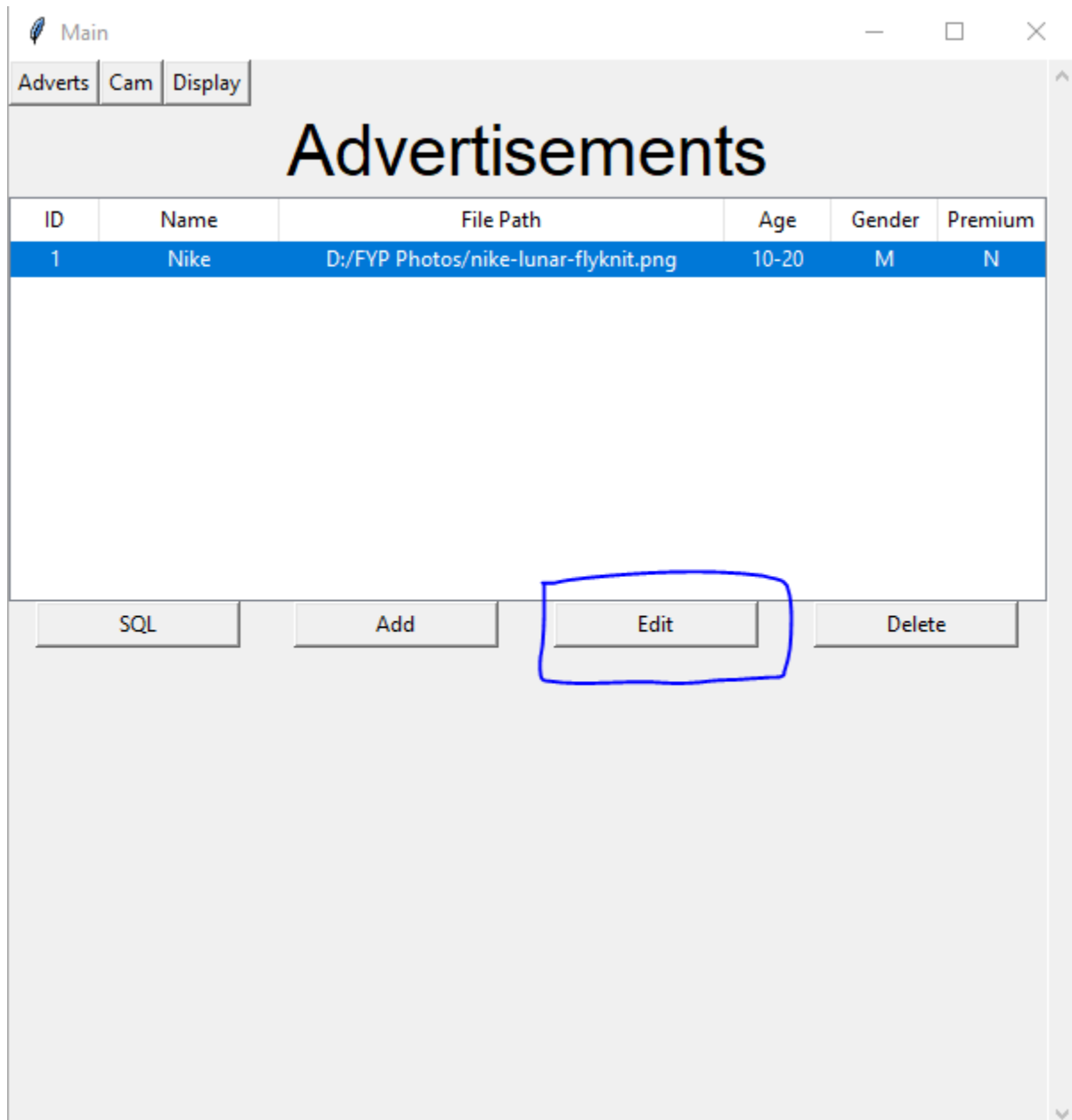

Figure 6.2.1: Smart Advertising Application with circled Edit.
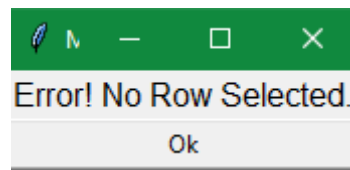
If you do not select a row this window will pop up.

