

## About

This program is used to calculate your GPA (Grade Point Average) based on your micro-marks. It is designed to be easy to use, versatile, and reliable. It has save feature which means through out the year as you get new assignments and grades, you can keep updating your marks with out having to re-enter everything. It uses a tree structure to calculate you grade, each tree branch represents a category of marks or sub mark, each leaf represents a micro-grade (or an Item).

**This program is designed primarily for Western University Students** (Other grading system will be implemented if there is enough demand)

- **IMPORTANT NOTE: Do not use spaces or special characters for Course, Category, or Item names as it will corrupt the save file when you save it, the only special character that is allowed is the underscore "\_" and dash "-".**

## 1. How To Add A Course

Description:

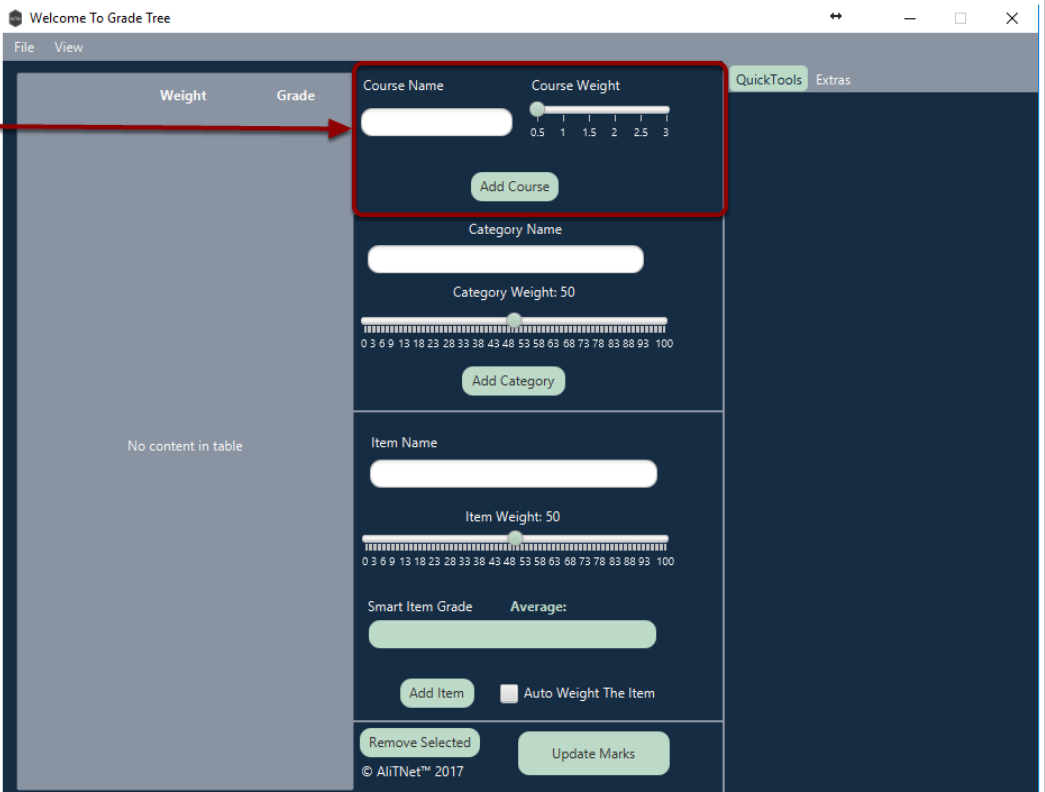
When you add a course, you are adding a new root to the grade tree, a course does not have a "parent" node.

Later on when we discuss adding categories and items, you can see that they must have parent node, either the parent node can be another category or item, as well as a course.

- **IMPORTANT NOTE: Do not use spaces or special characters for Course, Category, or Item names as it will corrupt the save file when you save it, the only special character that is allowed is the underscore "\_" and dash "-".**

## 1.1 Entering Course Name

Step 1: Enter the course name in the course name textbox



The screenshot shows the 'Welcome To Grade Tree' application window. On the left is a table with columns 'Weight' and 'Grade', currently displaying 'No content in table'. On the right is a control panel with the following sections:

- Course Entry:** A text input for 'Course Name' (highlighted by a red box and arrow), a 'Course Weight' slider (0.5 to 3), and an 'Add Course' button.
- Category Entry:** A text input for 'Category Name', a 'Category Weight: 50' slider (0 to 100), and an 'Add Category' button.
- Item Entry:** A text input for 'Item Name', an 'Item Weight: 50' slider (0 to 100), a 'Smart Item Grade' input, an 'Average' input, an 'Add Item' button, and an 'Auto Weight The Item' checkbox.
- Actions:** 'Remove Selected' and 'Update Marks' buttons.

At the bottom left of the control panel, it says '© AliTNet™ 2017'.

1.2 Entering Course Weight

Move The slider to the course's weight (normal its 0.5 but some courses go up to 1.0-2.5 if they are full year courses)

FileView

Weight	Grade
No content in table	

Course Name

APPMATH 2270A

Course Weight

0.511.522.53

Add Course

Category Name

Category Weight: 50

03691318232833384348535863687378838893100

Add Category

Item Name

Item Weight: 50

03691318232833384348535863687378838893100

Smart Item Grade

Average:

Add Item

☐ Auto Weight The Item

Remove Selected

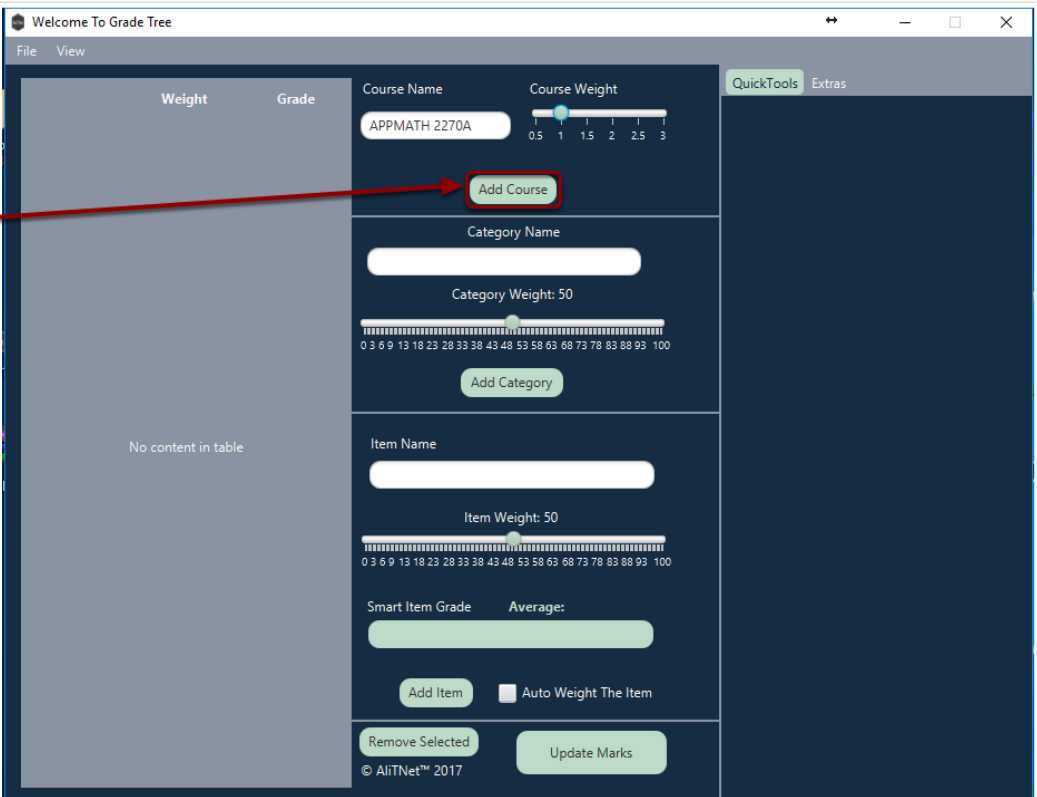
Update Marks

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QuickToolsExtras

## 1.3 Add the course

Click the "Add Course" button to add the course



Weight Grade

Course Name APPMATH 2270A Course Weight 0.5 1 1.5 2 2.5 3

Add Course

Category Name

Category Weight: 50 0 3 6 9 13 18 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100

