

User Guide - GradeAnalitica

CSE 360

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Fabian Carcamo

Augustus Crosby

Kaodilichi Nwuda

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Introduction

GradeAnalitica™ is a resource for teachers, educators, and everyone who needs to keep track of grades with one simple, easy-to-use program. This user guide will give an introduction as to what the uses and capabilities of this program are, the system requirements, how to get started, navigate the program and the use of all functionalities, as well as troubleshooting error messages.

Overview

Using GradeAnalitica™ allows instructors to more efficiently manage the logistics of grading for their courses. With a simple and user-friendly display; various statistics and analytics from a set of given grades helps an educator better understand their students. To better specify, it's possible to view the highest score, average grade, median, grade distribution, and percentiles(which can be adjusted from potential grades to actual). In addition, more functions include conforming grade cut-offs and deleting, replacing, or adding a grade. With a few more uses to discover, GradeAnalitica™ allows for a better management system that benefits not only instructors but others who seek to further understand their given data.

Installation/System requirements

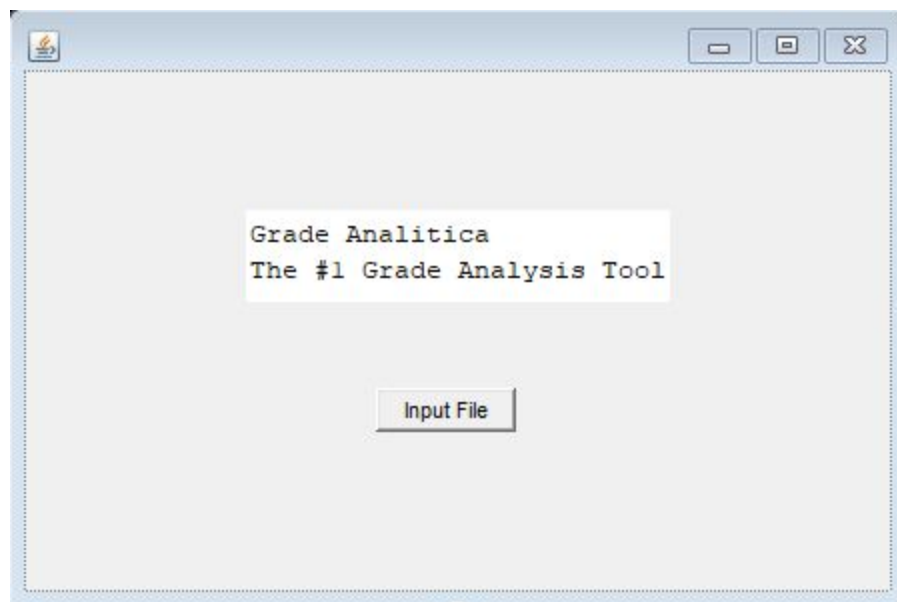
This program will be formatted in a .jar file. Therefore, in order to properly run GradeAnalitica™ the computer must have *Java Runtime Environment*; if you are unsure as to whether or not the computer already has *JRE*, click [here](#) for instructions to find out

how. On the other hand, if *Java Runtime Environment* is not installed, the steps needed in order to install it can be found by clicking [here](#).

In addition, GradeAnalitica™'s efficient layout and design allows it to be ran on virtually every computer.

Getting Started

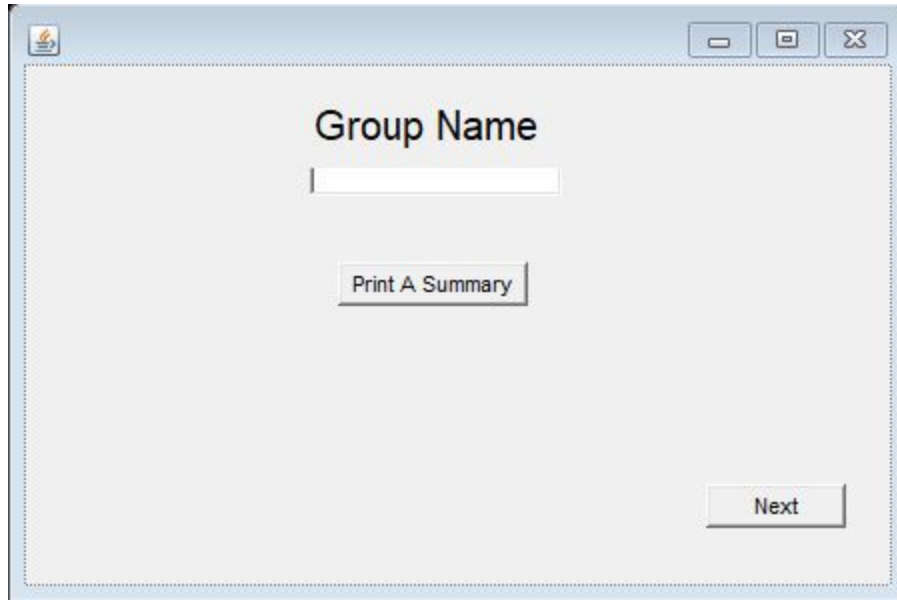
GradeAnalitica™ starts by opening up the Home Screen and asks whether or not a text file (.txt) is to be imported. The text file must contain a number value indicating the number of points received for that specific assignment in each line. If the text file is not a .txt file or doesn't contain only 1 number on each line, an error will display (See **Error Messages**). While not required, importing a text file is a useful function of the program with the alternative being to input each grade one by one, which will be discussed in a later section (See *Adding, Removing, and Changing Individual Grades*).



```
89
65
76
45
99
92
88
73
71
68
79
100
38
89
78
65
72
90
44
90
```