Figure 6.2.2: Error Window when no row is selected.

1. Once you clicked it you would get this window.
   a. Refer to Adding a new advertisement to see how to add Age, Gender and Premium.
   b. The Company ID and Name can't be edited but you can edit everything else. For those parts you do not edit, the program will take what it was once originally.
   c. For file path do refer to the file path section if you have any confusion about it.
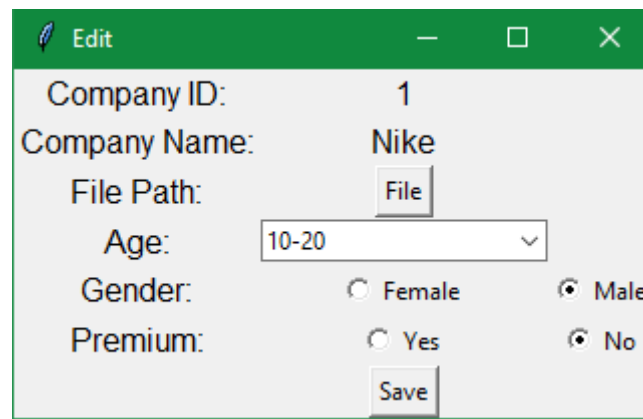

Figure 6.2.3: Smart Advertising Application with circled Edit.

2. Click the button save once you're done.
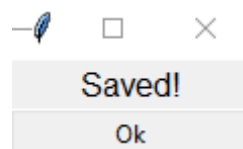   a. If you're successful in saving it this will appear.

Figure 6.2.4: Saved window from Edit function.

b. If you're not, this will appear. Do check through what you have inserted into the boxes and refer to the previous guideline on how to fill the information.

Figure 6.2.5: Error window for Edit function.
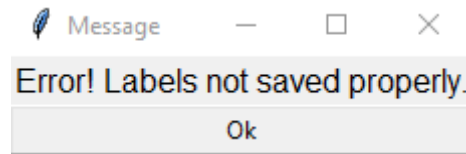
3. Click Ok to finish editing an advertisement and it will appear in the table.

1.3 Deleting Advertisements

If you want to delete an advertisement, select the row by clicking it and then clicking the delete button. The row that is highlighted as seen below will be the one that is going to be deleted.
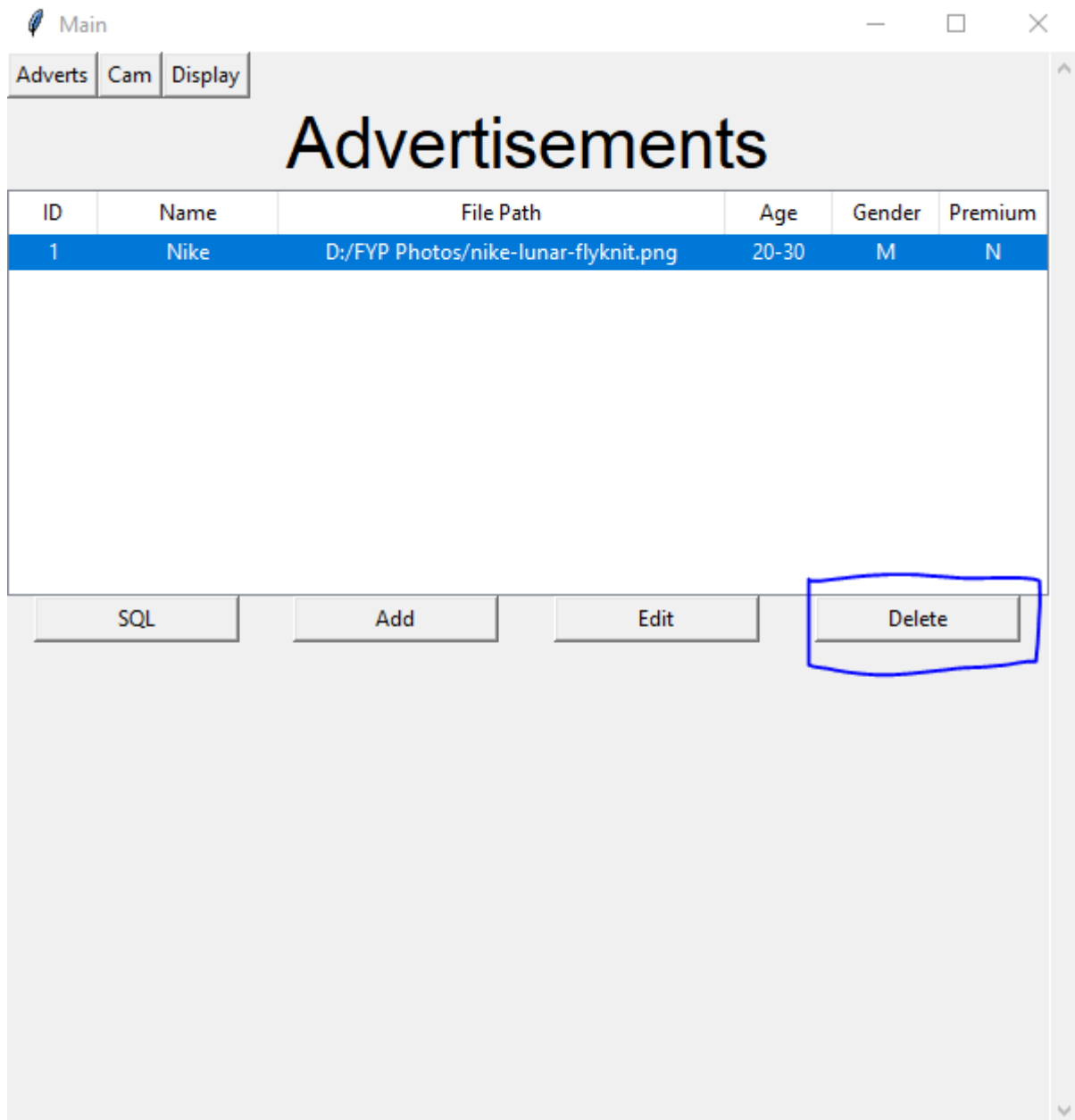
Figure 6.3.1: Smart Advertising Application with circled Delete.

