User Manual

Name Sayer

The Name Pronunciation Aid
Built for Students

Kungeng Wu and Harrison Leach

Contents

1	Firs	t Time Launch	3	
	1.1	Prerequisites	3	
	1.2	How to run	3	
2	Lice	enses	4	
	2.1	Licenses for libraries and other resources	4	
3	Star	rt Menu	5	
	3.1	Test Mic	6	
	3.2	Select Database	7	
	3.3	How should my database files be named?	8	
4	Mai	n Pane	9	
	4.1	Daily Streak	10	
	4.2	Levelling System	10	
5	Search Pane			
	5.1	Fusing/Searching recordings of first and family names together	11	
	5.2	Uploading Text File with List of Names	12	
	5.3	Using a Playlist	13	
	5.4	Saving a Playlist	14	
6	Vie	w Database	15	
7	Vie	w Attempts/Recordings	16	
8	Play	Scene	17	
	8.1	Listening to Recordings	18	
	8.2	Cycling through the Playlist	19	
	8.3	Rating the Quality of the Recording	20	
	8.4	Creating your own Recording	21	
	8.5	Comparing your recording with the database	22	
9	Mis	sing Names	23	
10	Full	Licenses	25	

List of Figures

1	Start Menu	5
2	Test Mic Scene	6
3	Select Database	7
4	Database File Naming	8
5	Main Pane	9
6	Daily Streak and Levelling System	10
7	Fusing/Searching Names	11
8	Uploading a Text File	12
9	Example of Text File Format	12
10	Using a Playlist	13
11	Saving a Playlist	14
12	Viewing the Database	15
13	Viewing Attempts/Recordings	16
14		17
15	Playing Recordings	18
16	Cycling through Recordings	19
17	Rating the Recordings	20
18	Creating a Recording	21
19	Comparing your Recording	22
20	Missing Names in the Search Pane	23
21	Missing Names in the Play Scene	24

1 First Time Launch

Thank you for using NameSayer for your preferred pronunciation aid. Note that this application is targeted toward student users.

1.1 Prerequisites

• Java 8, to install type the following into the terminal:

```
$ sudo apt install default-jre
```

- JavaFX runtime
- Audio input and Output devices
- It is only runnable on a Linux OS
- The system must have ffmpeg installed, to install type the following into the terminal:
 - \$ sudo apt install ffmpeg
- (Optional) make sure the 'UserManual.pdf' is located in the same directory as the 'NameSayer-1.0.jar'.
- You should have the 'names' folder in the same directory as the 'NameSayer-1.0.jar'. Or another database of name recordings. See sections 'Choose Database' and 'How should my database files be named?' for more information.

1.2 How to run

Navigate to the same directory as the jar file and type the following command into the terminal:

```
$ java -jar NameSayer-1.0.jar
```

2 Licenses

NameSayer is licensed under the GNU General Public license and is free software.

This program is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program. If not, see http://www.gnu.org/licenses/>.

2.1 Licenses for libraries and other resources

Full licenses can be found at the end of this document

- The included 'names' database was provided by Dr. Catherine Watson. The license for these is unknown.
- The ControlsFX library is licensed under the BSD 3-clause license
- The FFmpeg library is licensed under the GNU Lesser General Public License (LGPL) version 2.1 or later.

3 Start Menu

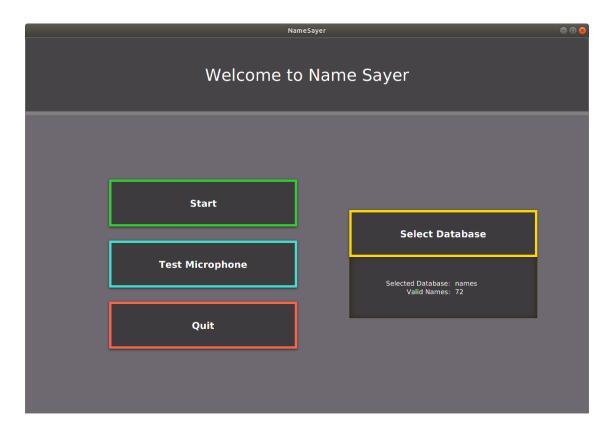


Figure 1: Start Menu

The entry point of the NameSayer application is the Start Menu (shown in figure 1 above) which allows for microphone checking and database selection before the application is started.