Add Category

Item Name

Item Weight: 50 0 3 6 9 13 18 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100

Smart Item Grade Average:

Add Item ☐ Auto Weight The Item

Remove Selected Update Marks

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QuickTools Extras

1.4 Result

Welcome To Grade Tree

FileView

	Weight	Grade
APPMATH 2270A	1.0	0.0

Course Name

APPMATH 2270A

Course Weight

0.511.522.53

Add Course

Category Name

Category Weight: 50

03691318232833384348535863687378838893100

Add Category

Item Name

Item Weight: 50

03691318232833384348535863687378838893100

Smart Item Grade

Average:

Add Item

☐ Auto Weight The Item

Remove Selected

Update Marks

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QuickTools

Extras

## 2. How to Add A Category

- Categories are things like assignments, quizzes and labs where they have a total weight equal to a fraction of a course.
- Each category can have an arbitrary number of items, for example you may be a lab category in the course with 5 labs, and an assignment category in the same course with 12 assignments.
- **Categories can be nested which means you can have a sub-category of a category for example, you can have a category named "assignments", and this category can have sub categories for example "oral\_assignments" and "written\_assignments". In this document the words "Parent Category" and "Parent Item" are used. They mean, respectively, the category and item which the subject inherits from. For example, the parent category of "oral\_assignments" and "written\_assignment" is the category "assignment".**
- **IMPORTANT NOTE: Do not use spaces or special characters for Course, Category, or Item names as it will corrupt the save file when you save it, the only special character that is allowed is the underscore "\_" and dash "-".**

## 2.1 Category Name

Give the category a name (eg. Labs, Assignments, Quizzes) by entering it in the category name textbox.

	Weight	Grade
APPMATH 2270A	1.0	0.0

Course Name: APPMATH 2270A  
Course Weight: 0.5 1 1.5 2 2.5 3  
Add Course

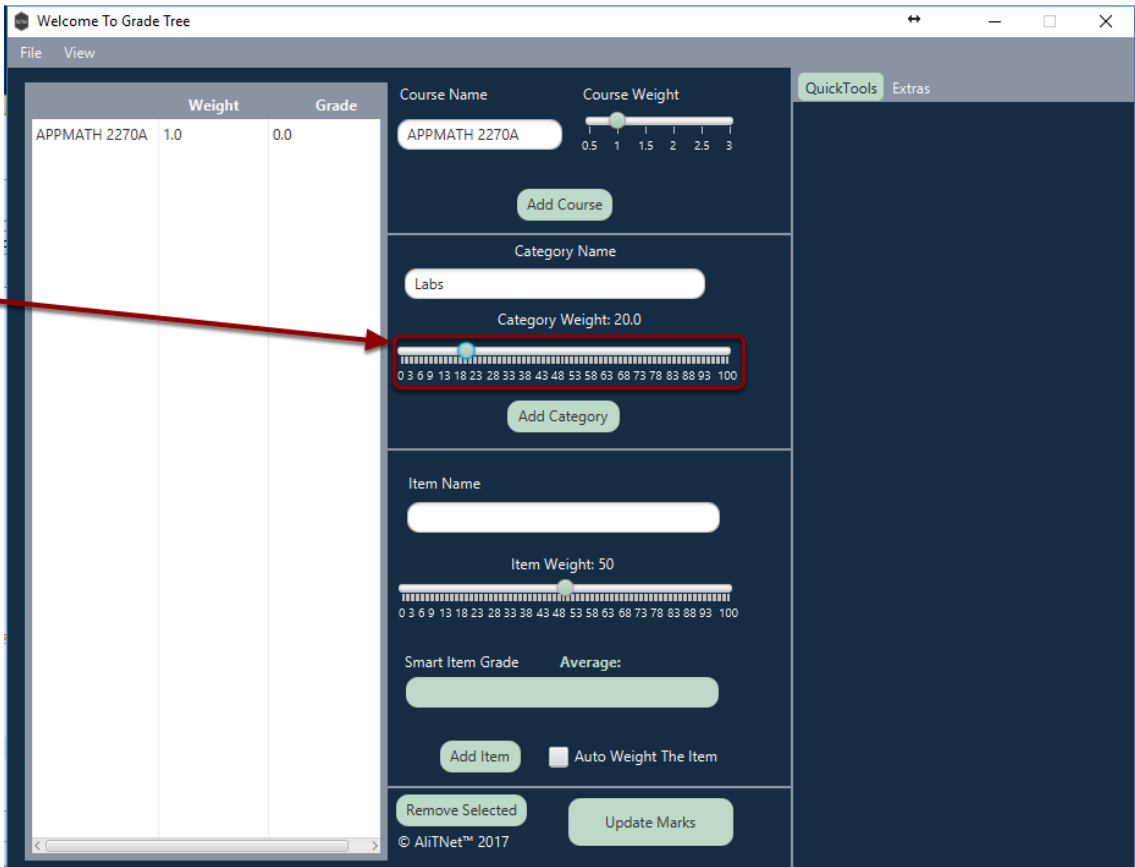
Category Name: Labs  
Category Weight: 50  
0 3 6 9 13 18 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100  
Add Category

Item Name:  
Item Weight: 50  
0 3 6 9 13 18 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100

Smart Item Grade: Average:  
Add Item  
Auto Weight The Item  
Remove Selected  
Update Marks  
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## 2.2 Category Weight

Give the category a weight in percentage by moving the slider (eg. if you move the slider to 20 it means that this category is worth 20% of the course or its parent category)



The screenshot displays the 'Welcome To Grade Tree' application window. On the left, a table lists courses with columns for 'Weight' and 'Grade'. The first entry is 'APPMATH 2270A' with a weight of 1.0 and a grade of 0.0. On the right, the 'Course Name' is 'APPMATH 2270A' and the 'Course Weight' is shown as a slider ranging from 0.5 to 3. Below this, the 'Category Name' is 'Labs' and the 'Category Weight' is 20.0. A red box highlights the 'Category Weight' slider, which is set to 20.0. The slider has a scale from 0 to 100 in increments of 3. Below the slider, there is an 'Add Category' button. Further down, the 'Item Name' field is empty, and the 'Item Weight' is 50.0. The 'Smart Item Grade' is 'Average:'. At the bottom, there are buttons for 'Add Item', 'Remove Selected', and 'Update Marks'. The copyright notice '© AliTNet™ 2017' is visible at the bottom left.

	Weight	Grade
APPMATH 2270A	1.0	0.0

Course Name: APPMATH 2270A  
Course Weight: 0.5 1 1.5 2 2.5 3  
Add Course

Category Name: Labs  
Category Weight: 20.0  
0 3 6 9 13 18 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100  
Add Category

Item Name:   
Item Weight: 50  
0 3 6 9 13 18 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100

Smart Item Grade: Average:   
Add Item ☐ Auto Weight The Item

Remove Selected   
Update Marks

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## 2.3 Adding the category

**Note:** This is an important step, please follow carefully or desired results will not ensue.

The screenshot shows the 'Welcome To Grade Tree' application window. On the left, a table lists courses with columns for 'Course Name', 'Weight', and 'Grade'. The first row, 'APPMATH 2270A', is highlighted in blue. A red box is drawn around this row. A red arrow points from a callout box to this row. The callout box contains the text: 'First: Select a parent course or category'. Another red arrow points from a second callout box to the 'Add Category' button in the right-hand panel. This callout box contains the text: 'Second: Click the Add Category Button'. The right-hand panel contains several input fields and buttons: 'Course Name' (with 'APPMATH 2270A' entered), 'Course Weight' (a slider set to 1.0), 'Add Course' button, 'Category Name' (with 'Labs' entered), 'Category Weight: 20.0' (a slider), 'Add Category' button (highlighted with a red box), 'Item Name' (empty), 'Item Weight: 50' (a slider), 'Smart Item Grade' (empty), 'Average:' (empty), 'Add Item' button, 'Auto Weight The Item' checkbox (unchecked), 'Remove Selected' button, and 'Update Marks' button. The bottom of the window shows '© AliTNet™ 2017'.