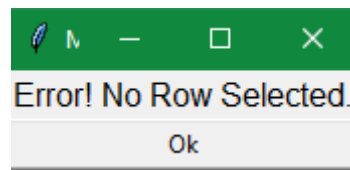If you do not select a row this window will pop up.

Figure 6.3.2: No row selected for delete function.

1. This window will appear to ask if you want to really delete it. Click yes if you are sure and no if you are not sure.
   a. The name and id of the advertisement will appear on the delete page to make sure you are deleting the right one
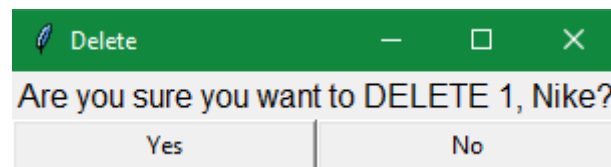
Figure 6.3.3: Confirmation Window to delete row.

1.4 Selecting File Path

This is for selecting the file path after clicking the File button.

1. Navigate to where the photo (advertisement) is at.

2. Once you're there select what file type the photo is and then double click on the photo or click open and the photo directory will be saved.

3. Use an advertisement that 1920x1080 full HD (High Definition) resolution for a standard screen. However, fit the resolution picture according to the available screen.

Figure 6.4.1: Windows Explorer selecting photos.