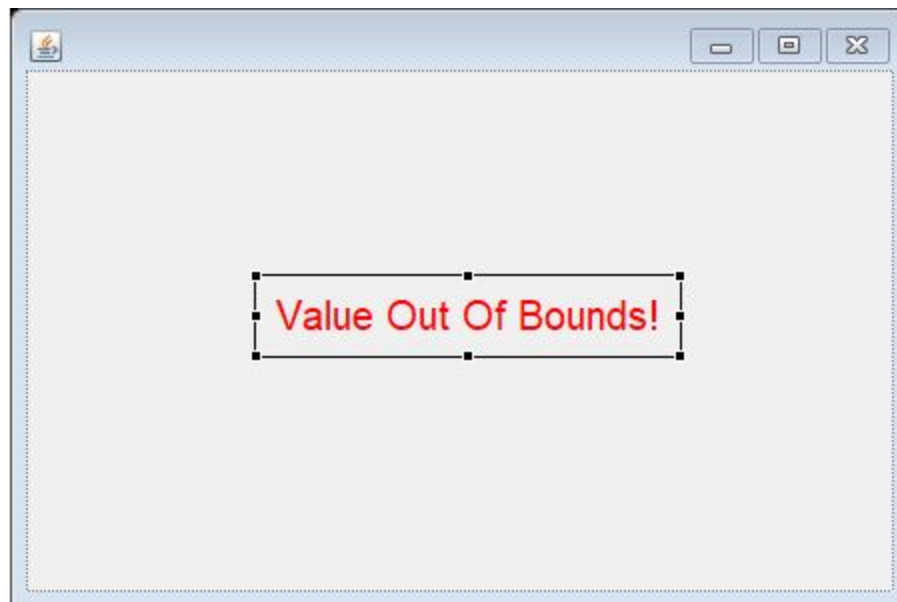
After deciding to import a text file or not, the user will be prompted to insert the maximum possible value of the grade as well as the minimum value, this is required for all group of grades. If a text file contains values outside the maximum and minimum possible values, the program will not include these values in the data nor when determining and analytics or distributions.

A name for the group of grades will also need to be entered (i.e. "Exam1," "Assignment_5," "Team Project 3"). This name will be followed by "Summary" if the Summary of the grades are printed (See *Printing a Summary*). If there are out of bounds values the user wishes not to be removed, make sure that the new name is different from the original text file name, so that the file saves the valid data in a different place.



A screenshot of a software window with a light blue title bar and standard Windows-style window controls (minimize, maximize, close). The main content area is light gray. At the top center, the text "Group Name" is displayed in a black, sans-serif font. Below this text is a white rectangular text input field with a thin gray border. In the center of the window, there is a button with the text "Print A Summary". In the bottom right corner, there is a button with the text "Next".

Once completed, clicking “Next” will take the user to the next screen, the Analytics Screen. If the text file includes values out of bounds, the program will display an error before continuing to the Analytics Screen (See **Error Messages**). The user will be able to view the values taken out, but by hitting “Next” again, the user will continue to the Analytics Screen with the in-bound values. In the next section, the user guide will explain how to navigate the Analytics Screen.



The Home Screen can be brought back up at any time by navigating over the “Home” button and clicking it.

Note: If a file is already open pressing the “Home” button will save that file first, but the user will have to reopen the text file to do continue with analytics.

All Functionality

The Home Screen

See “Getting Started” for details of the Home Screen.

The Analytics Screen

The Analytics Screen is where the user will be able to view the maximum value, the minimum value, the average value, and the median of the inputted grades in both the point values and the percentages. This will display automatically once in the screen with the given data. Also displayed is the amount of points the group of grades will be out of, as well as the minimum possible, which would have been inputted in the Home Screen. The name of the assignment will be displayed at all times at the top of the screen.