2.4.1 How To Expand The Course

Click the Arrow to expand

Welcome To Grade Tree

FileView

	Weight	Grade
▶ APPMATH 2...	1.0	0.0

Course Name

APPMATH 2270A

Course Weight

0.511.522.53

Add Course

Category Name

Labs

Category Weight: 20.0

03691318232833384348535863687378838893100

Add Category

Item Name

Item Weight: 50

03691318232833384348535863687378838893100

Smart Item Grade

Average:

Add Item

☐ Auto Weight The Item

Remove Selected

Update Marks

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QuickTools

Extras

2.4.2 Result

Welcome To Grade Tree

FileView

	Weight	Grade
▼ APPMATH 2...	1.0	0.0
Labs	20.0	0.0

Course Name

APPMATH 2270A

Course Weight

0.511.522.53

Add Course

Category Name

Labs

Category Weight: 20.0

03691318232833384348535863687378838893100

Add Category

Item Name

Item Weight: 50

03691318232833384348535863687378838893100

Smart Item Grade

Average:

Add Item

☐ Auto Weight The Item

Remove Selected

Update Marks

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QuickTools

Extras

## 3 How to Add an Item (Grade)

- Items are your individual assignment/lab/quiz/midterm/final grades.
- Each category can have an arbitrary number of sub items, for example you may be a lab category in the course with 5 labs, and an assignment category in the same course with 12 assignments.
- **Items can be nested which means you can have a sub-items of an Item for example, you just wrote a quiz, lets call it "quiz1". This quiz had two parts, a multiple choice and a written, then you can have a sub-item for that quiz named "MC" and another one for "Written".**
- In this document the words "Parent Item" is used. It means the item which the subject inherits from. For example, the parent category of "MC" and "Written" is the category "quiz1".
- **IMPORTANT NOTE:** Do not use spaces or special characters for Course, Category, or Item names as it will corrupt the save file when you save it, the only special character that is allowed is the underscore "\_" and dash "-".

### 3.1 Item Name

Enter the Item/grade name here for example (quiz1)

The screenshot shows the 'Welcome To Grade Tree' application window. On the left is a table with columns 'Weight' and 'Grade'. The table contains two rows: 'APPMATH 2270A' with a weight of 1.0 and grade of 0.0, and 'Labs' with a weight of 20.0 and grade of 0.0. On the right is a control panel with sections for 'Course Name' (APPMATH 2270A), 'Course Weight' (slider from 0.5 to 3), 'Category Name' (Labs), 'Category Weight' (20.0), 'Item Name' (Labs), and 'Item Weight' (50). The 'Item Name' field is highlighted with a red box and a red arrow points to it from a text box on the left. At the bottom of the control panel are buttons for 'Add Course', 'Add Category', 'Add Item', 'Remove Selected', and 'Update Marks'. The footer shows '© AliTNet™ 2017'.

	Weight	Grade
▼ APPMATH 2270A	1.0	0.0
Labs	20.0	0.0

Course Name: APPMATH 2270A  
Course Weight: 0.5 1 1.5 2 2.5 3  
Add Course

Category Name: Labs  
Category Weight: 20.0  
Add Category

Item Name: Labs  
Item Weight: 50  
Add Item

Smart Item Grade: Average:   
Remove Selected

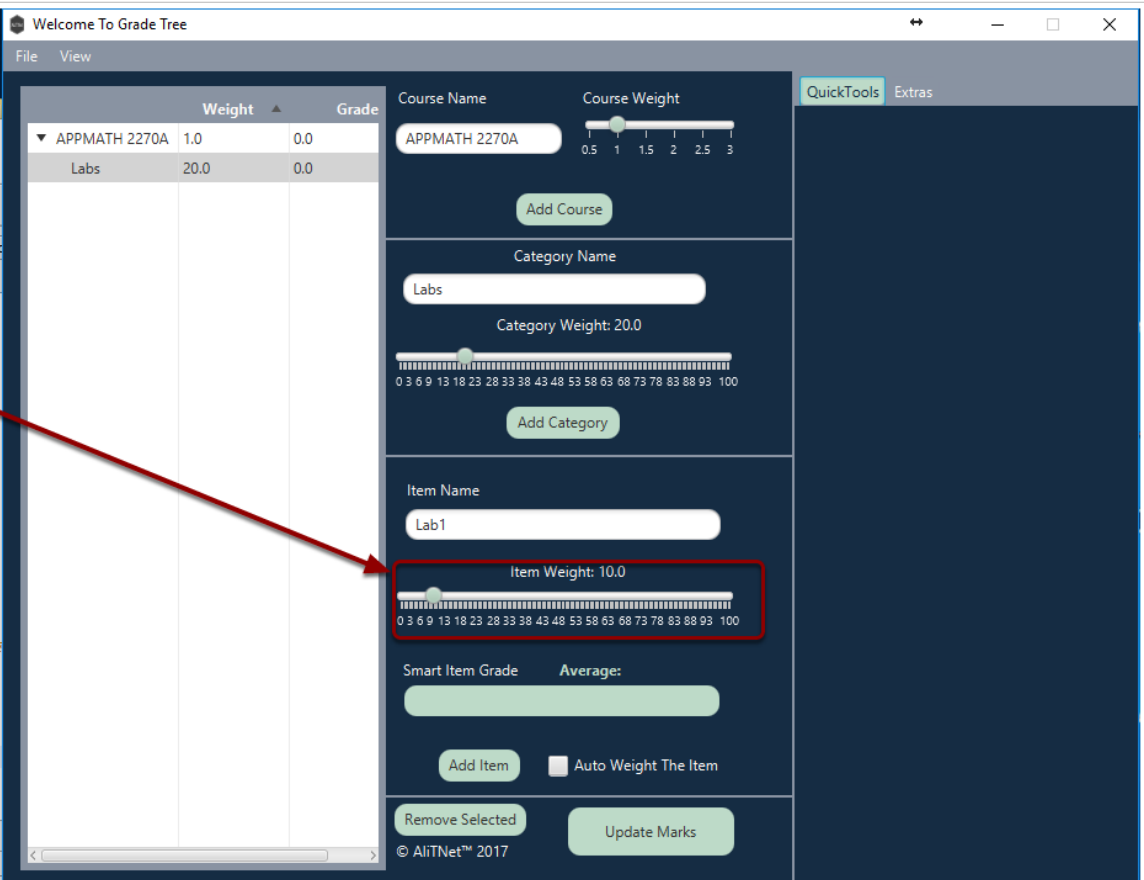
Auto Weight The Item ☐

Update Marks

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### 3.2 Item Weight

Drag the slider to set the item weight in percentage (eg. item weight set to 10 means that this item is worth 10% of its parent category/item/course)



The screenshot displays the 'Welcome To Grade Tree' application window. On the left, a table lists items with their weights and grades. The 'Course Name' field is set to 'APPMATH 2270A', and the 'Course Weight' slider is at 1.0. The 'Category Name' is 'Labs', and the 'Category Weight' is 20.0. The 'Item Name' is 'Lab1', and the 'Item Weight' slider is set to 10.0. The 'Smart Item Grade' field is empty, and the 'Average' field is also empty. The 'Add Item' button is visible, along with the 'Auto Weight The Item' checkbox. The 'Remove Selected' and 'Update Marks' buttons are at the bottom. The 'QuickTools' and 'Extras' tabs are on the right.

