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Truth table construction app User-guide

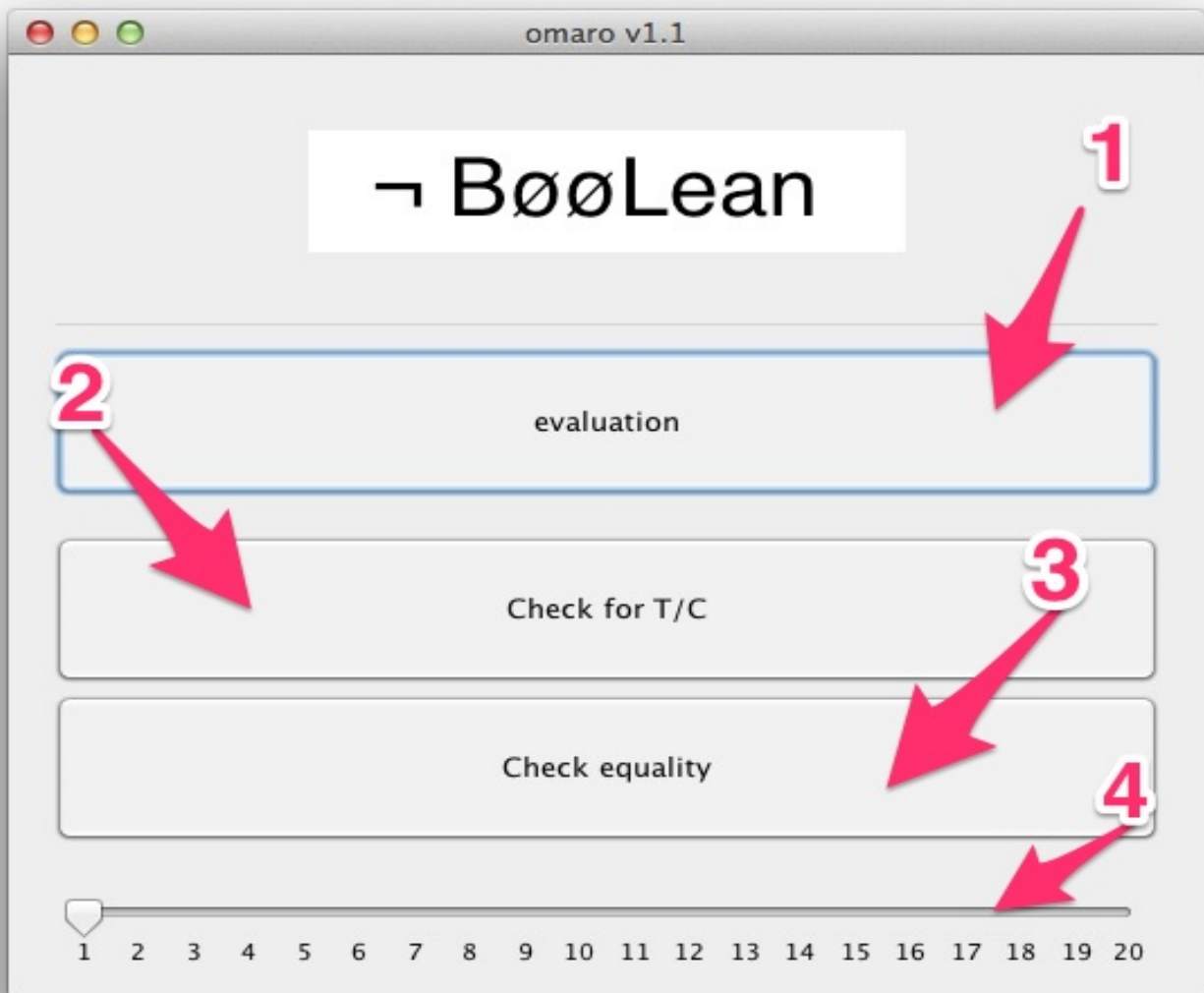
5'th semester
CSED 2016

Instructor: Amr Nabil Sharaf
Name: omar ahmed hussin
ID: 40
E-Mail: omarahmedhussin1@gmail.com
Course: DISCRETE MATHEMATICS

Overview

This application is a very nice tool that solves the logical expressions & make it's truth table & test it for tautology or contradiction and the most important thing it provides multiple expressions evaluation as well as multiple expressions testing for equality.

Main window



1. Evaluation option button
2. Check for tautology and contradiction
3. Check equality option button
4. Number of expressions scroll bar

1. Evaluation option



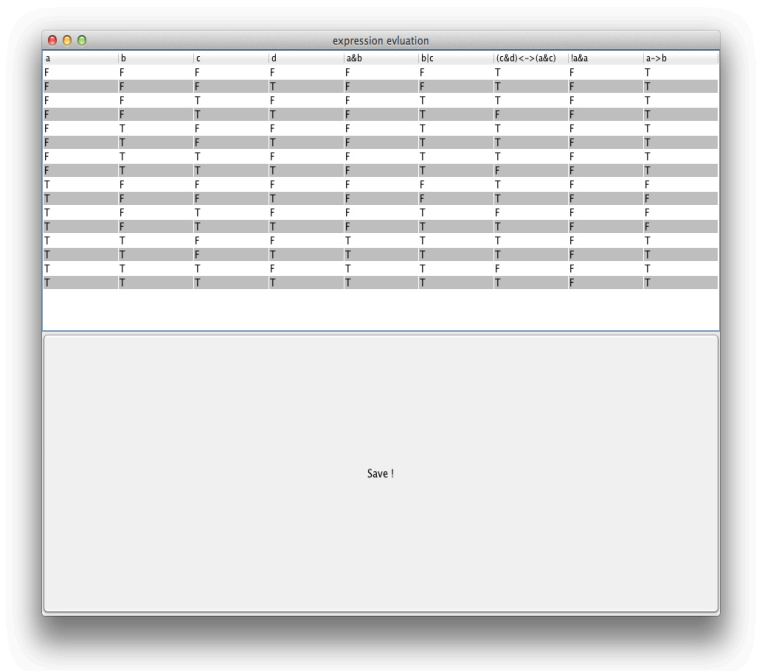
After choosing the number of expression from the main menu and clicking evaluation this window will appear and what you have to is to write down the expressions that you have to evaluate then press evaluate.