3.1 Test Mic

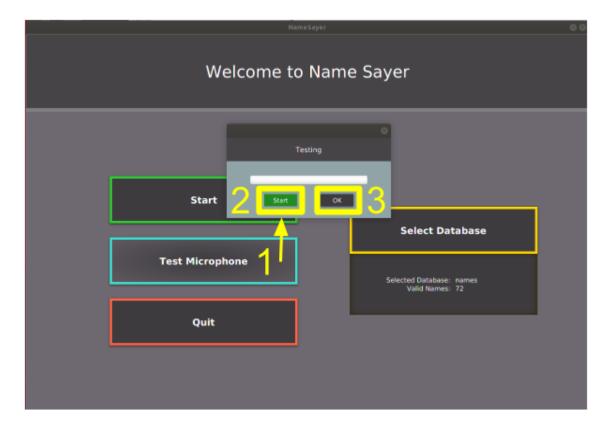


Figure 2: Test Mic Scene

- 1 To test your microphone before starting, press the 'Test Microphone' button of the Start Menu. The Testing window will then appear.
- 2 Press the 'Start' button in the testing window. The bar will now indicate to you the volume of the input received from your microphone. Speak into your microphone to test if it is working.
- ${f 3}$ When you are done testing your microphone, press the ' ${f OK}$ ' button to close the testing window.

3.2 Select Database



Figure 3: Select Database

Initially, the default directory used as the database to practise from is called 'names'. This will be empty if the 'names' directory is not in the same directory as the application. If you wish to change the directory that is used for practising you can do so by doing the following:

- 1 Press the 'Select Database' button. A window will appear allowing you to choose a directory.
- 2 Once you have found the directory you want to select as the database, select it and press the 'Open' button. The chooser window will close.
- 3 Under the 'Select Database' button you will be able to confirm you have selected the correct database and you will be able to see how many valid unique names were found from the files in the directory.

3.3 How should my database files be named?

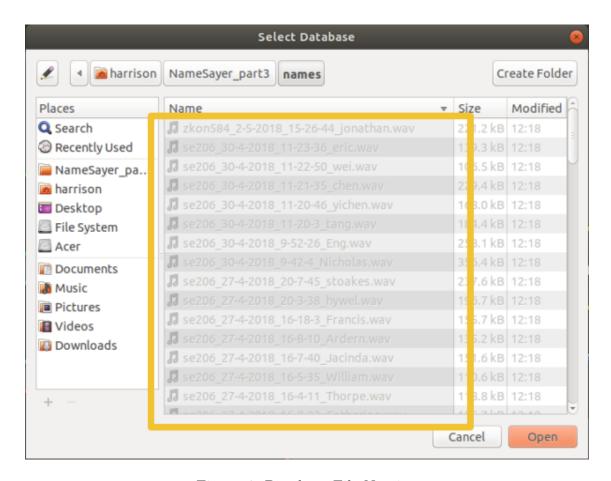


Figure 4: Database File Naming

The figure above shows an example of the recording files you should be expecting to see inside a database directory.

In order for recording files to be recognised as a valid name recording file they should have the following file name format:

 $\langle createdby \rangle_{-}dd$ -MM- $yyyy_{-}HH$ -mm- $ss_{-}\langle name \rangle$.wav

For example:

 $se206_2-5-2018_15-23-50_Mason.wav$

This indicates the recording was created by the se206 class on the 2nd of May 2018 at 3:23:50 PM and the recording is of the Name Mason.

Recording files MUST be in this format and be a .wav file to be a valid name recording that can be practised by the user.