	Weight	Grade
▼ APPMATH 2270A	1.0	0.0
Labs	20.0	0.0

Course Name: APPMATH 2270A  
Course Weight: 1.0

Category Name: Labs  
Category Weight: 20.0

Item Name: Lab1  
Item Weight: 10.0

Smart Item Grade:   
Average:

Add Item ☐ Auto Weight The Item

Remove Selected Update Marks

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### 3.3.1 How to enter basic grade in the Smart Item Grade text-box

The screenshot displays the 'Welcome To Grade Tree' application window. On the left, a table lists courses and their weights. A red arrow points from a callout box to the 'Smart Item Grade' text box in the 'Item' section.

**Table:**

	Weight	Grade
▼ APPMATH 2270A	1.0	0.0
Labs	20.0	0.0

**Course Name:** APPMATH 2270A  
**Course Weight:** 1.0 (slider)

**Category Name:** Labs  
**Category Weight:** 20.0 (slider)

**Item Name:** Lab1  
**Item Weight:** 10.0 (slider)

**Smart Item Grade:** 20 (Average: 20.0)

**Buttons:** Add Course, Add Category, Add Item, Remove Selected, Update Marks, Auto Weight The Item

**Callout Box:** Enter a numerical value in the textbox

### 3.3.2 How to Enter unbiased (even) grades in the Smart Item Grade

- Note: unbiased average means that all the items in the text-box have the same weight, or the weight is evenly distributed among the items.
- **This is an easy way to get your sub total of an assignment or an exam which has multiple parts or sub parts. For example, you wrote a quiz and it had 4 equal parts, you got 20%,30%,40%,50% in each of those parts respectively. This is how you would enter it:**

**Enter a numerical values as percentages seperated by "+" signs. This will give you an evenly weighted average grade**

**Preview of the calculated average based on your input. Notice the average of the entered values {20,30,40,50} is 35**

The screenshot shows the 'Welcome To Grade Tree' window. On the left, a table lists courses and categories with their weights and grades. On the right, the 'Course Name' is 'APPMATH 2270A' with a weight of 1.0. Below it, 'Category Name' is 'Labs' with a weight of 20.0. The 'Item Name' is 'Lab1' with a weight of 10.0. The 'Smart Item Grade' input field contains '20+30+40+50', and the 'Average' output field shows '35.0'. The interface also includes buttons for 'Add Course', 'Add Category', 'Add Item', 'Remove Selected', and 'Update Marks'.



### 3.3.3 How to Enter Bias Average (un-even)

- Note: a bias average means that each individual item in the text-box has different weights defined by the number after the "\*" signs.
- This is an easy way to enter your marks but give each one a weight. Lets say you wrote another quiz in geography, it had a multiple choice part but it was worth 30% and you got 20% in it, (you would enter  $20*0.3$ ) . It had a short answer part it and you got 40% in it, but it was worth only 20% of the quiz (you would enter  $40*0.2$ ). Finally, did quit well on the long answer part and managed to get an 80, and lucky for you, it was worth 40% of the quiz (so you would enter  $80*0.4$ ). Now you are not quit sure where the rest of the quiz mark went as there is still 10% left, but fear not as the Smart Item Grade will re-adjust the weighting to ignore the missing 10%. This is how you would enter your quiz mark's parts ( $20*0.3+40*0.2+80*0.4$ ):

The screenshot shows the Grade Tree V2.0 interface. On the left, a table lists courses and their weights:

	Weight	Grade
APPMATH 2270A	1.0	0.0
Labs	20.0	0.0

On the right, the 'QuickTools' tab is active, showing details for 'APPMATH 2270A'. The 'Category Name' is 'Labs' with a 'Category Weight' of 20.0. The 'Item Name' is 'Lab1' with an 'Item Weight' of 10.0. The 'Smart Item Grade' section shows the calculation:  $20*0.3+40*0.2+80*0.4$ , resulting in an 'Average: 51.111'.

Two callout boxes provide instructions:

- Enter a numerical values as percentages seperated by "+" signs and the item weight as decimals after "\*". This will give you a bias average grade** (points to the formula input field).
- Preview of the calculated average based on your input.** (points to the 'Average: 51.111' result).

### 3.3.4 How to enter grades as fractions (un-bias average)

- Who has time to calculate their grades from fractions and enter them here, I don't, so here is how you can enter your grades as fractions here and save some number crunching.
- Let's say you wrote another quiz, this time in Calculus. But you are not too good at math and you can't convert proper fractions to decimals in your head. Lo and Behold Grade tree's Smart Item Grade is here to save your butt, just enter your marks as you see them. So let's say you got 20/30 in the first part of the quiz, 35/40 in the second part, and 40/50 in the last part. Just enter them like that separated by plus signs ("+" ) and the magic box will tell you the average.

Enter a numerical values as fractions seperated by "+" signs. This will give you an unbias average grade

Preview of the calculated average based on your input.

Smart Item Grade: **Average: 78.056**  
20/30+35/40+40/50

The screenshot shows the 'Welcome To Grade Tree' application window. On the left is a table with columns 'Weight' and 'Grade'. The table contains two rows: 'APPMATH 2270A' with a weight of 1.0 and grade of 0.0, and 'Labs' with a weight of 20.0 and grade of 0.0. On the right is a form with fields for 'Course Name' (APPMATH 2270A), 'Course Weight' (1.0), 'Category Name' (Labs), 'Category Weight' (20.0), 'Item Name' (Lab1), and 'Item Weight' (10.0). Below these fields is the 'Smart Item Grade' section, which shows the input '20/30+35/40+40/50' and the calculated average '78.056'. A red arrow points from the first text box to the 'Smart Item Grade' input field, and a green arrow points from the second text box to the 'Average: 78.056' result.

### 3.3.5 Mix and Match!

- You can mix any previous steps together to get an average, this is the "smart" part of the Smart Item Grade, it knows how to handle your crazy use cases.

The screenshot shows the 'Welcome To Grade Tree' application window. The interface includes a table for 'Weight' and 'Grade' (currently empty), and a right-hand panel with input fields for 'Course Name', 'Course Weight', 'Category Name', 'Category Weight', 'Item Name', and 'Item Weight'. Each weight field has a corresponding slider. At the bottom of the right panel, the 'Smart Item Grade' is calculated as 'Average: 2.222' with the formula  $15/30*0.2+30/45*0.3+45*0.2+12/30*0.2$  displayed below it. A green arrow points from a text box on the left to the formula, and a red box highlights the formula itself.

Enter a numerical values as fractions seperated by "+" signs. This will give you an unbias average grade

Preview of the calculated average based on your input.

Smart Item Grade Average: 2.222

$15/30*0.2+30/45*0.3+45*0.2+12/30*0.2$

### 3.4 Adding Item

**Note:** This is an important step, please follow carefully or desired results will not ensue.

The screenshot shows the 'Welcome To Grade Tree' application window. On the left, a tree view displays a hierarchy: 'APPMATH ...' (Weight: 1.0, Grade: 0.0) and 'Labs' (Weight: 20.0, Grade: 52.22). A red box highlights the 'Labs' entry, with a callout box stating: 'First: select the parent category/item/course by clicking on it in the tree view window'. On the right, the 'Course Name' field is set to 'APPMATH 2270A'. Below it, the 'Category Name' is 'Labs' and 'Category Weight' is 20.0. The 'Item Name' is 'Lab1' and 'Item Weight' is 50. The 'Smart Item Grade' calculation is shown as  $15/30 \cdot 0.2 + 30/45 \cdot 0.3 + 45 \cdot 0.2 + 12/30 \cdot 0.2$ , resulting in an 'Average: 52.222'. A red box highlights the 'Add Item' button, with a callout box stating: 'Second: Click the Add Item Button'. Other buttons include 'Add Course', 'Add Category', 'Remove Selected', and 'Update Marks'. The bottom of the window shows '© AliTNet™ 2017'.

### 3.5.1 How to Expand Category/Item

Click the Arrow to expand

The screenshot shows the 'Welcome To Grade Tree' application window. On the left, a table lists categories and items. A red box highlights a small blue arrow icon next to the 'Labs' item, with a callout box pointing to it that says 'Click the Arrow to expand'. The table has columns for 'Weight' and 'Grade'.