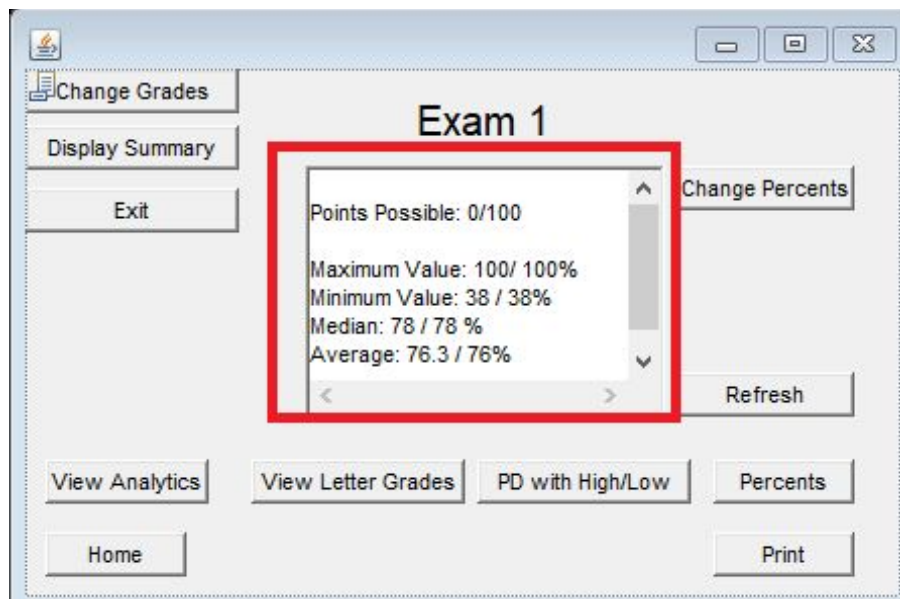
The screenshot shows a software window titled "Exam 1". On the left side, there is a vertical stack of buttons: "Change Grades", "Display Summary", and "Exit". In the center, a scrollable box displays the following statistics: "Points Possible: 0/100", "Maximum Value: 100/ 100%", "Minimum Value: 38 / 38%", "Median: 78 / 78 %", and "Average: 76.3 / 76%". To the right of this box is a "Change Percents" button and a "Refresh" button below it. At the bottom of the window, there is a row of four buttons: "View Analytics", "View Letter Grades", "PD with High/Low", and "Percents". Below this row are two more buttons: "Home" on the left and "Print" on the right. The window has standard minimize, maximize, and close buttons in the top right corner.

Underneath the displayed values will be the following buttons: “View Analytics,” “View Letter Grades,” “View Percentile Distribution,” and “View PD with highest/lowest possible scores.” Up at the top left corner will be: “Change Grades” and “Display Summary,” and “Exit.” Unless navigating back to the Home Screen, these buttons will be displayed from now on.

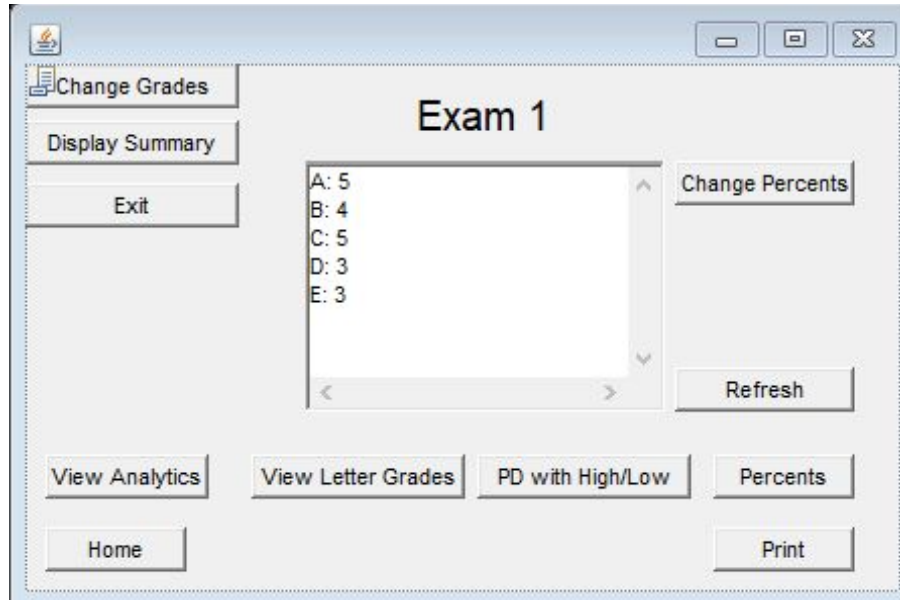
This screenshot is identical to the one above but includes red annotations. A red rectangular box highlights the vertical stack of buttons on the left: "Change Grades", "Display Summary", and "Exit". Another red rectangular box highlights the horizontal row of buttons at the bottom: "View Analytics", "View Letter Grades", "PD with High/Low", and "Percents". The "Next" button at the bottom right is also visible.

Viewing Letter Grades

To view the number of each letter grade, navigate to “View Letter Grades” at the bottom of the screen and click. If coming from the Analytics Screen, the maximum value, minimum value, and additional values once displayed will no longer be displayed. In the place of those values are letter grades and the number of each letter grade below.