Note that if you entered any syntax error in the expressions a pop up window will appear and warn you.

These truth table will appear only if the syntax is correct and it shows the complete truth table for all the expressions

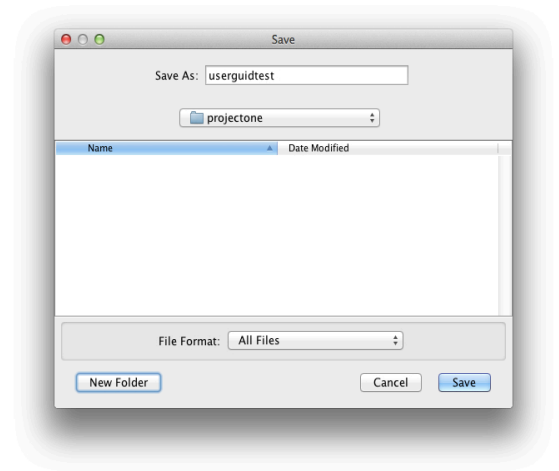
And as you can see the save button to save the truth table in the path you want as a text file.

Also if you can click on any row to see it more obvious the color of that row will change as in the picture.

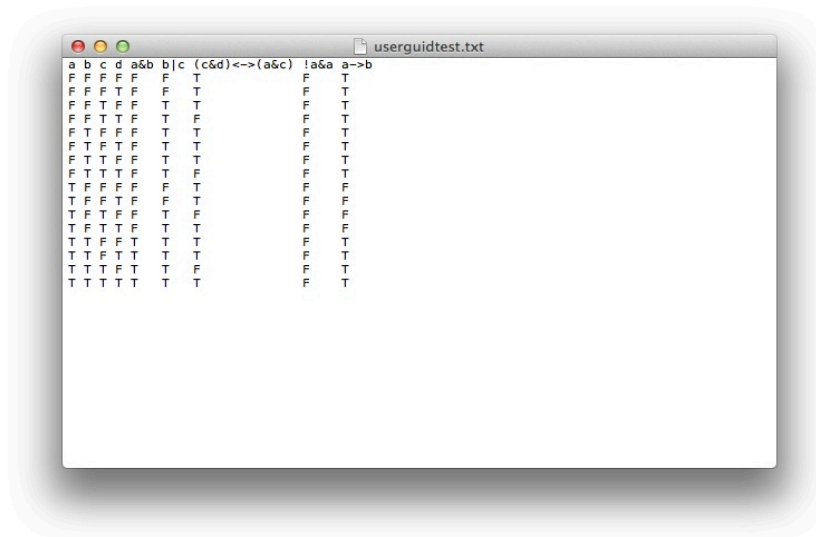


a	b	c	d	a&b	b c	(c&d)<-->(a&c)	!a&a	a-->b
F	F	F	F	F	F	T	F	T
F	F	F	T	F	F	T	F	T
F	F	T	F	F	T	T	F	T
F	F	T	T	F	T	T	F	T
F	T	F	F	F	T	T	F	T
F	T	F	T	F	T	T	F	T
F	T	T	F	F	T	T	F	T
F	T	T	T	F	T	T	F	T
T	F	F	F	F	F	F	T	F
T	F	F	T	F	F	F	T	F
T	F	T	F	F	T	T	F	F
T	F	T	T	F	T	T	F	F
T	T	F	F	T	T	T	F	T
T	T	F	T	T	T	T	F	T
T	T	T	F	T	T	F	F	T
T	T	T	T	T	T	T	F	T

The save scenario when you click on save button this window will appear and all you have to do is to select the path and write the name for the text file then click save.

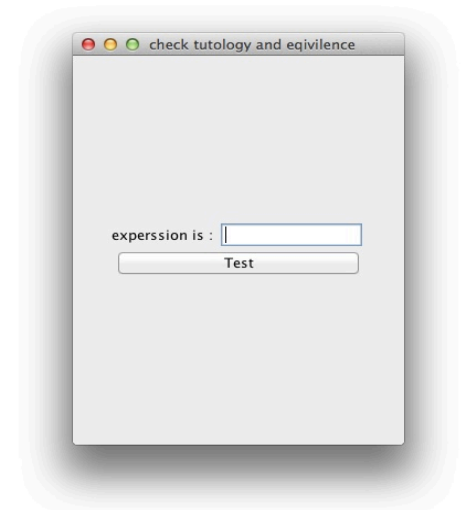


and here is the text file



2. Check for tautology and contradiction scenario

When you click on the check for T/C button this window will appear and All you have to do is to press test after writing the expression and a pop up window will appear and tell you the test (none, tautology, contradiction)



3. Check for equality

After clicking the check equality button a window will appear have a number of fields that on the scroll bar on the main menu and all what you have to do is to write the expressions and click check



After clicking the button a pop up window will appear and tell you the answer (equal, not equal)

