White Box Testing

This is a list of some white box testing done during the development of my application. I had tried to note down all the most relevant testing done for the application.

File: SoundTrad.py, Class CueTimeLine, Function plot
This function receives the information from the cue sheet to create the timeline.

Test:	A message box pops up when either the Time or Sounds File column is empty, or both
Input:	1. Time column and Sound File column empty
	2. Time column is empty
	3. Sound File column is empty
Expected:	QMessageBox pops up
Actual:	As expected

Test:	The items in the cue sheet is correctly plotted on the timeline
Input:	Select the Sound File "Ikson - All Night.wav'" for the example row. Add another row with Time 1:02pm, Cause "State Change", Associated Events "Environmental Events", Sound File "Ikson - Late (Official).wav".
Expected:	There are 2 plotted bars that overlap one-another on the timeline. The first one starts at 13:00, and the other starts playing at 13:02
Actual:	As expected

Test:	Time format can be converted
Input:	Enter a 12-hour time e.g. 1:02pm
Expected:	QMessageBox pops up telling you there's an error
Actual:	Application crashes with no error popping up.
	Fix: I realised that it was only checking for times 1-9, it did not take into account double digits for the hour.

File: SoundTrad.py, Class CueTimeLine, Function handleSave and handleOpen

These functions open and save the cue sheet.

Test:	Open a cue sheet
Input:	Select csv file named test.csv which is used as an example cue sheet
Expected:	File browser window closes, and anything that was in the cue sheet before has been wiped and replaced with the information in the csv files selected
Actual:	As expected

Test:	Save a cue sheet
Input:	Fill in a cue sheet with 2-3 rows of data
Expected:	The information should all be saved in a csv file with commas separating each piece data. Function will split table by each row and then each column.
Actual:	The cue sheet was not being saved. There are commas appearing, but with no data. **Fix:** Needed another loop within the function.

Note: The above problem had been fixed before doing the below test

Test:	Save a cue sheet with some empty cells
Input:	Fill in a cue sheet with 2-3 rows of data, with some cells that are empty
Expected:	File browser window closes, and anything that was in the cue sheet before has been wiped and replaced with the information in the csv files selected
Actual:	As expected

Test:	Overwrite a cue sheet
Input:	Open up a cue sheet or save current cue sheet. Makes some changes and then save to overwrite the cue sheets previous data. Clear the entire cue sheet and then open the cue sheet that was saved back up.
Expected:	The cue sheet should contain the information that was last saved
Actual:	As expected

File: soundsuggestion.py, Class SoundSuggestion, Function loadSounds

The function receives the cause and event associated tag, to lookup the sounds to suggest

Test:	The suggested sounds that appear match the tags the user has selected
Input:	Cause "State Change", Associated Events "Environmental Events".
Expected:	The suggested sounds that appear all have the same tags that were set in the cue-sheet
Actual:	As expected

Test:	When adding new sounds, the tags match what the user selected in the cue sheet.
Input:	Click "Add Sound" and select any WAV type sound file
Expected:	The new added sound has matching tags as the rest of the sounds in the sound suggestion dialog
Actual:	As expected

File: enterdb.py, Class EnterDb, Function accept

The function connects to MySQL

Test:	Error message when connection doesn't work

Input:	Enter in something random for host, username, and password in the database login popup on start-up of application
Expected:	The connection does not work, so an error message should pop-up that says this. The database login dialog should still be displayed.
Actual:	As expected

Test:	When connected the database sounds should be available to select in the sound suggestion dialog
Input:	Connect to a user account with complete access granted to DB. Then set the cause and associated events to a combination which has sound files already stored for it in the DB
Expected:	The sound suggestion dialog should show a list of sound files available with that user account
Actual:	As expected

Summary

I tried to make as many corrections as possible to my application before grey box testing, so it would not be detrimental to the usability of it. I had discussed some of these issues along the way to my supervisor, to mention any errors that may take slightly longer to fix than I thought, although a majority were quite simple fixes.