4 Main Pane

When you have finished checking your microphone and selected your database, pressing the 'Start' button will take you to the Main pane.

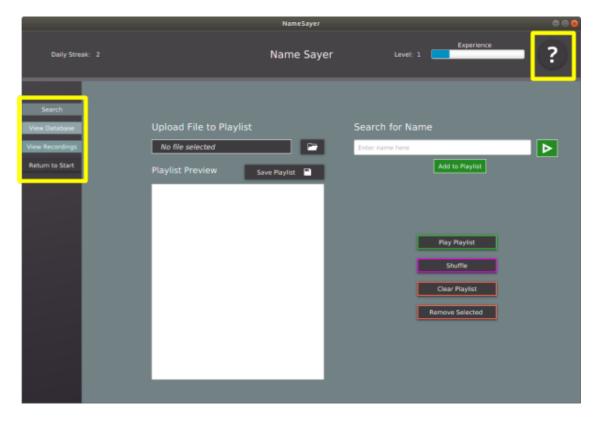


Figure 5: Main Pane

The main pane consists of a header, sidebar and main body.

The help ('?') button on the right takes you to this manual, if the 'UserManual.pdf' is not located in the same directory as the jar file or you do not have an application for opening pdf files installed, an error message will appear.

The options in the sidebar determine what is shown on the main body of the main pane.

The main body defaults to the search pane which you can also navigate to by selecting the 'Search' option on the sidebar. See 'Search Pane' section for more info.

The 'View Database' option takes you to the view database pane. See the 'View Database' section for more info.

The 'View Recordings' option takes you to the view recordings pane. See the 'View Recordings' section for more info.

You can also return to the start menu using the 'Return to Start' button.

4.1 Daily Streak

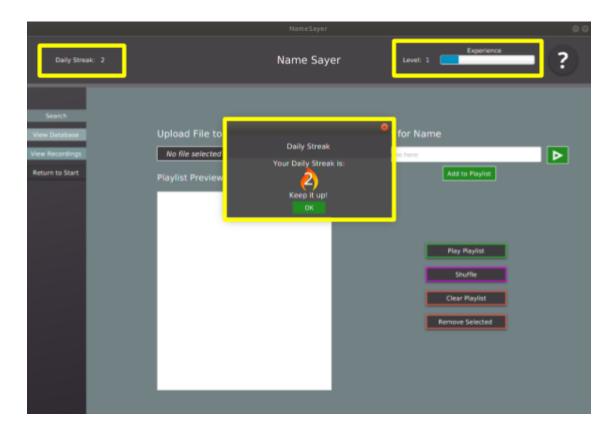


Figure 6: Daily Streak and Levelling System

The first time you enter the main pane, your daily streaks will be shown in a pop-up window.

Your daily streak counts the number of successive days you have logged in to the NameSayer application. If you don't log in for one day, you will lose your streak.

Your daily streak is always displayed in the header of the main pane.

4.2 Levelling System

In the header of the main pane you will see your experience level in the top right.

Initially you start at level 1. To increase your level you need to practise names by recording and comparing yourself to the database recordings.

The amount of experience you gain is dependent on how well you pronounced the recording. See the 'Comparing your recording with the database' section for more information.

5 Search Pane

5.1 Fusing/Searching recordings of first and family names together

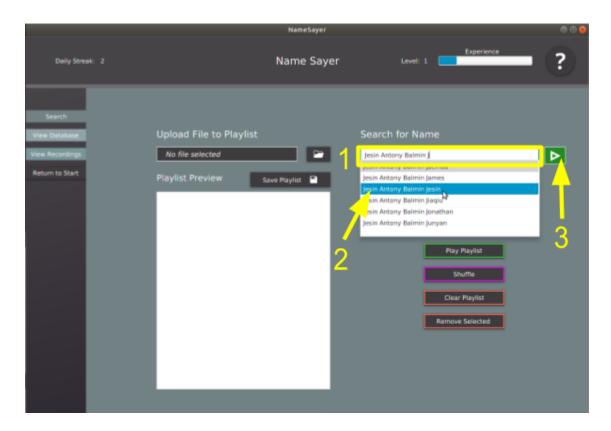


Figure 7: Fusing/Searching Names

1 To specify multiple names to fuse together type your desired name in the 'Search for Name' text field. Your names can be of the form:

 $\langle FirstName(s)\rangle ... \langle MiddleName(s)\rangle ... \langle LastName(s)\rangle$

You can have as many first, middle and last names as you want. Either a space or hyphen can separate each name.