The default cut off for each letter grade is A - 90%, B - 80%, C - 70%, and D - 60%. Anything below is assumed to be an E. By default, the grade is rounded up when determining these letter grades in the default program. Consequently, a grade of 89.7% would be viewed as an A. To the bottom left of these values will be a “Change Letter Grade Percents.” Once clicked on, the user will be able to put in values for the grades. These grades should be by percentage (not point values) and should not contain more than one decimal point integer. If a user inputs more than one decimal point integer, the program will round down to only be configured with one decimal point integer. To refresh the number of letter grades, hit “Refresh” to the right of the newly imputed values.



Note: The program will not assume any rounding once the user wishes to change any default value. To have the same effect of the default values, the user will need to enter: A - 89.5, B - 79.5, C - 69.5, D - 59.5.

Viewing Percentile Distributions

To view either of the Percentile Distributions, click “View Percentile Distribution” or “View PD with highest/lowest possible scores.” In both, the values indicating the range for each 10% of the data will be displayed in point values. The only difference between the two different distributions is that “View PD with highest/lowest possible scores” will include the highest possible and lowest possible values in the cut offs for each 10%, even if no grade had that score. This would be used to know which percentile a potential grade would fall no matter the other grades given.

Percentile Distribution

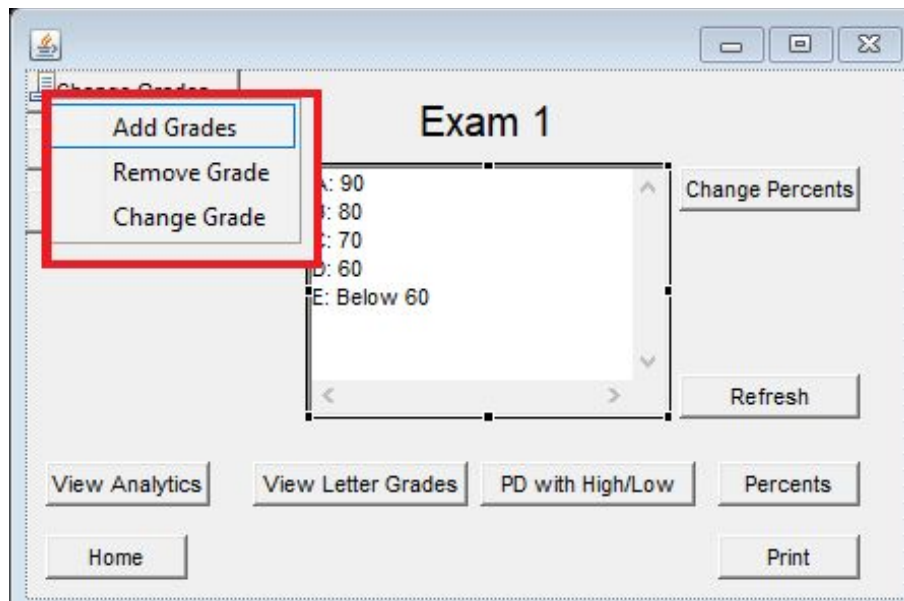
The screenshot shows a software window titled "Exam 1" with a light blue border. On the left side, there is a vertical menu with three buttons: "Change Grades" (with a document icon), "Display Summary", and "Exit". The main area of the window contains a list of letter grades and their corresponding percentile ranges: "A: 90", "B: 80", "C: 70", "D: 60", and "E: Below 60". To the right of this list are two buttons: "Change Percents" and "Refresh". At the bottom of the window, there are four buttons: "View Analytics", "View Letter Grades", "PD with High/Low", and "Percents". In the bottom right corner, there are two more buttons: "Home" and "Print".

View PD with Highest/Lowest Scores

This screenshot shows the same software window as above, but with the "PD with High/Low" button selected. The main area now displays a list of letter grades with their corresponding score ranges: "A: 90-100", "B: 80-89", "C: 70-79", "D: 60- 69", and "E: Below 60". The "Change Percents" and "Refresh" buttons remain on the right. The bottom navigation bar is identical to the previous screenshot, with buttons for "View Analytics", "View Letter Grades", "PD with High/Low", "Percents", "Home", and "Print".