	Weight	Grade
APP MATH ...	1.0	0.0
Labs	20.0	52.22

The right side of the interface shows a detailed view for the selected 'Labs' category. It includes fields for 'Course Name' (APP MATH 2270A), 'Course Weight' (slider from 0.5 to 3), 'Category Name' (Labs), 'Category Weight: 20.0' (slider from 0 to 100), 'Item Name' (Lab1), 'Item Weight: 50' (slider from 0 to 100), 'Smart Item Grade' (Average: 52.222), and a formula:  $15/30 \cdot 0.2 + 30/45 \cdot 0.3 + 45 \cdot 0.2 + 12/30 \cdot 0.2$ . There are buttons for 'Add Course', 'Add Category', 'Add Item', 'Remove Selected', and 'Update Marks'. A checkbox for 'Auto Weight The Item' is also present.

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3.5.2 Result

Welcome To Grade Tree

FileView

	Weight	Grade
▼ APPMATH ...	1.0	0.0
▼ Labs	20.0	52.22
Lab1	50.0	52.222

Course Name

APPMATH 2270A

Course Weight

0.511.522.53

Add Course

Category Name

Labs

Category Weight: 20.0

03691318232833384348535863687378838893100

Add Category

Item Name

Lab1

Item Weight: 50

03691318232833384348535863687378838893100

Smart Item Grade

Average: 52.222

15/30\*0.2+30/45\*0.3+45\*0.2+12/30\*0.2

Add Item

☐ Auto Weight The Item

Remove Selected

Update Marks

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QuickTools

Extras

## 4 How To Save your grades (no put intended)

1. Click File

1. Click Save As

Welcome To Grade Tree

	Weight	Grade
APPMATH ...	1.0	0.0
▼ Labs	20.0	52.22
Lab1	50.0	52.222

Course Name: APPMATH 2270A  
Course Weight: 0.5 1 1.5 2 2.5 3  
Add Course

Category Name: Labs  
Category Weight: 20.0  
0 3 6 9 13 16 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100  
Add Category

Item Name: Lab1  
Item Weight: 50  
0 3 6 9 13 16 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100

Smart Item Grade Average: 52.222  
 $15/30 \cdot 0.2 + 30/45 \cdot 0.3 + 45 \cdot 0.2 + 12/30 \cdot 0.2$   
Add Item ☐ Auto Weight The Item

Remove Selected Update Marks  
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File View

Open  
Save  
Save As...  
Close

Weight Grade

APPMATH ... 1.0 0.0

Labs 20.0 52.22

Lab1 50.0 52.222

Course Name: APPMATH 2270A  
Course Weight: 0.5 1 1.5 2 2.5 3  
Add Course

Category Name: Labs  
Category Weight: 20.0  
0 3 6 9 13 16 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100  
Add Category

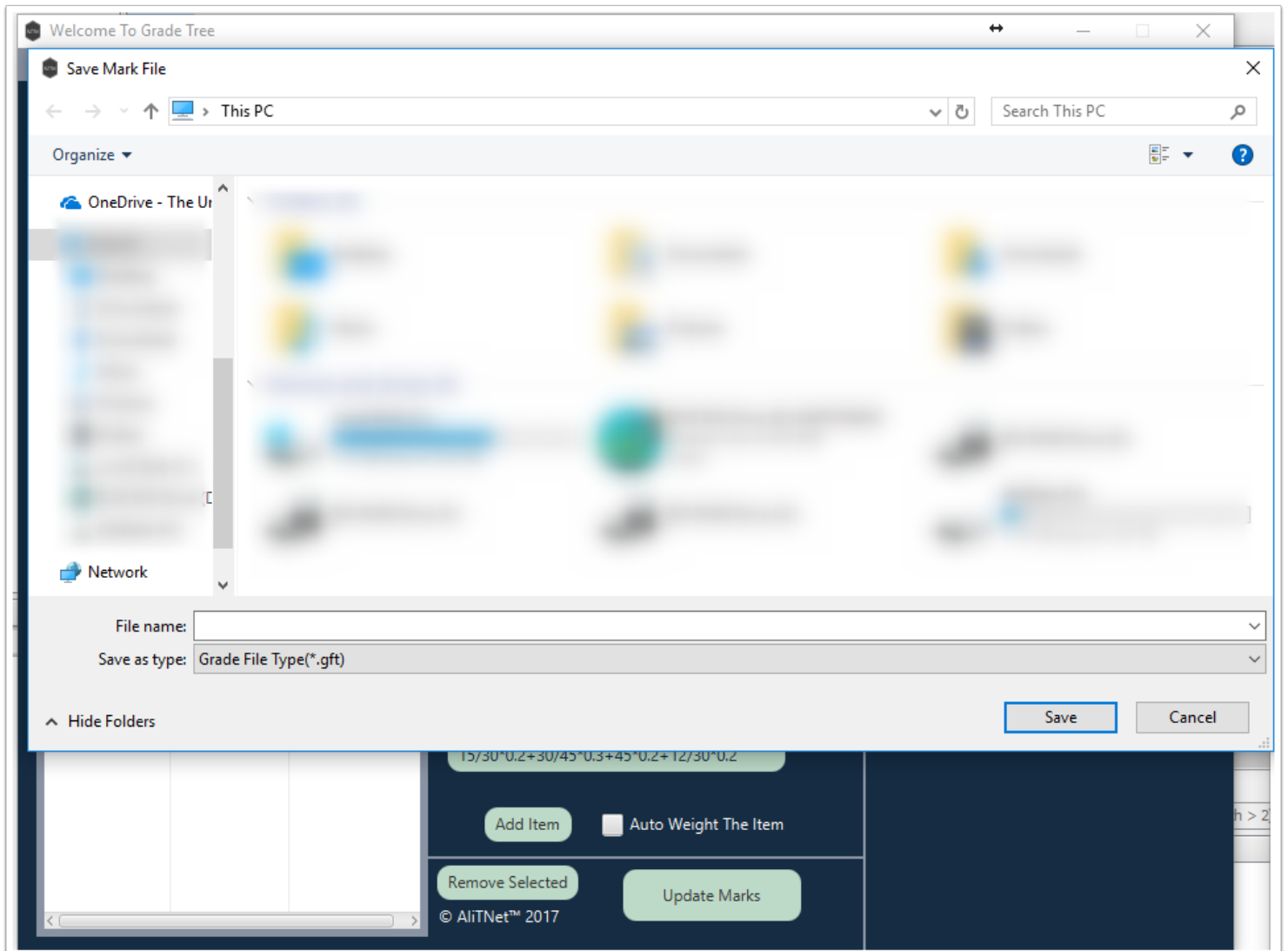
Item Name: Lab1  
Item Weight: 50  
0 3 6 9 13 16 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100

Smart Item Grade Average: 52.222  
 $15/30 \cdot 0.2 + 30/45 \cdot 0.3 + 45 \cdot 0.2 + 12/30 \cdot 0.2$   
Add Item ☐ Auto Weight The Item

