VARpedia

USER MANUAL

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INTRODUCTION

VARpedia is a visual, aural and reading encyclopedia. The purpose of this user manual is to explain the features of VARpedia. This manual is intended for the parent of the child using the application. This application is a tool that complements a user's learning. The user can create learning creations. These creations can be watched or used within the applications active learning component the quiz game. Creations are videos that represent the input search term. Creations contain speech synthesised audio of the Wikipedia search of the term, a slideshow of Flickr images related to the term and a caption of the search term within the video.

FIRST TIME LAUNCH

Before launching VARpedia, please make sure the following libraries are installed. These are needed to run VARpedia. VARpedia was designed for a Linux operating system (The SOFTENG206-image-2019-updated-0911.ova image).

- 1. Java Runtime Environment 13
- 2. JavaFX13
- 3. Wikit
- 4. FFMPEG

To run VARpedia, please type the following command in Terminal: bash run.sh

Please refer to the README.md, for explicit instructions on how to setup the application.

Upon first launch. VARpedia will create the following folders "creations", "quiz" and "chunks" in the same directory where the jar and run.sh file is located.

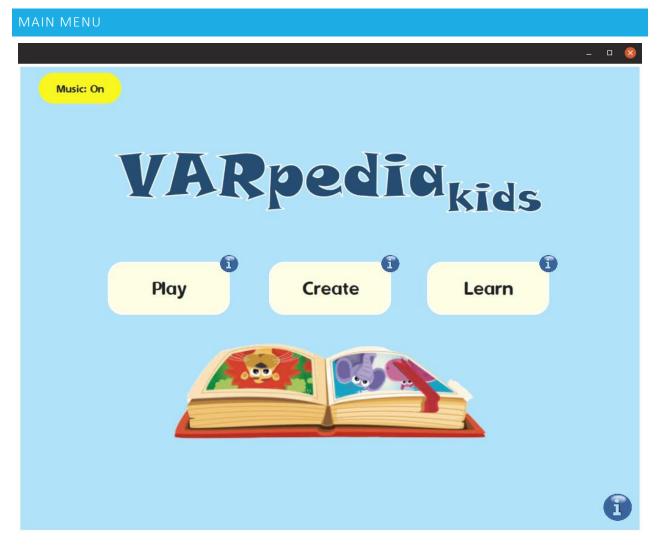


Figure 1: VARpedia Main Menu

Upon starting the application, the user is shown the main menu as shown in Figure 1. This screen shows Three options for the user to choose from:

- Play: This option takes the user to the watch screen, where you can play a creation video or delete a creation. The user will also have the option to create a new creation.
- Create: This option takes the user the creation screen where the user will be guided through creating a new creation.
- Learn: This option takes the user to the quiz screen, where the user can quiz themselves on their created creations.

There is also the option for the user to turn on/off background music by clicking the music button on the top left corner of the application. This option is presented throughout the application

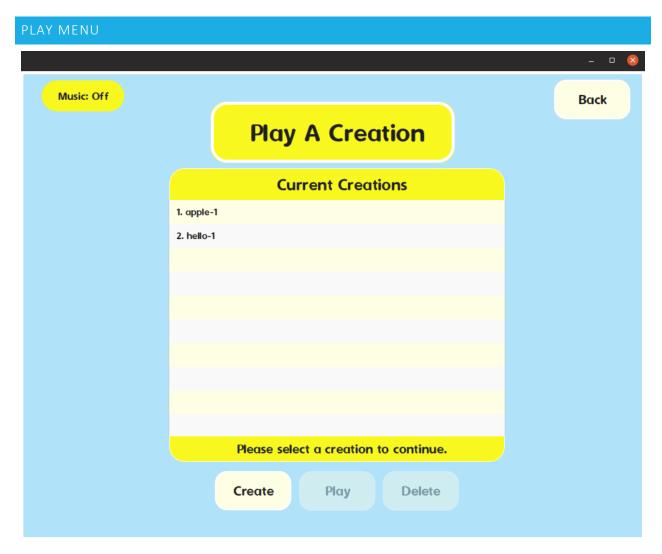


Figure 2: Creation menu

The creation menu is shown when the user selects the creations option on the main menu (Figure 1).

This screen will allow the user to manage their repertoire of creations.

On right hand side of this screen, the user is presented with the list of all current creations

This screen will allow the user to select from two main options:

- Create: This option opens a new screen and guides the user through creating a new creation.
- Back: This option brings the user back to the main menu (Figure 1).