- 2 While typing, you will receive suggestions in a drop-down box related to what you are typing. This will help you search for the names you are looking for. You can use the **UP** and **DOWN** arrow keys to navigate through the sugges
 - tions. Press **ENTER** on the suggestion you want, and it will autocomplete your name.
- **3** When you have completed your name, press the button with the 'Play' symbol. This will take you to the play scene where you can playback and practise the name.
 - Alternatively, you can press the 'Add to Playlist' button or simply press the ENTER key in the text field and the name will be added to the playlist.

5.2 Uploading Text File with List of Names

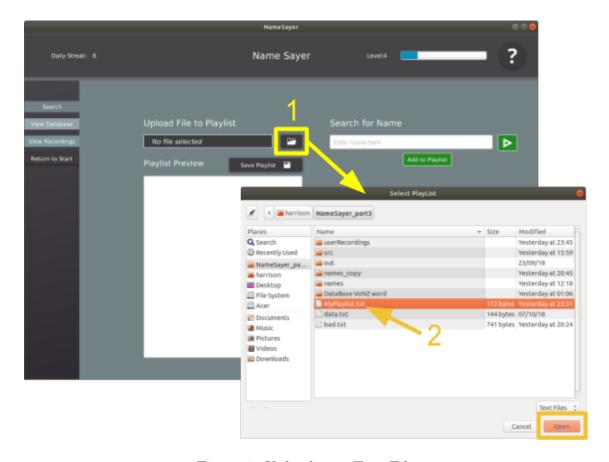


Figure 8: Uploading a Text File

- 1 To upload your own text file to practise, press the button with the 'Folder' symbol.
- 2 A new window will open, double-click the text file containing the names you wish to upload or select it and press the 'Open' button. Note that the text file should have the following format:

Jacinda Ardern James Smith Jesin Antony Balmin Jose Li Kalana Ratnayake

Figure 9: Example of Text File Format

This means each name should occupy its own line in the file.

3 After selecting the file you will have to wait for it to load in. It will then appear in the playlist as seen in the next section.

5.3 Using a Playlist

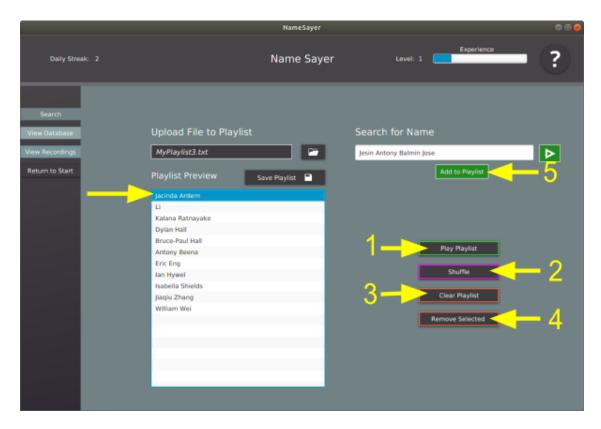


Figure 10: Using a Playlist

- 1 Press the 'Play Playlist' button to move to the play scene to practise and iterate through all names in the playlist.
- 2 Press the 'Shuffle' button to randomise the order in which the playlist is arranged. The order in which they appear in the playlist is the order in which they will be practised in the play scene.
- 3 Press the 'Clear Playlist' button to remove all names from the playlist and start a new playlist.
- 4 Press the 'Remove Selected' button to remove all selected names from the playlist. A selected name is highlighted in blue, multiple names or a single name can be highlighted blue by clicking on them.
- 5 Press the 'Add to Playlist' button to add the name that is currently in the 'Search for Name' text field.