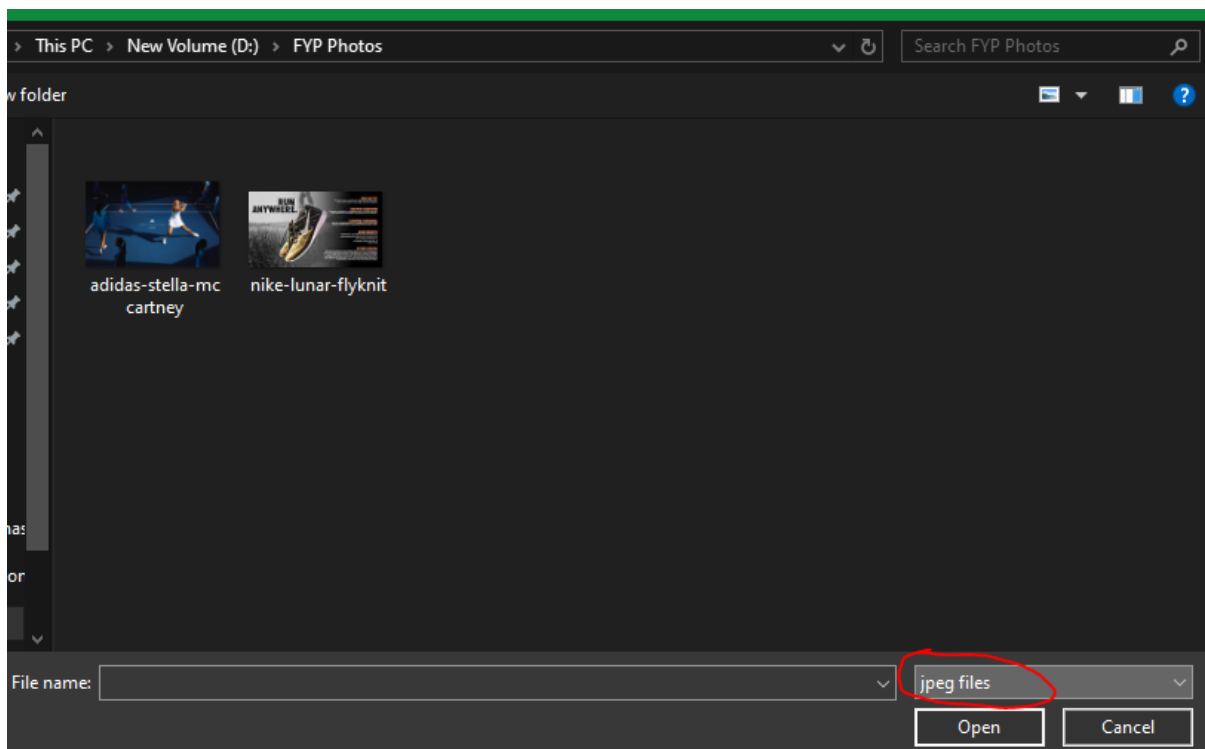## 1.5 Viewing webcam

When you want to view the webcam footage that is currently being computed