If the user selects a creation, by clicking, two further options are enabled:

- Play: This option will open a new screen that plays the currently selected creation with the applications built in player (figure 10).
- Delete: This option will allow the user to delete the selected creation. The user will be shown a confirmation message and upon confirmation the selected creation will be deleted.

NEW CREATION MENU

Figure 3: New creation - Wikipedia search

The creation screen is shown when the user selects the create option on the main menu (Figure 1).

This screen will guide the user through the process of creating a new creation.

The process of creating a new creation begins when the user is prompted to enter a search term for the creation. When a term is entered the the option to submit the term will be enabled.

Once the user submits the term, a progress bar will be displayed as the application is retriving the search results from the wikipedia

If the search is unsuccessful, due to the user inputting a term which does not exist, an error alert will be shown prompting the user to enter a valid search term.

AUDIO CREATION: AUDIO CHUNK SAVING Music: Off **Cancel Creation New Creation** Highlight text to create chunks Manage your current chunks An eel is any ray-finned fish belonging to the order Anguilliformes, No Chunks Found. which consists of four suborders, 20 families, 111 genera, and about 800 species. Eels undergo considerable development from the early larval stage to the eventual adult stage, and most are predators. The term "eel" is also used for some other eel-shaped fish, such as electric eels (genus Electrophorus), spiny eels (family Mastacembelidae), and deep-sea spiny eels (family Notacanthidae). These other clades, however, evolved their eel-like shapes independently from the true eels. Select Voice: Default Delete Move Up Move Down **Preview Chunk** Save Chunk **Confirm Chunks**

Figure 4: New creation - audio creation screen

The audio creation screen is shown to the user upon a successful search (figure 5)

On the left we have the search output that is separated with a new line for each sentence. Here the user can choose. If they wish, to edit the search output in any way they wish to.

On the right we have the list of audio files that the user has created.

The user is prompted highlight a section of the text that they wish to turn into an audio recording.

Once a valid section of text is highlighted, two options will be enabled:

- Preview chunk: This option will immediately playback the highlighted section of text as audio.
- Save chunk: This option will save the highlighted section of text as an audio file. This file will be displayed on the list of audio files.

The user can also choose to alter the voice of the audio file by using the dropdown menu. The voices supported are: Default computer voice, NZ-Man, and NZ-Woman

AUDIO CREATION: AUDIO CHUNK MANAGEMENT Music: Off **Cancel Creation New Creation** Highlight text to create chunks Manage your current chunks An eel is any ray-finned fish belonging to the order Anguilliformes, m-"eel"-is-also-used-1 which consists of four suborders, 20 families, 111 genera, and about ny-eels-(family-Mastacembelidae),-and-1 800 species. Eels undergo considerable development from the early larval stage to the eventual adult stage, and most are predators. The term "eel" is also used for some other eel-shaped fish, such as electric eels (genus Electrophorus), spiny eels (family Mastacembelidae), and deep-sea spiny eels (family Notacanthidae). These other clades, however, evolved their eel-like shapes independently from the true eels. Select Voice: Default Delete Move Up Move Down **Preview Chunk** Save Chunk Confirm Chunks

Figure 5: New creation - Audio creation screen managing audio files

Saved audio output is displayed on the list of audio files on the right.

When at least one audio file is saved and the user selects an audio file, two options will be enabled:

- Confirm chunks: This option will send all current audio files in the list of audio files to be merged into an output audio file for the creation. The audio of the creation will preserve the arrangement of the audio files by the user.
- Delete: This option will allow the user to delete the selected audio file.

If there are at least two valid audio files, Upon selection of an audio file two further options will be enabled that allow the user to rearrange the audio files:

- Move up: This option will move the selected audio file up one position in the list of audio files.
- Move down: This option will move the selected audio file down one position in the list of audio files.

IMAGE SELECTION Music: Off **Cancel Creation Image Selection** blue-1 Submit √ Image 1 √ Image 2 Image 3 Image 4 Image 5 Image 6 Image 7 Image 8 Image 9 Image 10

Figure 6: New creation - Image selection screen

The image selection screen is shown to the user after the creation audio file is completed.