5.4 Saving a Playlist

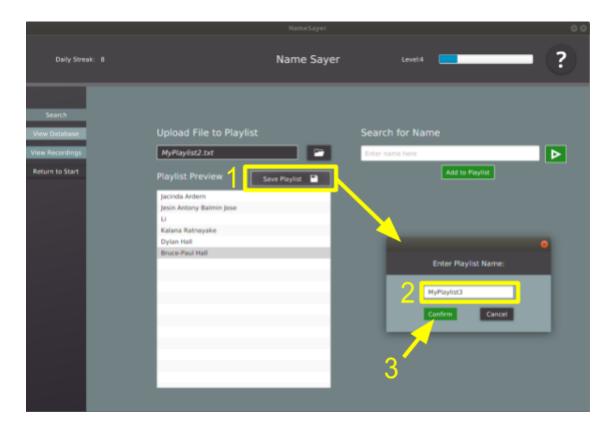


Figure 11: Saving a Playlist

After adding and removing some names from a playlist, you may decide you want to keep it for later use. Instead of having to leave the application and manually write the names to a text file you can save the playlist very quickly from the application. This creates a new text file for you so you can upload and reuse it next time.

How to save a playlist:

- 1 Once you are happy with the names that are currently displayed in the playlist, press the 'Save Playlist' button.
- **2** A new window is opened. In the text field enter the name of the text file you wish to save this playlist as.
 - **Note that any existing text files with the same name will be overwritten.
- **3** Press the 'Confirm' button, your playlist will be saved, and the save window will close.

6 View Database

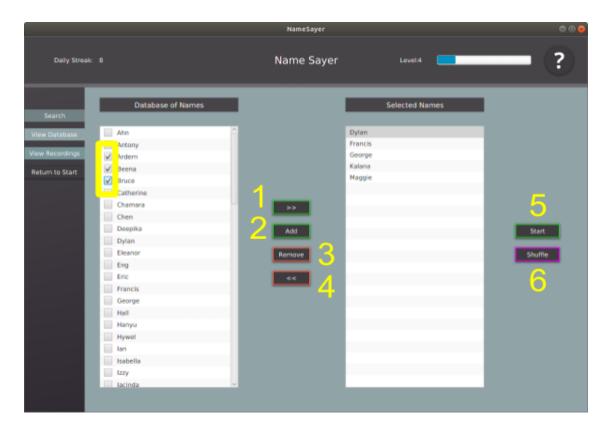


Figure 12: Viewing the Database

The view database pane allows you to select names from the database and practise them.

The list of names in the database is displayed in the tree on the left under the heading 'Database of Names'. The list of selected names is displayed in a list on the right under the heading 'Selected Names'.

- 1 To add all names in the database to the selected list, click the \rangle button.
- 2 To practise names, click the checkbox next to the names you wish to practise and then click the add button.
- **3** To remove names from the selected list, click on the name in the selected list and click the remove button.
- 4 To clear all names from the selected list click the $\langle \langle \rangle$ button.
- **5** When you are happy with the selected list, pressing start will take you to the play scene where you can begin practising.
- **6** If you want to randomise the order of names in the selected list, click the shuffle button on the right.