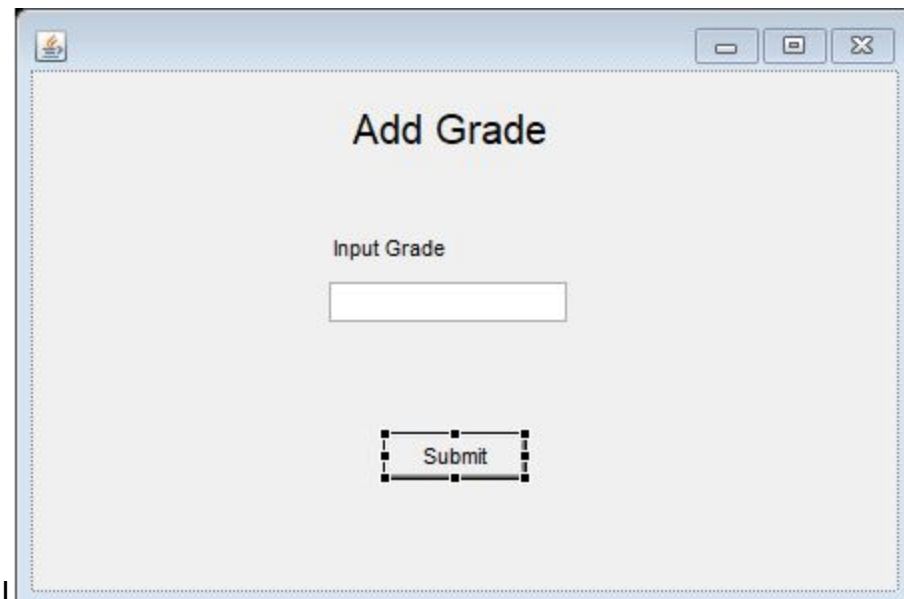
Adding, Removing, and Changing Individual Grades

Following exiting the Home Screen, at all times “Change Grades” will be at the top right corner. When this is clicked on, the user will be prompted to click either “Add Grade,” “Remove Grade,” or “Change Grade.”



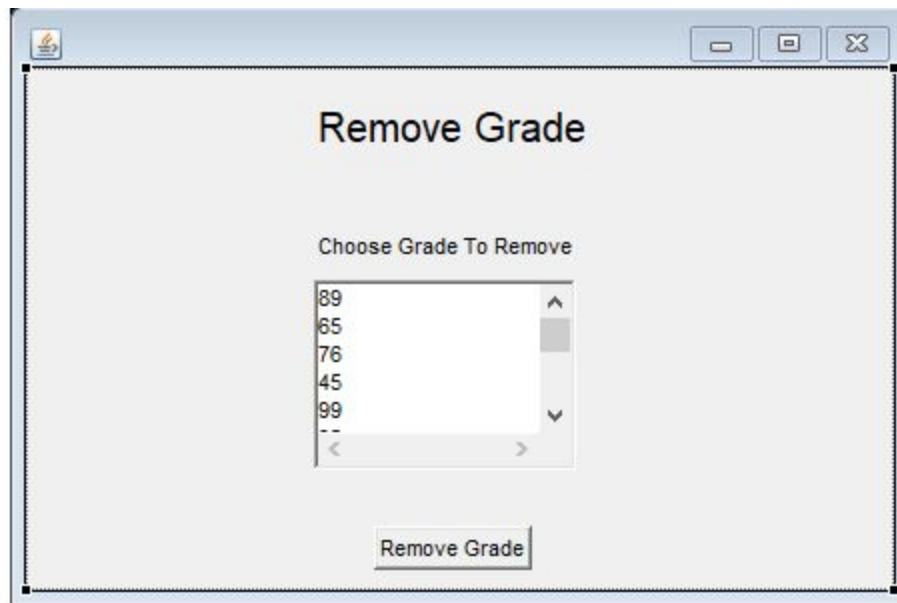
The screenshot shows a web application window titled "Exam 1". On the left, a sidebar menu is open, highlighting three options: "Add Grades", "Remove Grade", and "Change Grade". The main content area displays a list of letter grades: "A: 90", "B: 80", "C: 70", "D: 60", and "E: Below 60". To the right of this list are two buttons: "Change Percents" and "Refresh". At the bottom of the window, there are four buttons: "View Analytics", "View Letter Grades", "PD with High/Low", and "Percents". A "Home" button is located at the bottom left, and a "Print" button is at the bottom right.

To add a grade, click “Add Grade.” The user will then be able to input another grade into the data. This should be inputted in terms of the point value, and should be within the range of the lowest possible score and the highest possible score. If not, an error will be displayed (See **Error Messages**).

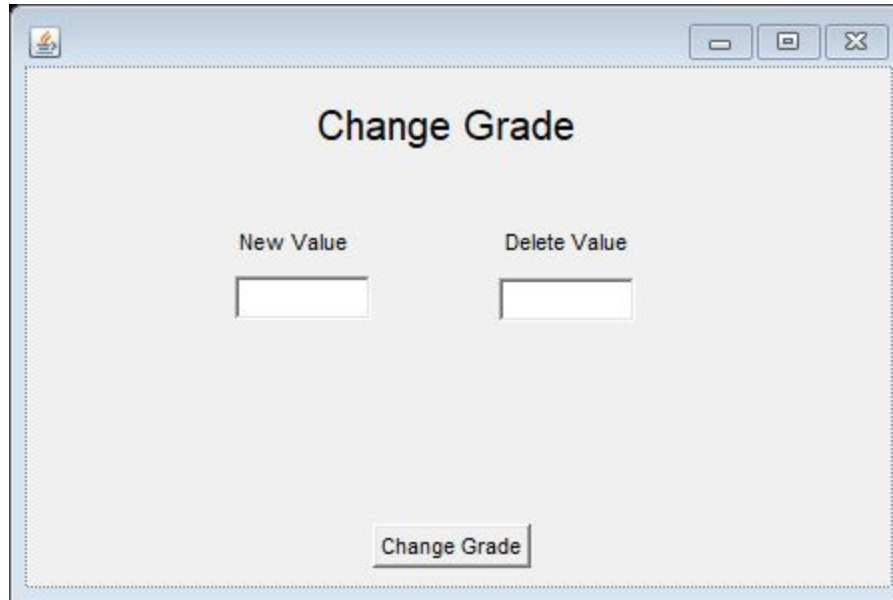


The screenshot shows a web application window titled "Add Grade". It features a single text input field labeled "Input Grade". Below the input field is a "Submit" button.