Ten images will be displayed to the user after the downloading is completed. Next to each image is a checkbox that corresponds to the image. The user can tick any checkbox to indicate which images they would like to be used for the creation. (By default, the first image is selected)

Once the user is satisfied with the selected images a creation name for the creation must be given. This name must be unique and only contain valid letters (a to z)(A to Z)(0 to 9)(- or _). This creation name is the name that will be displayed on the list of creations screen (figure 2).

By default, the name will be placed as the search term. If this search term already corresponds to an existing creation the search term will be serialized (beginning from searchterm1, searchterm2...) for a valid creation name.

If the user enters a nonvalid creation name an alert will be shown prompting the user to enter a valid creation name.

CREATION COMPLETION

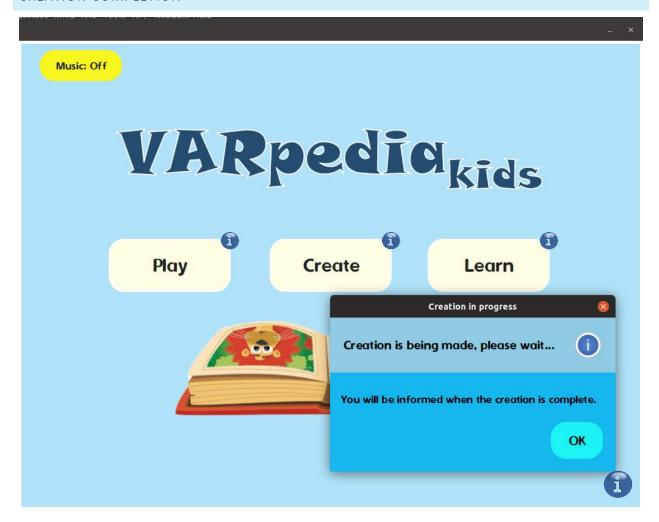


Figure 7: Creation Completion

Once the creation is finished, the user is retuned to the main menu. (figure 1) with an information alert indicating that once the creation is finished a second alert will be shown.

If the user is on the Play menu as the creation is completed, the list of creations will automatically refresh.

SUMMARY OF CREATION STEPS.

The create menu allows the user to create a new creation. The create menu follows the following steps:

- 1) Enter a search term to be searched, then click the Search button.
- 2) Select the text to be used for the creation.
 - i) Edit the text output if needed.
 - ii) Highlight the text (Warning issue for over 30 words).
 - iii) Click on the Voices drop down, next to Select a voice. To select the voice of the speaker. There are three options, default, NZ-Male and NZ-Female.
 - iv) Preview or save the selected text with the selected voice.
 - v) Steps 2a, 2b, 2c can be repeated, to add more text to the creation.
 - vi) The currently saved texts can be managed. First click on a saved text. The option to Move up and down or delete is presented.
 - vii) Click Submit Chunks button, when the audio is satisfactory.
- 3) Enter a valid creation name for the new creation if the predefined valid creation name is unsatisfactory. Valid creation names are non-empty, and only contain alphabetical characters and numerical digits
- 4) Select images for the video of the creation. At least one image must be selected.

Once the creation is complete you will be notified of its completion.

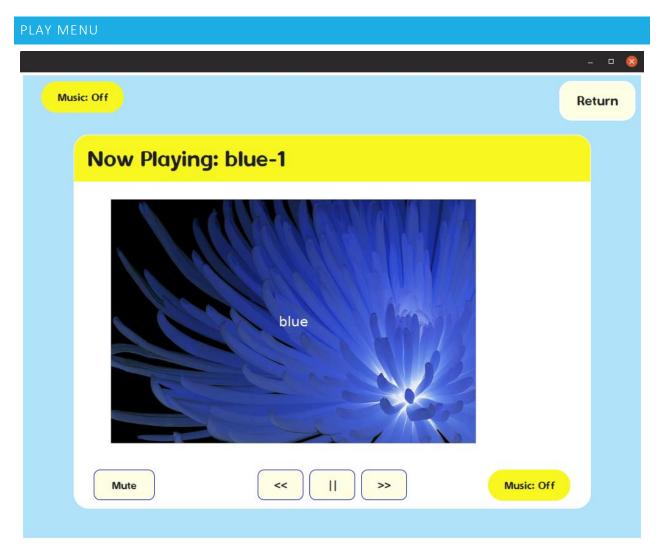


Figure 8: Video Player

The Player screen is shown when the user selects the play option on the main menu (Figure 1).

the creation that the user has selected will immediately begin playing.