7 View Attempts/Recordings

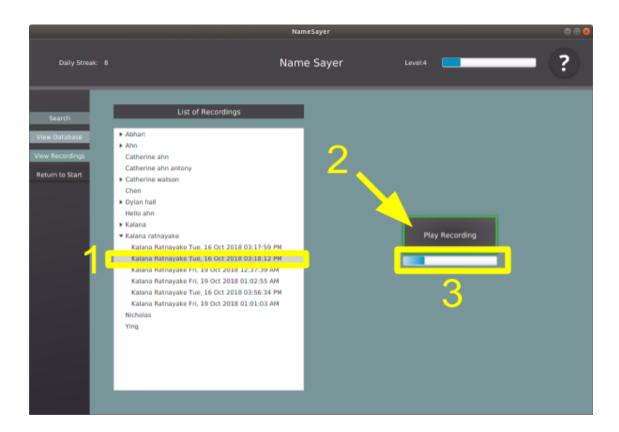


Figure 13: Viewing Attempts/Recordings

The view recordings pane allows you to listen to not only your latest attempt but all previously saved attempts.

The recordings are displayed in a tree under the heading'List of Recordings'.

The recordings are identified by the name that is recorded and the date and time when it was recorded, allowing you to differentiate between the different versions.

- 1 To play a recording, select the recording in the tree.
- 2 Press the 'Play Recording' button on the right.
- 3 When the recording begins, the progress bar beneath the 'Play Recording' button will also begin, showing you that the recording is playing.

Note that you can access the audio files in the userRecordings folder in the same directory as the Jar

8 Play Scene

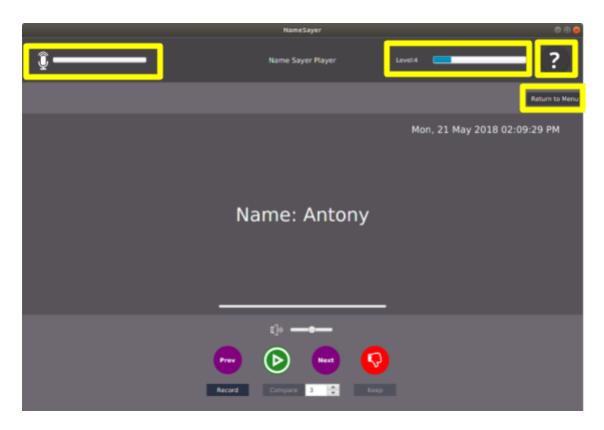


Figure 14: Play Scene

The play scene allows you to practise saying the names by listening to the recording from the database, creating your own recording and then comparing your recording with the recording in the database.

The header of the play scene also shows the users mic level, experience level and the help button which links to this manual.

You can return to the main pane at any time by pressing the 'Return to Menu' button on the top right.

8.1 Listening to Recordings

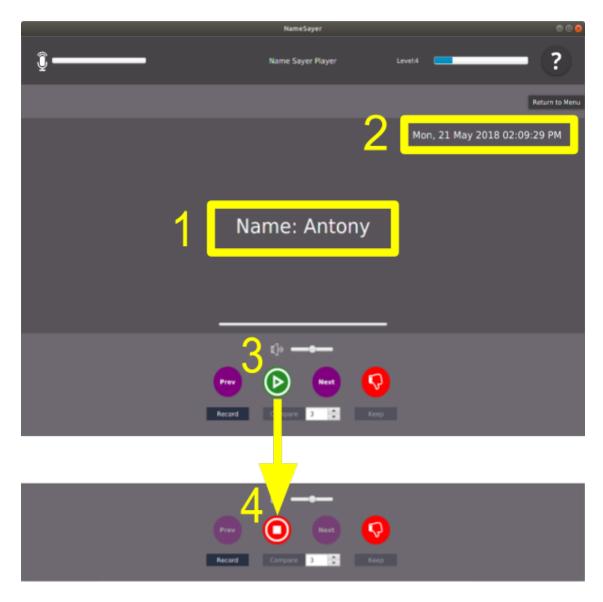


Figure 15: Playing Recordings

- 1 The name of the current recording is displayed in the centre of the scene.
- 2 The date when it was recorded is displayed on the top right.
- 3 To play the current name, click the green 'Play' button.
- 4 When the recording is playing, the play button turns into a stop button. To stop the playback, click the 'Stop' button.

When the recording has finished playing, or the 'Stop' button is pressed, the 'Stop' button turns back into the 'Play' button.