click on the Cam button on the top of the page and you would enter this page of the window.
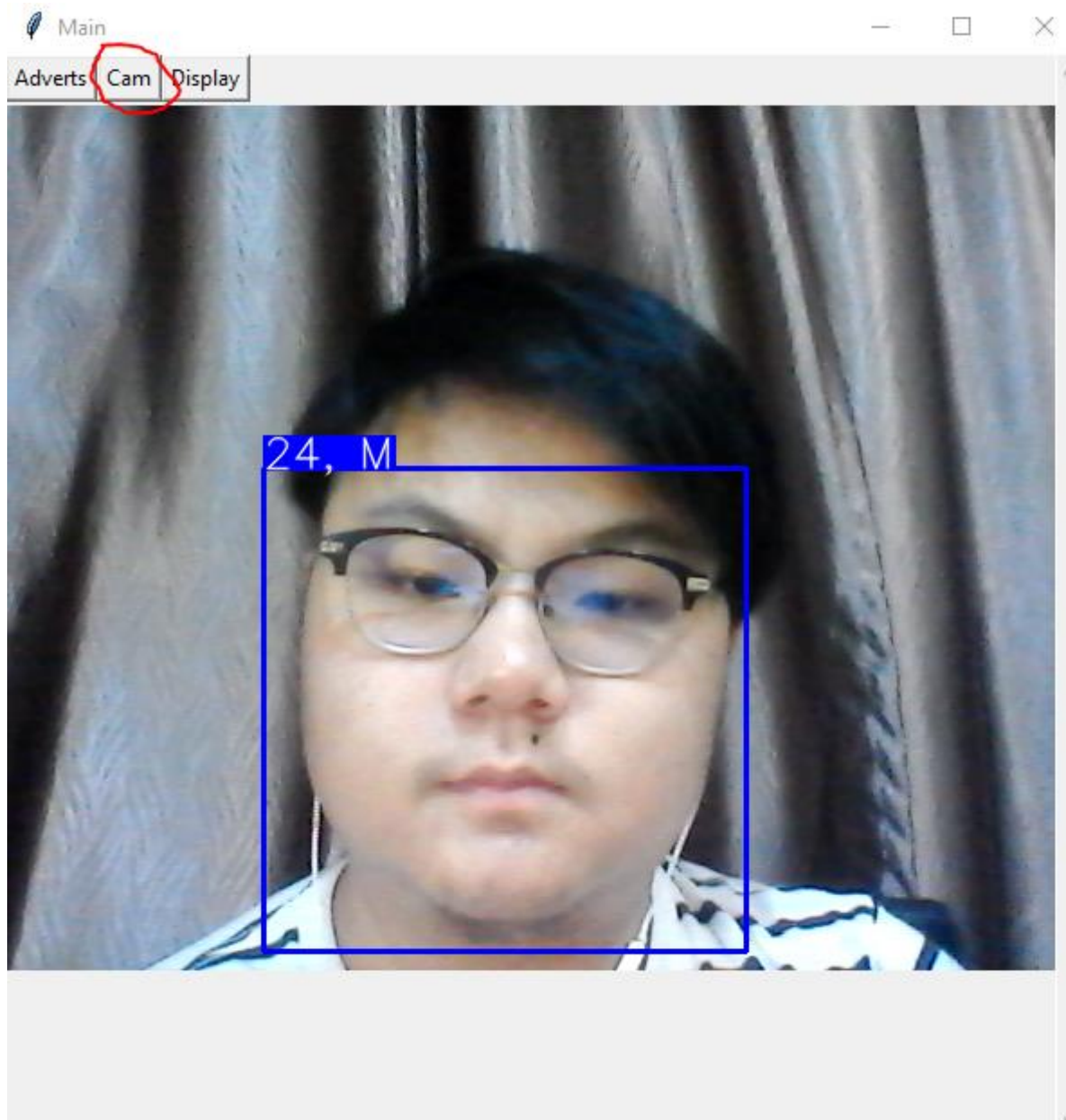