To remove a grade, click “Remove Grade.” The user will then need to input a grade value into the data for the program to search for and delete. This should be an exact value for the grade to be removed. If it is not, an error will be displayed saying that the program cannot remove the value (See **Error Messages**). If there is more than one grade with the same value, it’s important to note only 1 will be removed. The user can delete more by just clicking “Remove Grade” again and inputting the same value.



To change a grade, click “Change Grade.” The user will be prompted to insert 2 values labeled “New Value” and “Delete Value.” The value that will replace the old one will be inserted into the Box next to “New Value” and the old value will be placed in the box next to “Delete Value.” Like in removing a grade, the “Delete Value” must exist, and the value must be exact. If it is not, an error will be displayed saying that the program cannot remove the value (See **Error Messages**).

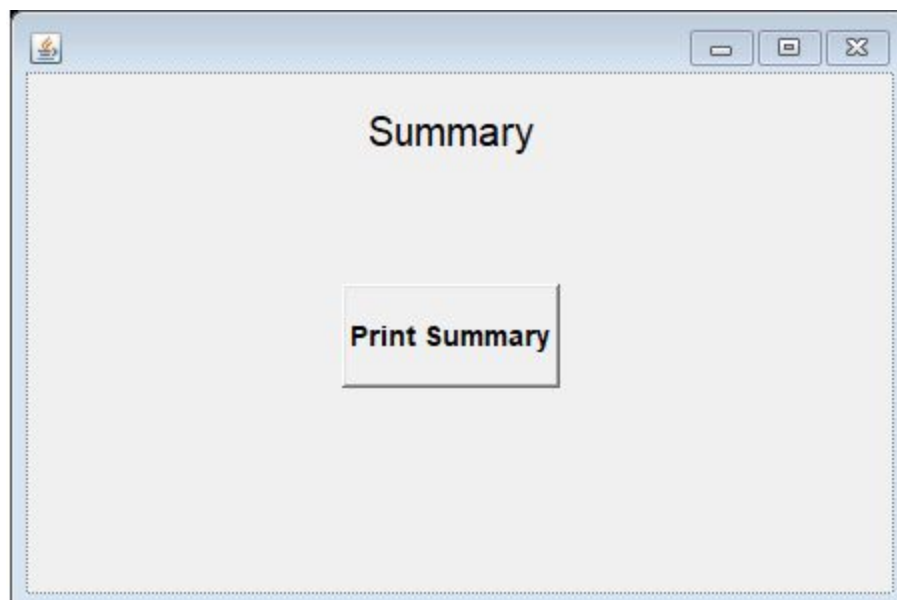
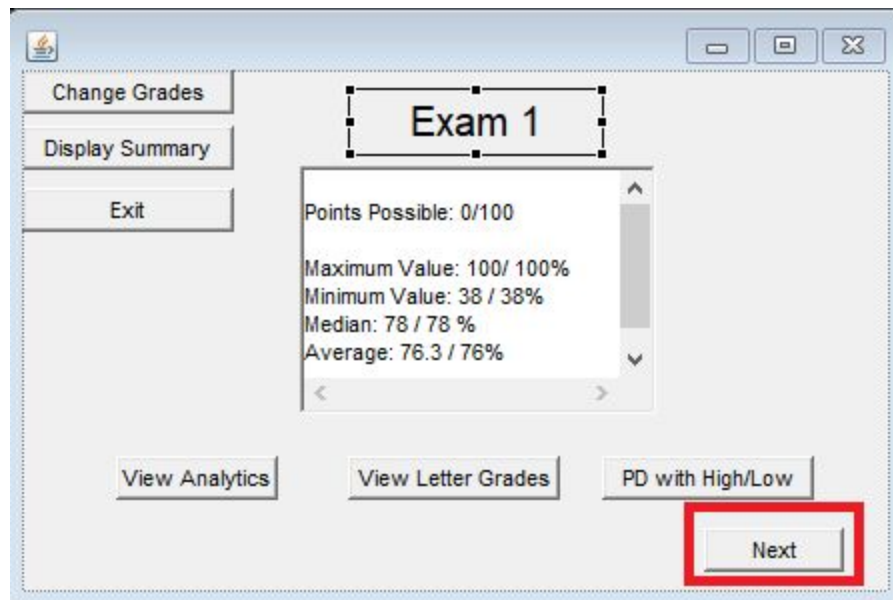
A screenshot of a 'Change Grade' dialog box. The dialog has a title bar with a small icon on the left and standard minimize, maximize, and close buttons on the right. The main area is light gray and contains the title 'Change Grade' at the top. Below the title, there are two labels: 'New Value' and 'Delete Value'. Each label is positioned above a white rectangular input field. At the bottom center of the dialog, there is a button labeled 'Change Grade'.