You can press the play button again to listen to the recording as many times as you want.

8.2 Cycling through the Playlist

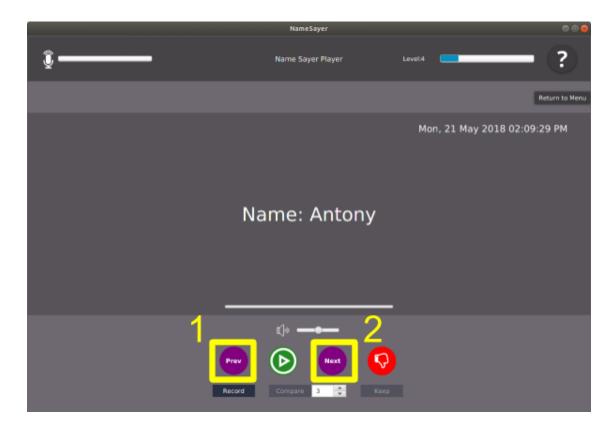


Figure 16: Cycling through Recordings

You can cycle through the list of names you selected either from the search pane or view database pane using the 'next' and 'previous' buttons.

- 1 The 'Prev' button changes the displayed recording to the previous recording in the list.
 - The 'Prev' button starts disabled and only becomes enabled if the current recording is not the first in the list.
- 2 The 'Next' button changes the displayed recording to the next recording in the list.
 - The 'Next' button becomes disabled once you reach the end of your list.

8.3 Rating the Quality of the Recording

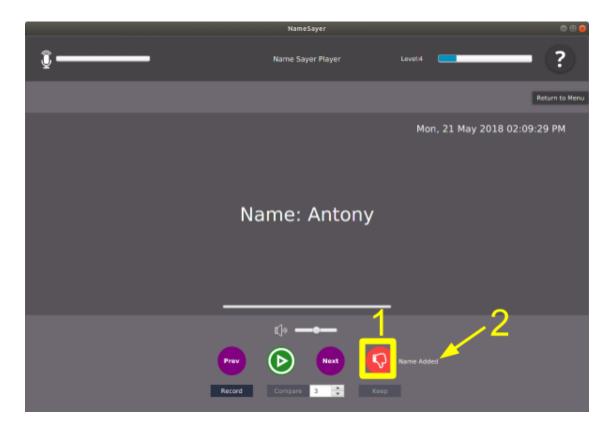


Figure 17: Rating the Recordings

- 1 If you think the current recording of the name is of bad quality you can press the 'thumbs down' button to flag the recording as bad.
- **2** Pressing the button displays a message notifying you that the recording has been marked as bad.

All recordings marked as bad are added to the 'bad.txt' file in the current working directory which keeps a record of the bad recordings so that an admin can decide what to do with them later.

8.4 Creating your own Recording

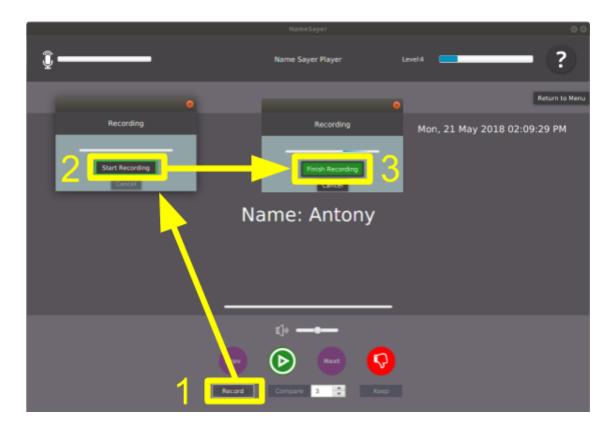


Figure 18: Creating a Recording

- 1 If you want to create your own recording of the current name, click the record button and a recording window will show up.
- 2 When you are ready to begin, recording press the 'Start Recording' button. The progress bar will start when you are recording, and the 'Start Recording' button will be replaced with a 'Finish Recording' button.
- **3** When you have finished recording press the 'Finish Recording'. This will take you back to the play scene.