Figure 6.5.1: Smart Advertising Application under cam page.

1.6 Display Advertisements

When you want to display the advertisement click on the display page then the display button to run the display functionality.

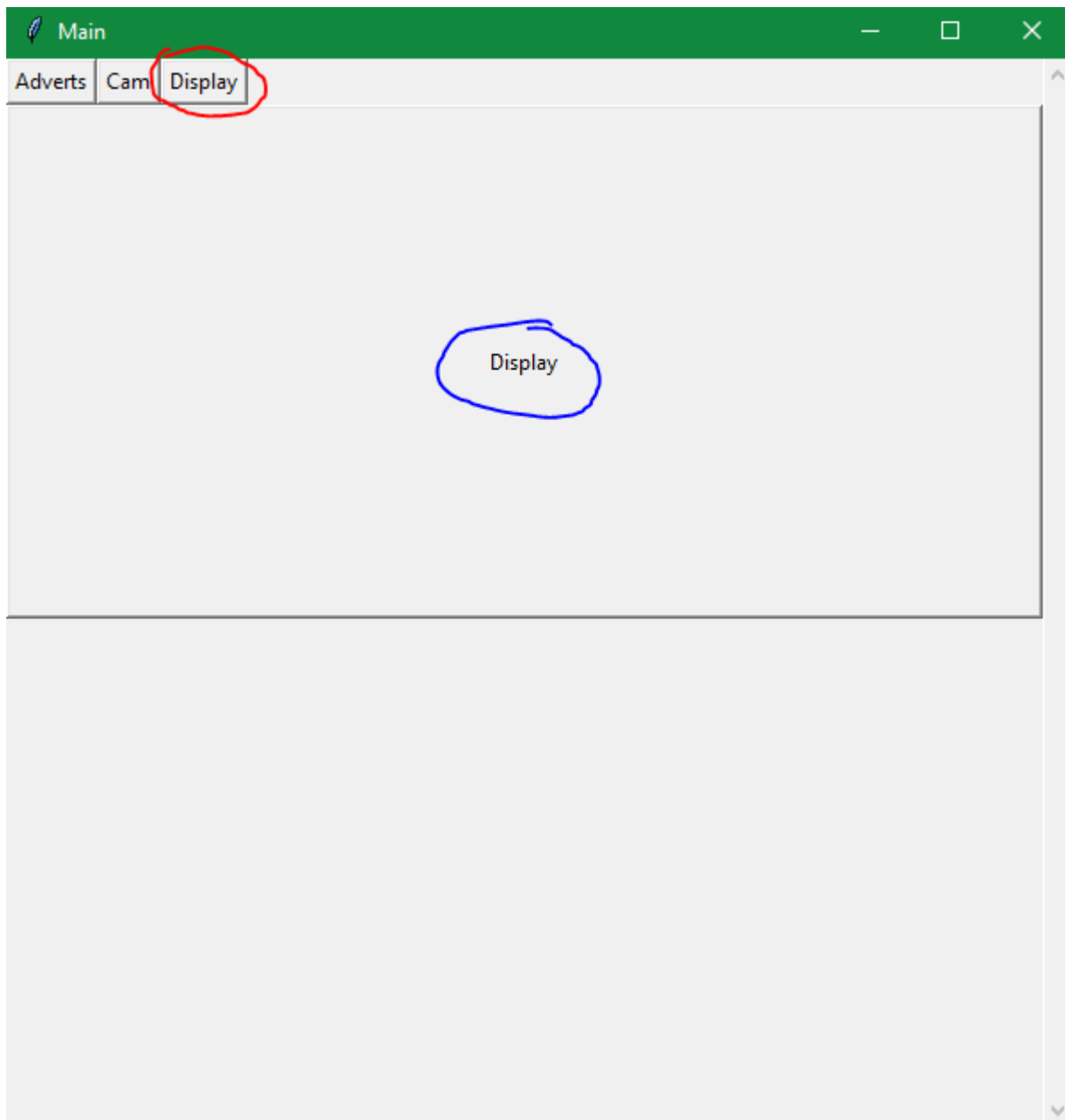*Figure 6.6.1: Smart Advertising Application under Display Page.*