Upon exit of the GradeAnalitica™ or clicking of the Home Screen, these grades will be saved in the imported text file, or if no text file was imported, a new text file with all the data. Data will **not** include any values outside the range of possible values, whether the value was just attempted using “Add Grade” or if in the original file.

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100
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89
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90
87
```

Printing a Summary

At anytime after the Home Screen, the button “Display Summary” will be displayed next to “Change Grades.” In order to output a text file with a summary of all the analytics, the user can click this button. This will output a text file with the name of the file followed by “Summary”. Inside the file, all analytics, grade distribution and percentile distributions will be reported. The analytics will be a screenshot of the data at that particular moment. If the user changes the values, the “Display Summary” will need to be clicked again to update the file.



Points Possible: 0/100

Maximum Value: 100/100%

Minimum Value: 38/38%

Median: 78%

Average: 76%

A:5

B:4

C:5

D:3

E:3

A: 90-100

B: 80-89

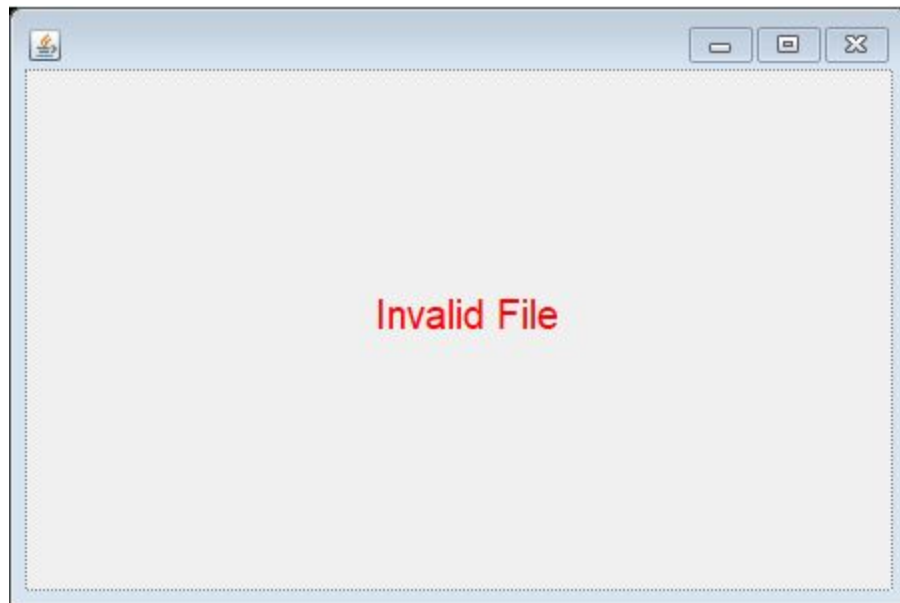
C: 70-79

D: 60-69

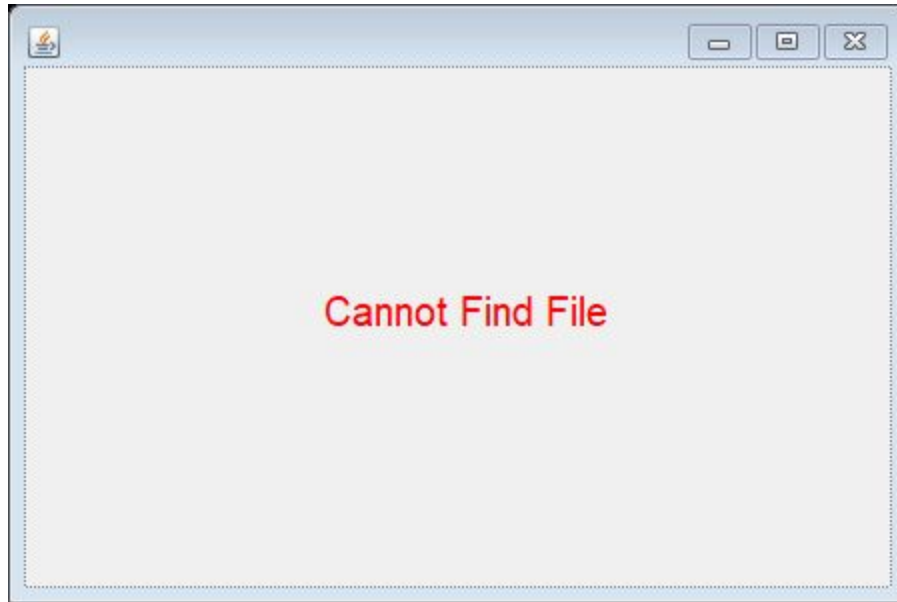
E: 60 -

Error Messages

There are certain limitations within the program that are to be followed in order to allow the functionality to properly work. For example, when first inputting the data by importing it through an existing file, the file type must be *.txt* in order for the program to be able to extract the data. An attempt to use an improper file type will result in the error shown below.