The applications built in player offers the user four options:

- Mute: This option will mute the audio of the creation video that is being played.
- Pause/play: This option will pause or play the creation video that is being played.
- Skip forward: This option will set the video time to three seconds more than the current video time.
- Skip backward: This option will set the video time to three seconds less than the current video time.

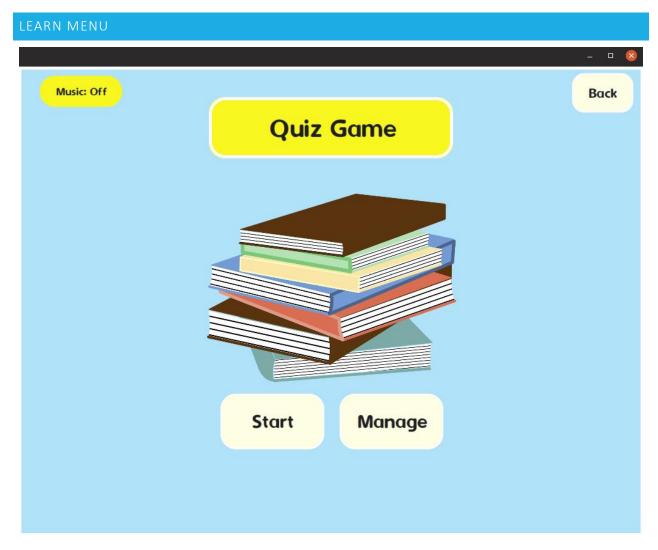


Figure 9: Quiz start screen

The Learn menu screen is shown when the user selects the Learn option on the main menu (Figure 1).

Here the user is able to test their learning progress through a quiz game. The quiz game will play a random quiz video that the user must correctly identify.

A quiz video is similar to a creation video but has the search term removed.

The learn menu screen will allow the user to select from two main options:

- Start: This option will begin the quiz game. (figure 11)
- Manage: This option will present all current quiz videos for the user to manage (Figure 10).

Music: Off Quiz Game Current Quiz Videos 1. apple 2. blue 3. chair 4. eel 5. hello Delete

Figure 10: Managing quiz screen

The manage quiz screen is shown when the user selects the manage option on the learn menu (figure 10).

The user is presented with the list of all current quiz videos. Here the user is able to manage their repository of quiz videos.

The manage quiz screen presents one option to the user:

• Delete: This option will allow the user to delete the selected quiz video. The user will be shown a confirmation message and upon confirmation the selected quiz video will be deleted.

The user may return to the Learn menu screen at any time by pressing the return button on the top right of the screen.

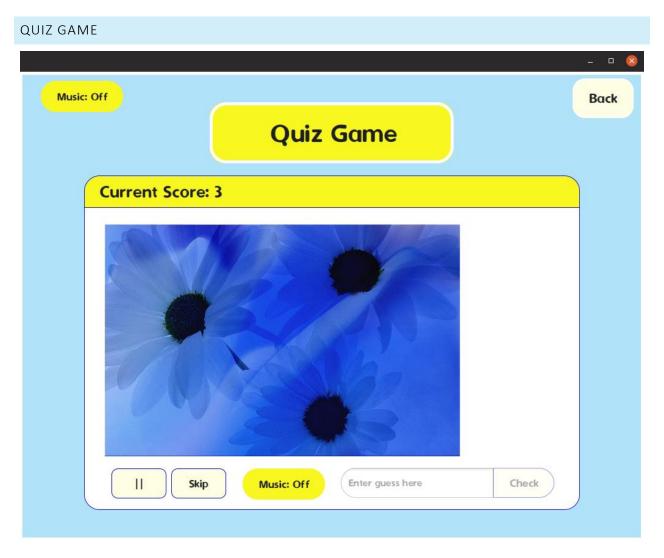


Figure 11: Quiz game screen

When the quiz begins, the user will be played a random quiz video on loop. The user must correctly enter the search term that corresponds to the video. The users current score is displayed on top of the quiz

Once the quiz begins the user is presented with three options:

- Skip: This option will skip the current quiz video and play another random quiz video.
- Pause: This option will pause the current quiz video.
- Check: This option will check the term answer of the user.

If the answer is incorrect, the user will be informed the answer is incorrect.

If the answer is correct, the user will be congratulated, and another random quiz video will be played. A correct answer will increase the score by one point. An incorrect answer will not affect the score

The user may quit the quiz and return to the to the main menu at any time by pressing the back button on the top right of the screen.