1. Once clicked the program will enter full screen mode and the ad will play based on age and gender classifications.
   a. **EXIT FULL SCREEN:** Press ESCAPE on the keyboard
   b. **ENTER FULL SCREEN:** Double click on the window with the advertisement (Photo Below).

Figure 6.6.2: Pop Out window for Full Screen Advertisement Display.

2. If you do close or do not you are able to see a preview of what the full screen display would see in the main window.

3. Click on the display button once more if you have closed the full screen window in order to activate the display advertisement again.
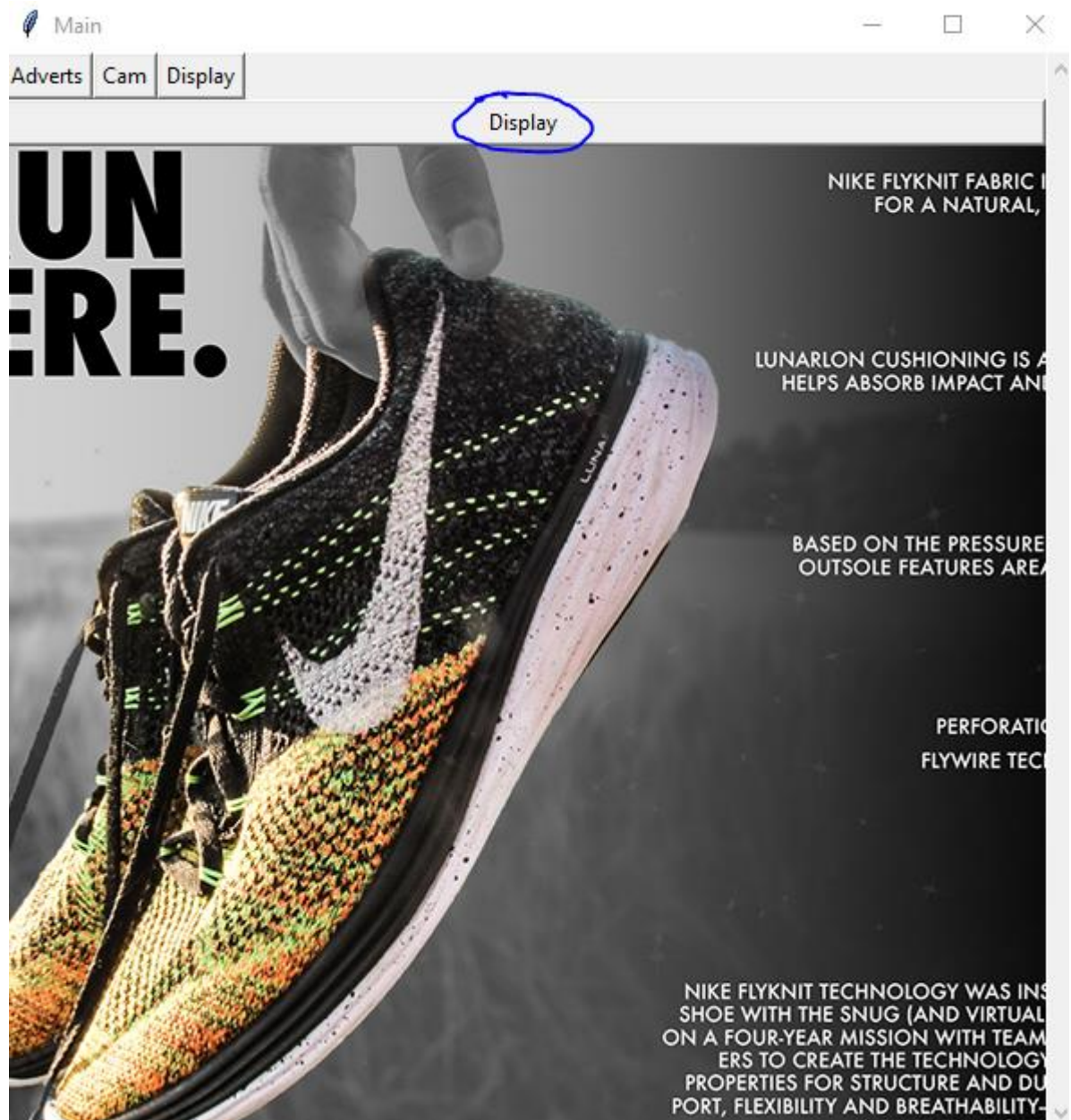
Figure 6.6.3: Smart Advertising Application under Display Page after the display button has been clicked.