Note that the maximum recording time allowed is 15 seconds.

If you want to return to the play scene without finishing a recording, press the 'Cancel' button.

8.5 Comparing your recording with the database



Figure 19: Comparing your Recording

The compare functionality becomes enabled after you have created your own recording of the current name.

- 1 Click the 'Compare' button to play your recording followed by the database recording, 3 times.
- 2 You can choose the number of times (between 1 and 10) the recordings loop by adjusting the spinner next to the 'Compare' button.
- **3** After comparing the first time, a window will appear asking if you thought your recording was good, average, or bad.
 - How you performed will influence how much experience you receive.
- 4 If you want to keep your recording, simply press the 'Keep' button next to compare, which should be enabled after you created a recording.
 - When you press the 'Keep' button a message will appear notifying you the recording has been saved and can be accessed in the View Recordings pane.

9 Missing Names

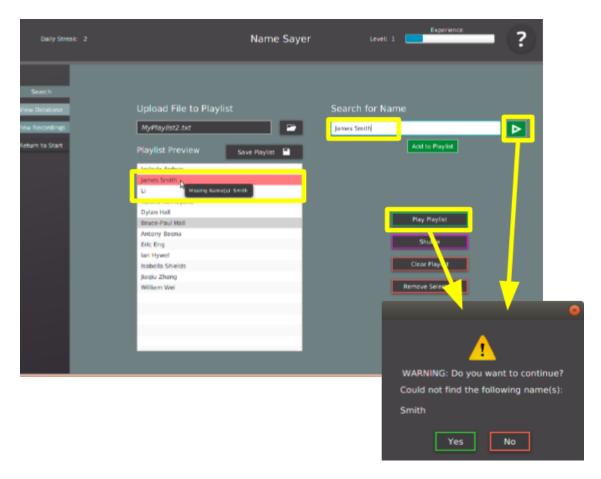


Figure 20: Missing Names in the Search Pane

When a name recording is missing from the selected database, there are different ways to deal with them.

- When you have entered a missing name and the 'Play' symbol button is pressed, you will be notified of a warning which shows you the names that are not in the database.
- When a name that contains a recording that is not in the database is added to the playlist, it will be highlighted red in the playlist view.
- To find out which name recordings are missing from the name, simply hover over the entry in the playlist and a helpful tooltip will appear.
- In either case, you can choose to remove/ignore the name. Or you can continue to the play scene to practise with the found audio and without the missing audio.

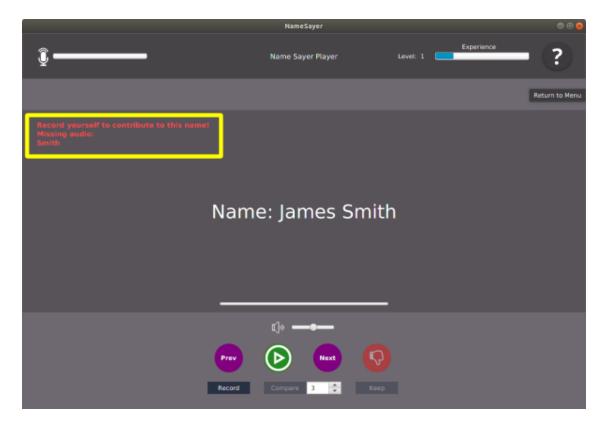


Figure 21: Missing Names in the Play Scene

When moving to the play scene you will see a message displaying which audio recordings are missing from the database.

When press the play button you will only hear the audio that is present in the database.

However, you are encouraged to practise pronouncing the full name. This way you can contribute the missing audio to the names database.

To contribute to the names database, press the 'keep' button after recording. The audio file will then be stored in the 'userRecordings' folder in the same directory as the Jar. You can then move the file to the database.

10 Full Licenses

== BSD 3 Clause License ==

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the copyright holder nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.