Remove Selected Update Marks  
© AliTNet™ 2017

## 4.1 How to use Save As Dialog

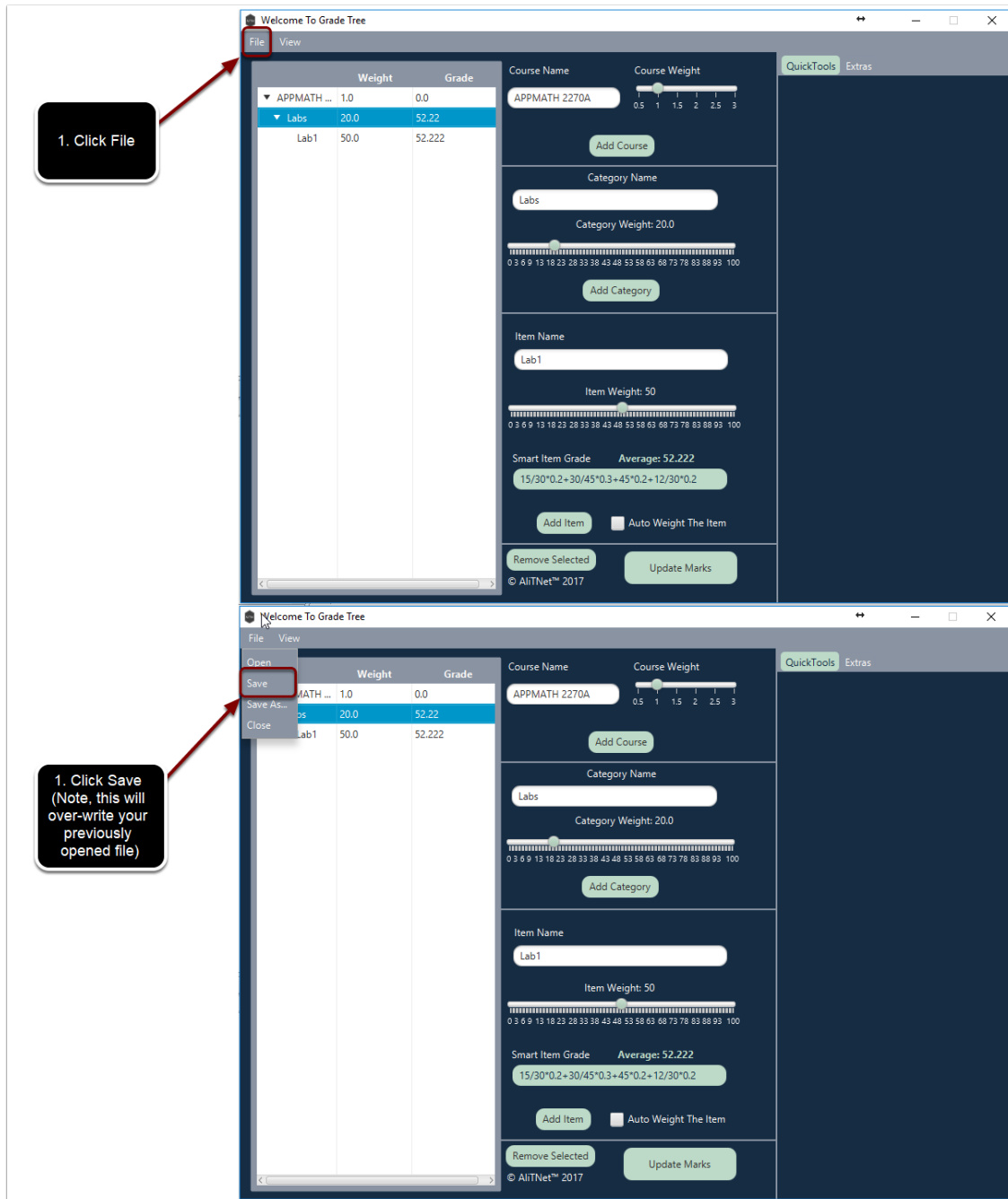
- Step 1. Choose a location
- Step 2. Enter a file name (**do not enter extension as it will be done automatically**)
- Step 3. Click Save



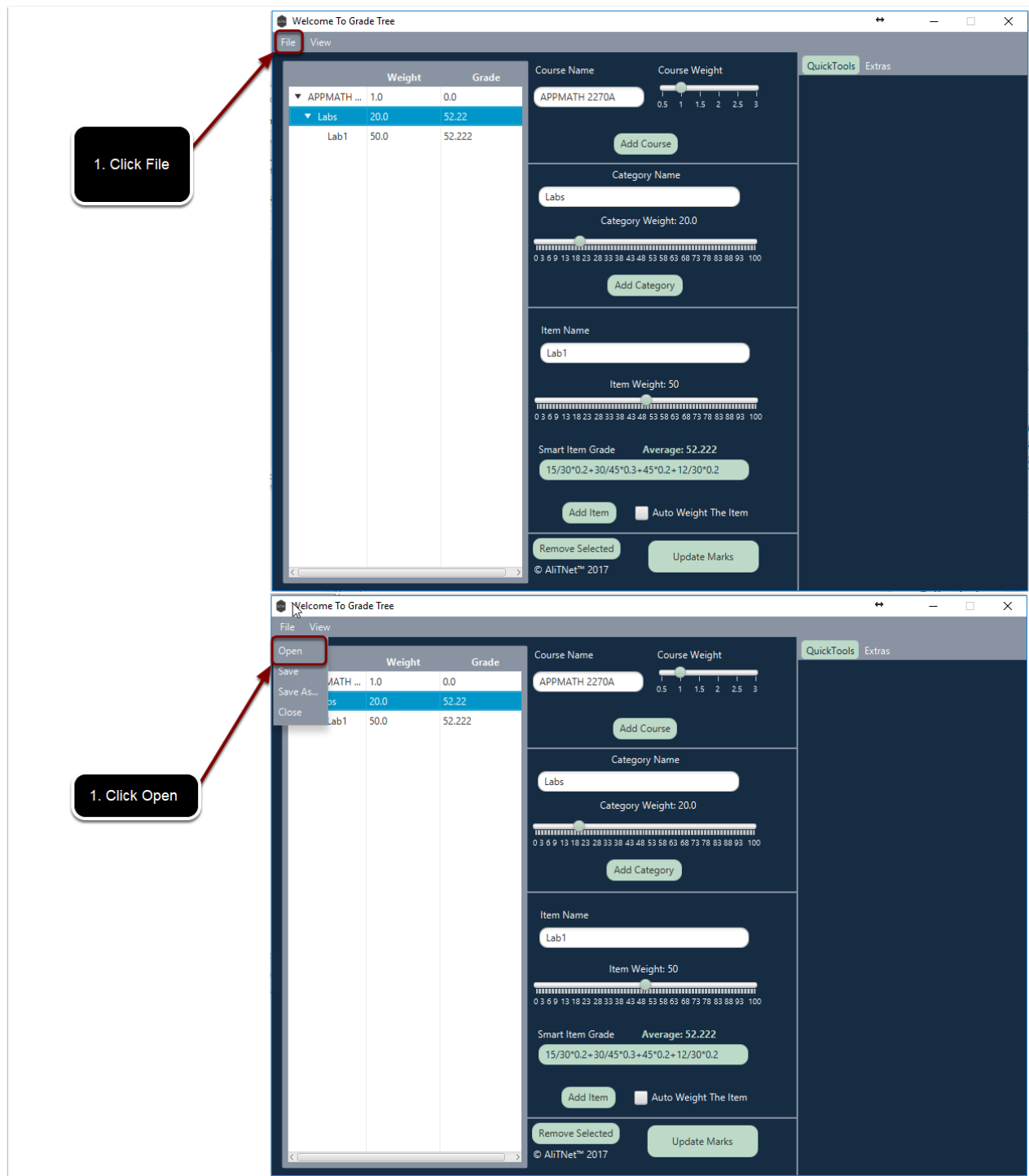


## 4.2 How To Save

- NOTE: Be careful as this button will over write your previously opened file.