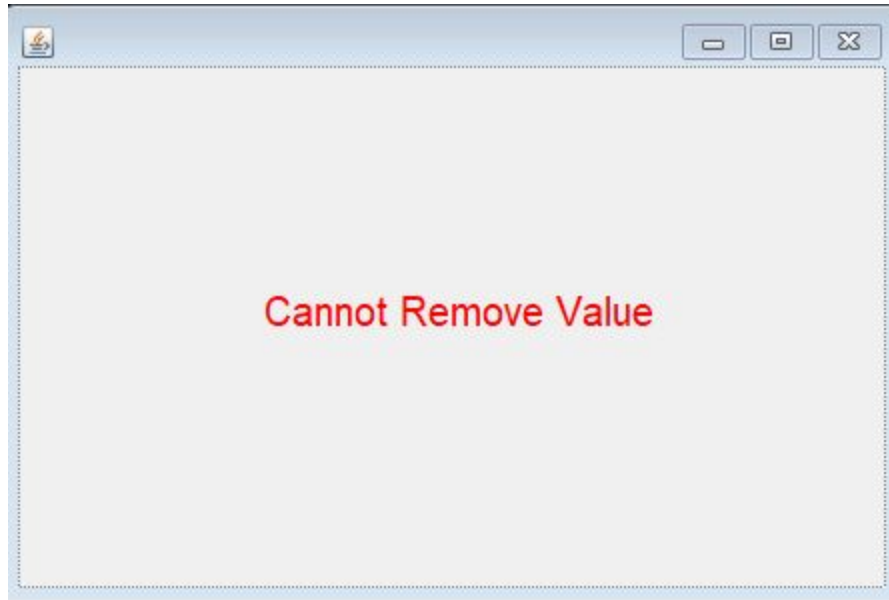


In addition, even when selecting through a list of proper *.txt* files; the correct name of the file that is being searched is needed. A simple typo will not allow the program to allocate the correct file resulting in the error shown below.



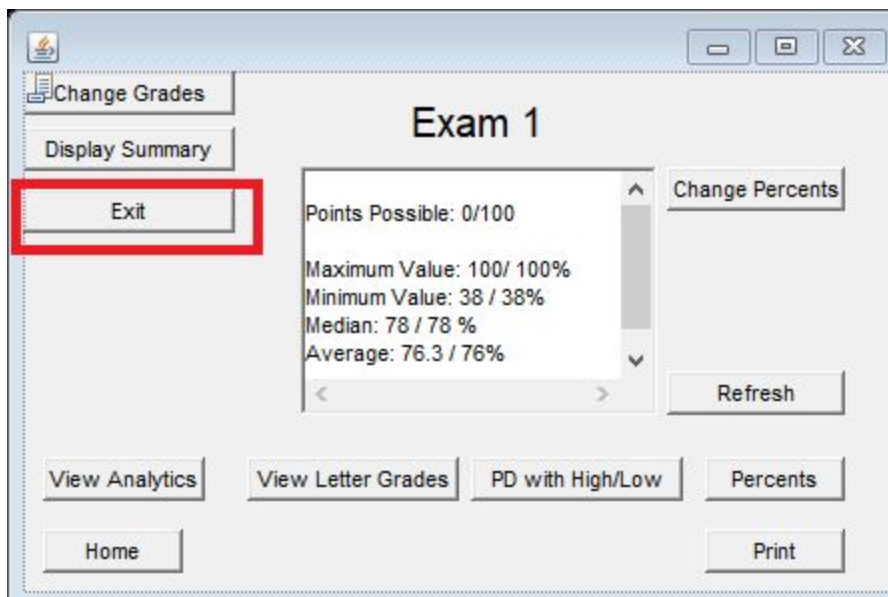
When importing the file, it's important to note that as said in the section **Getting Started**, if numbers in the .txt file are not within range, the program will display an error message, letting the user know which values will be effectively removed when continuing on to analytics. This is not cause for concern, but to be used as a tool to know which values are invalid.

Finally, a functionality of GradeAnalitica™ is to be able to remove a grade from the given data. However, if the grade that is requested to be removed can not be found, then an error shall display, as shown below, indicating that the particular value can not be removed.



Quitting The Program

In order to exit the program, the Home Screen must be present. Thus, at the top left under the “Display Summary” button; an option can be clicked to close and exit the program.



Changes within the program are permanent as they are saved back to the file from which the original data was located. Therefore, a second window is prompt asking for confirmation on leaving the program. To return to the Home Screen select “No,” otherwise click “Yes” to continue exiting the program.