1.7 Running SQL Commands

This is only for the technical users who would like to specifically change certain things from the SQL. I would recommend no one uses this unless really deemed necessary. If you are using it this is the user guide to do so. Select the SQL button on the Adverts Page.

Figure 6.7.1: Smart Advertising Application with circled SQL.

1. Once selected the below should appear.

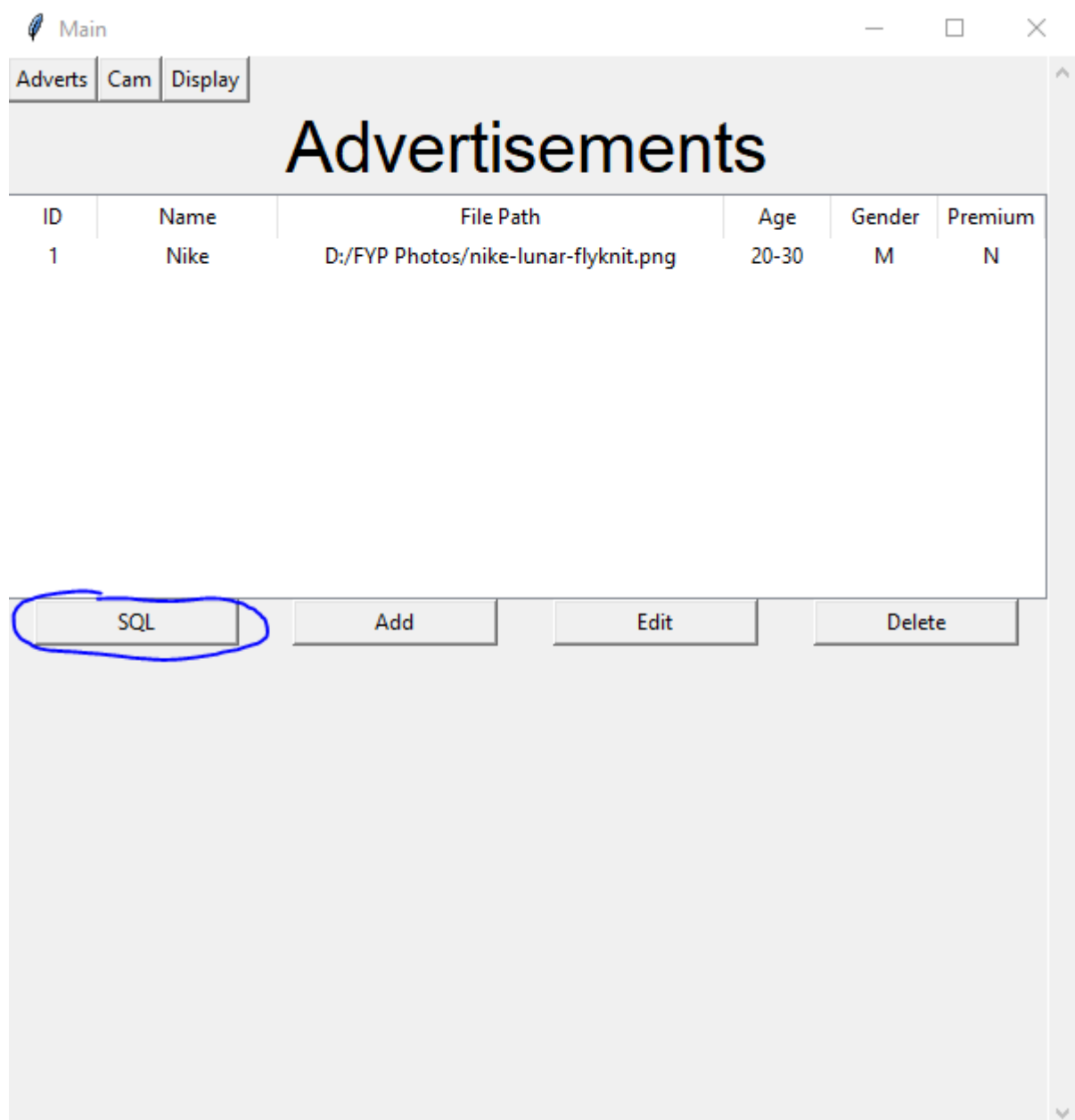   a. Type in the command wanted.
    b. The command in the text box is defaulted to bring a row based on the id back when wrongly deleted as the database does a soft delete.
    c. Click run to execute it.

Figure 6.7.2: SQL Command Window.

2. There will be two scenarios after run is clicked
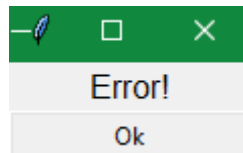   a. The command does not run

Figure 6.7.3: Error window under SQL function.
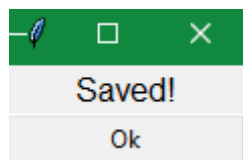
    b. The command does run

Figure 6.7.4: Saved window under SQL function.

3. Click Ok and the updates will result within the table.

2.0 Technical User Guide

This is the user guide on the certain actions needed to be done before running the program. The most important being what libraries and languages to download and install into the system. The program is written with the idea that all of the below will be installed correctly into the system before running it.

2.1 Installation Guide

1. Download and install python from the website: Windows, MAC OS, Linux. Make sure that the installation you have selected is for your operating system and it is **64-bit**. Any python version from 3.7 to 3.8 is alright. You would need to make the python into a path variable. Find the location where your python.exe is installed and use this link to make it a path variable.
2. Download and install Cmake. Most importantly is to get Cmake to be an environment PATH variable in the computer and the 64-bit installer is used. The folder you would need to make it a PATH variable is the bin folder. Do ensure you do that before installing other packages. Here is a link on how to make it so.
3. Install pip and follow the directions on the link.
4. Launch command prompt under administration and run the following commands. Ensure that this are the version being installed as well.

Commands	Versions
pip install tensorflow	2.2.0
pip install Keras	2.3.1
pip install dlib	19.19.0
pip install pandas	1.0.3
pip install numpy	1.18.4
python -m pip install --user numpy scipy matplotlib ipython jupyter pandas sympy nose	0.16
pip install scikit-learn==0.20.4	0.20.4
pip install tqdm	4.46.0
pip install scikit-image	0.17.2
pip install Cython	3.0 alpha 5
pip install opencv-python	4.2.0.34
pip install Pillow	7.1.2
pip install serial	0.0.97

Table 7.1: Table Listed with commands to install on the command prompt with indications to what version must be installed.

5. Download the application from this link.
6. Once all packages are done installing, you can run the program. Refer to the earlier sections on how to run the program.