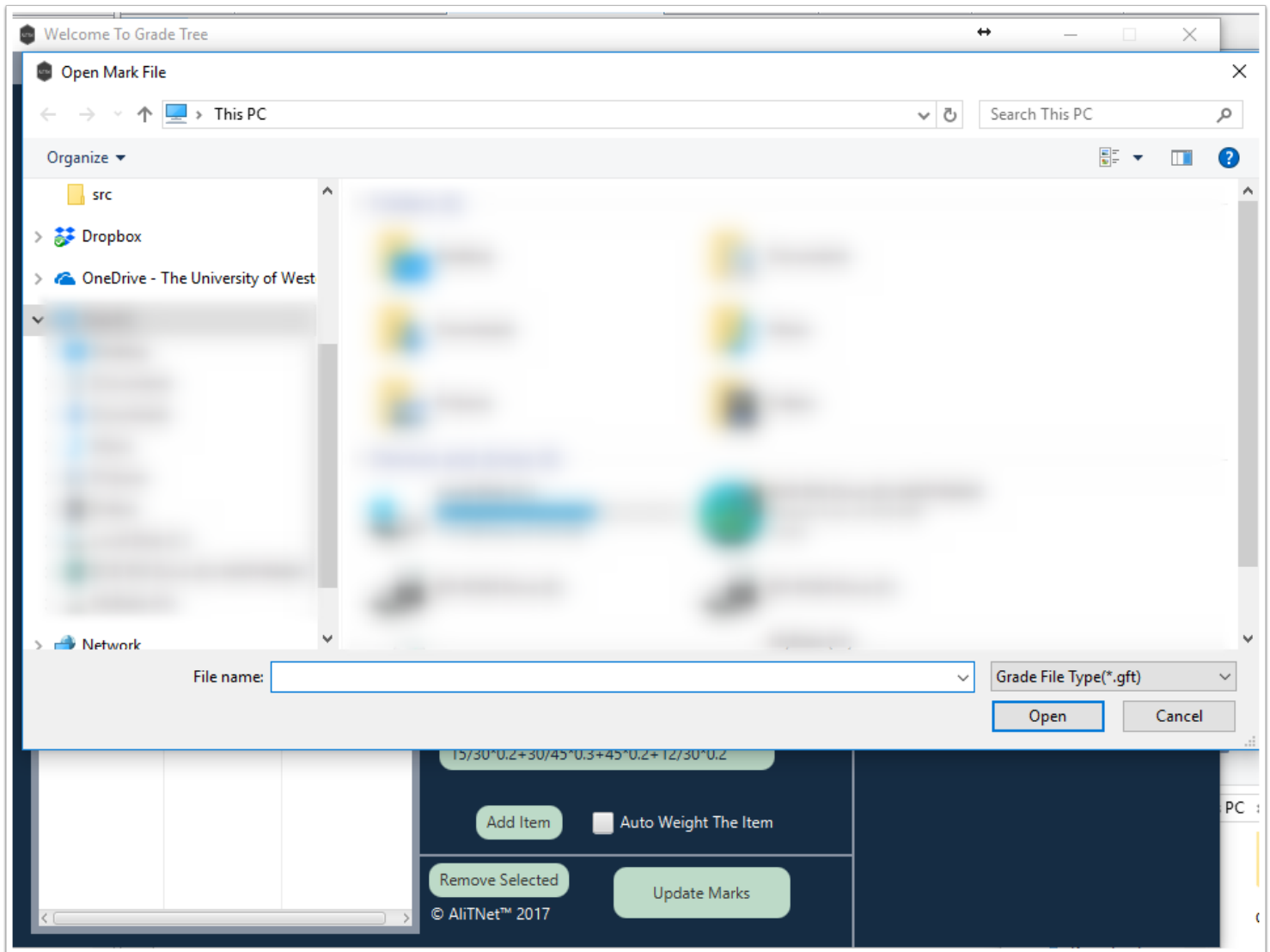


## 5 How to Open a grade book



## How to use Open File Dialog

- Step 1. Choose a file (**NOTE: It must be Grade File Type or .gtf file**)
- Step 3. Click open



## 6. View Your GPA

This option lets you view your grade point average in three different formats.

## 6.1 View Menu

The screenshot shows the Grade Tree V2.0 application window. On the left, two callout boxes provide instructions: "1. Click View" with a red arrow pointing to the "View" button in the top menu, and "2. Click GPA" with a green arrow pointing to the "GPA" button in the dropdown menu. The main interface features a table with columns for Course Name, Weight, and Grade. The table lists "APPMATH ..." with a weight of 1.0 and grade of 0.0, and "Labs" with a weight of 20.0 and grade of 52.22. Below "Labs", "Lab1" is listed with a weight of 50.0 and grade of 52.222. To the right of the table, there are input fields for "Course Name" (APPMATH 2270A), "Course Weight" (slider from 0.5 to 3), "Category Name" (Labs), "Category Weight" (20.0), "Item Name" (Lab1), and "Item Weight" (50). Below these, a "Smart Item Grade" calculation is shown:  $15/30 \cdot 0.2 + 30/45 \cdot 0.3 + 45 \cdot 0.2 + 12/30 \cdot 0.2$ , resulting in an "Average: 52.222". At the bottom, there are buttons for "Add Course", "Add Category", "Add Item", "Remove Selected", and "Update Marks", along with a checkbox for "Auto Weight The Item".

1. Click View

2. Click GPA

Course Name	Weight	Grade
APPMATH ...	1.0	0.0
▼ Labs	20.0	52.22
Lab1	50.0	52.222

Course Name: APPMATH 2270A

Course Weight: 0.5 1 1.5 2 2.5 3

Add Course

Category Name: Labs

Category Weight: 20.0

Add Category

Item Name: Lab1

Item Weight: 50

Smart Item Grade: Average: 52.222

$15/30 \cdot 0.2 + 30/45 \cdot 0.3 + 45 \cdot 0.2 + 12/30 \cdot 0.2$

Add Item ☐ Auto Weight The Item

Remove Selected Update Marks

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6.2 GPA Form

WeightGrade

▼ APPMATH...0.552.22

▼ Labs20.052.22

Lab150.052.222

Course Name

APPMATH2270A

Course Weight

0.511.522.53

Add Course

QuickTools

Extras

Weighted Average

52.22

GPA (out of 4.0)

0.7

Grade Letter

D

Item Name

Lab1

Item Weight: 50.0

03691318232833384348535863687378838893100

Smart Item Grade

52.222

Average: 52.222

Add Item

Auto Weight The Item

Remove Selected

Update Marks

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This is your normal weighted average from your courses

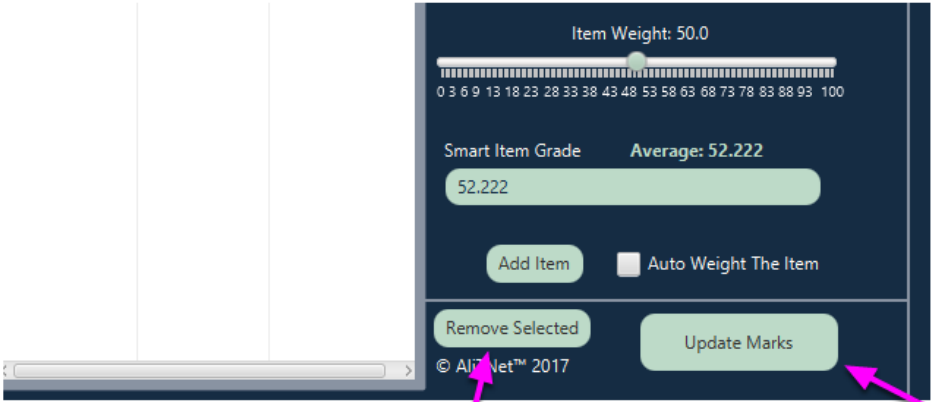
This is your Grade Point Average (Out of 4.0 )

This is your Grade Letter

This is the table the GPA calculations are based on (URL: [http://gradecalc.info/ca/on/uwo/gpa\\_calc.pl](http://gradecalc.info/ca/on/uwo/gpa_calc.pl))

Letter	Percentage	4.0 Scale
A+	90-100	4
A	85-89	3.9
A	80-84	3.7
B	77-79	3.3
B	73-76	3
B	70-72	2.7
C	67-69	2.3
C	63-66	2
C	60-62	1.7
D	57-59	1.3
D	53-56	1
D	50-52	0.7
E	40-49	0
F	0-39	0

## 8. Additional Functionality



The screenshot shows a control panel for the Grade Tree V2.0 interface. At the top, there is a slider labeled "Item Weight: 50.0" with a scale from 0 to 100 in increments of 3. Below the slider, the text "Smart Item Grade" is followed by "Average: 52.222" and a green bar displaying "52.222". There are two buttons: "Add Item" and "Auto Weight The Item" (which has a checkbox). Below these, there are two more buttons: "Remove Selected" and "Update Marks". A copyright notice "© AliTNet™ 2017" is visible at the bottom left of the panel. Two callout boxes with pink arrows point to the "Remove Selected" and "Update Marks" buttons.

Item Weight: 50.0

0 3 6 9 13 18 23 28 33 38 43 48 53 58 63 68 73 78 83 88 93 100

Smart Item Grade Average: 52.222

52.222

Add Item ☐ Auto Weight The Item

Remove Selected Update Marks

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When you want to delete an item, category or course. Press this button while your item, category or course is selected.

You should never have to use this, but in case your marks don't show as expected, press this button to refresh the tree view

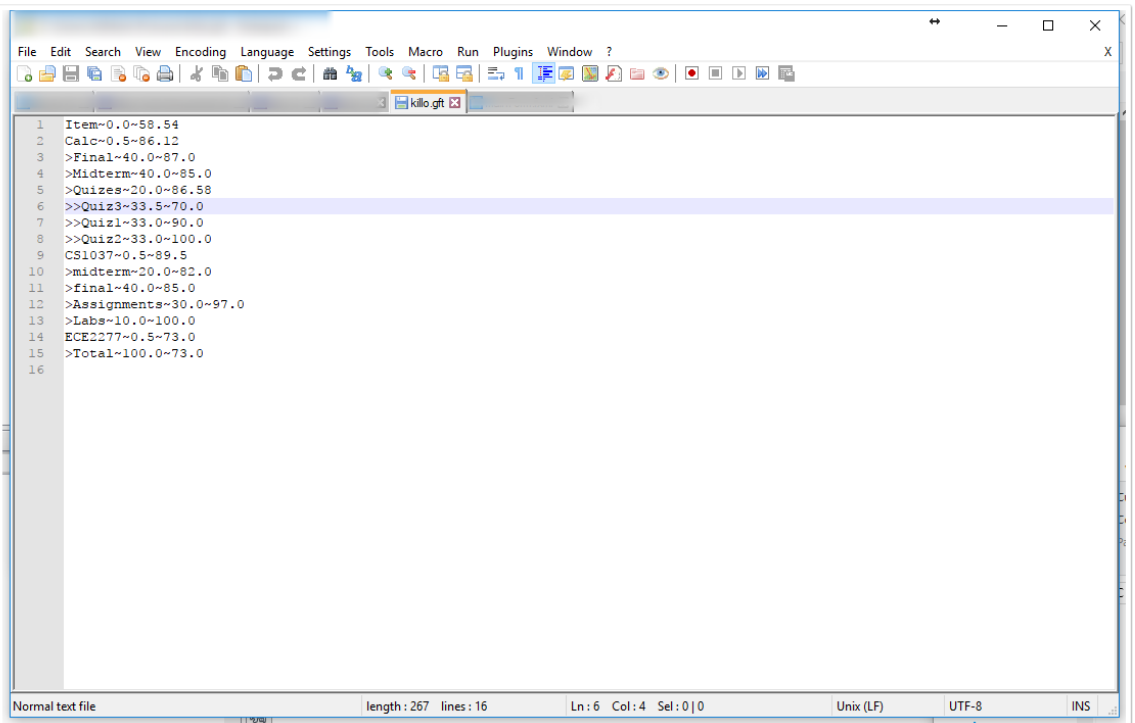


## 7. For the Morbidly Curious

Question: What is in the save file

Answer: Let me show you!

I wrote my own Tree View Saving and Loading system because I don't like serialization and this keeps things clean, modifiable, and expandable. However, I do not recommend modifying the .gtf files manually as it can easily corrupt them, so just leave it to the program to make these files for you.



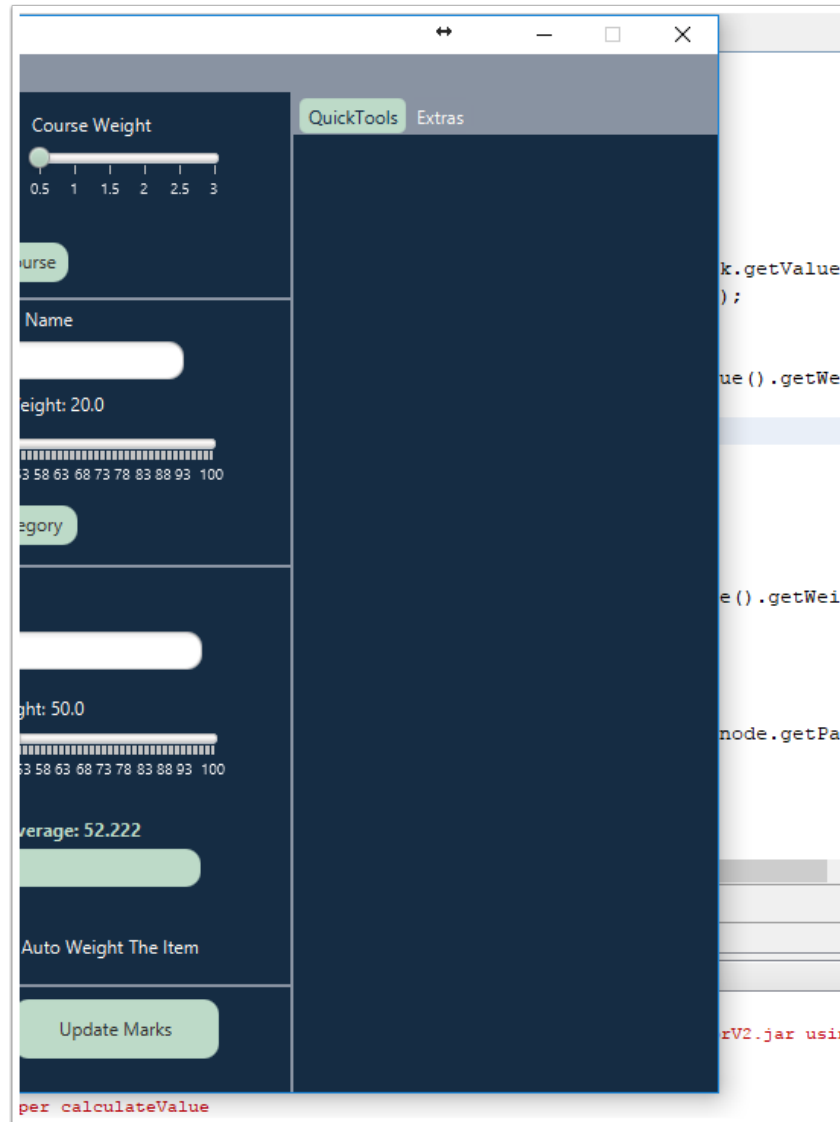
The screenshot shows a text editor window with a menu bar (File, Edit, Search, View, Encoding, Language, Settings, Tools, Macro, Run, Plugins, Window, ?) and a toolbar. The file is named 'killo.gtf'. The content of the file is as follows:

```
1 Item~0.0~58.54
2 Calc~0.5~86.12
3 >Final~40.0~87.0
4 >Midterm~40.0~85.0
5 >Quizzes~20.0~86.58
6 >>Quiz3~33.5~70.0
7 >>Quiz1~33.0~90.0
8 >>Quiz2~33.0~100.0
9 CS1037~0.5~89.5
10 >midterm~20.0~82.0
11 >final~40.0~85.0
12 >Assignments~30.0~97.0
13 >Labs~10.0~100.0
14 ECE2277~0.5~73.0
15 >Total~100.0~73.0
16
```

The status bar at the bottom indicates: Normal text file, length: 267, lines: 16, Ln: 6, Col: 4, Sel: 0 | 0, Unix (LF), UTF-8, INS.

## 9. Future Upgrades

This is part of the program is a place holder for future expansion, please note this program is still in alpha and I would really appreciate your feed back on what to add to this to make it better.



## 10. Final Notes

I hope this program serves you well, if you experience any bugs please send me a screen shot with a description and I will try my best to fix it.

Thank You!