**C868 – Software Capstone Project Summary**

**Task 2 – Section C.1**

**User and Administrator Guide**

|  |  |
| --- | --- |
| **Capstone Proposal Project Name:** | http://www.idevnews.com/views/images/uploads/general/wgu_logo.png  Text to Phoneme Converter |
| **Student Name:** | Edward Sawyer |

**Table of Contents**

Contents

[Table of Contents 2](#_Toc42862443)

[User Guide 4](#_Toc42862444)

[Introduction 4](#_Toc42862445)

[Installation 5](#_Toc42862446)

[Logging in 7](#_Toc42862447)

[Generating an Image Sequence 8](#_Toc42862448)

[Exporting the Image Sequence 10](#_Toc42862449)

[Data Entry 11](#_Toc42862450)

[Finding a Word 11](#_Toc42862451)

[Adding a New Word 12](#_Toc42862452)

[Deleting a Word 13](#_Toc42862453)

[Editing a Word and Symbols 14](#_Toc42862454)

[Reference List 15](#_Toc42862455)

[Reference Images 15](#_Toc42862456)

[Reports 16](#_Toc42862457)

[Generating Reports 16](#_Toc42862458)

[Generating Queries 16](#_Toc42862459)

[Search 17](#_Toc42862460)

[Wild-Card Search 17](#_Toc42862461)

[Administrator’s Guide 18](#_Toc42862462)

[Connecting to Database using MySQL Workbench. 18](#_Toc42862463)

[Adding new Users 19](#_Toc42862464)

[Adding new Mouth-Pair-Sets. 20](#_Toc42862465)

# User Guide

## Introduction

This user guide is intended to aid in the installation, login, and initial use processes. First the application will be extracted, with its resource folder, to the destination computer. After execution, the application will prompt for user credentials to log in. Next, a line of text can be entered and converted to phonemic symbols. Finally, this sequence of symbols can be exported as an image sequence of visual phonemes for use in an animation workflow.

The administrator guide will guide the process of connecting to and updating the database. The database is hosted on an AWS free-tier instance. This guide uses the MySQL workbench to connect to and interact with the database. MySQL is free to install and use. Once a connection to the database has been established, new users and new mouth-pairs can be added to their respective tables.

## Installation

##### Extract the Application Zip File (If Applicable) to a destination of your choice. Within the Zip file will be the application Jar file, and a ‘resources’ folder. These two items are all that are needed to run the application. The ‘resources’ folder needs to be in the same directory as the application Jar file.

##### 

##### 

##### Execute the Jar file. This is generally done by double clicking the icon, but may also be run from the command line or by right clicking and selecting ‘Open’. On some systems an administrator password may be needed to launch the executable.

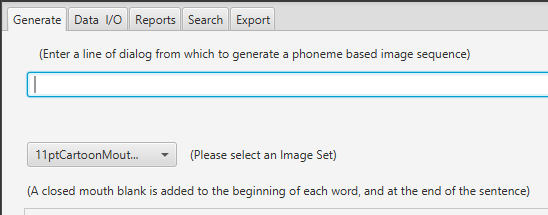
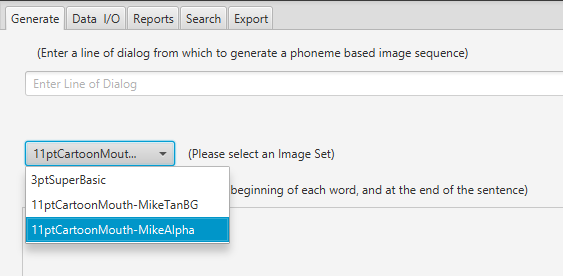
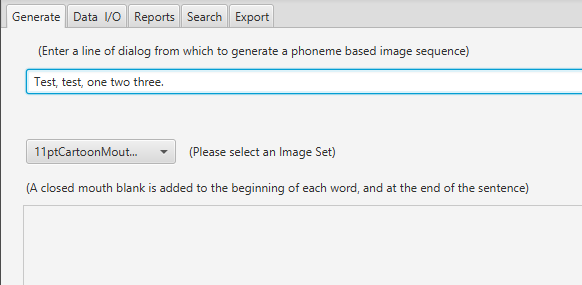
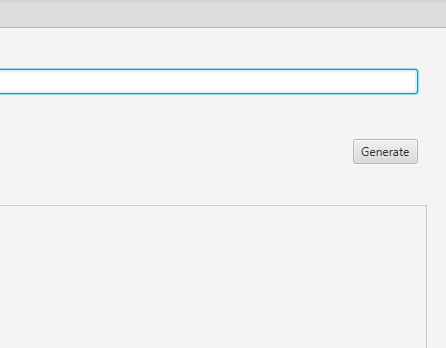
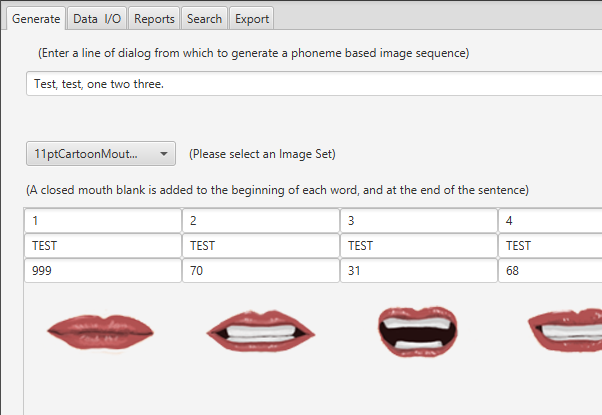
##### 

## Logging in

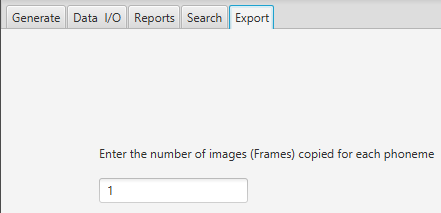
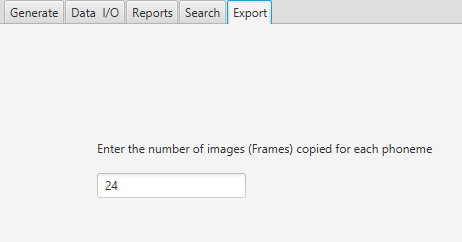
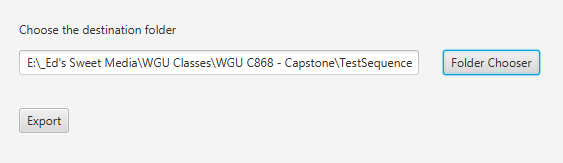
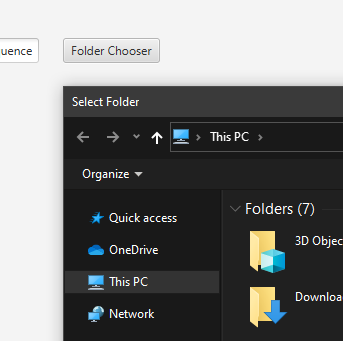
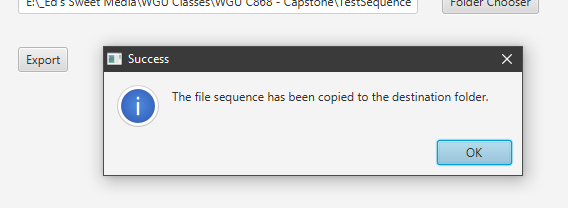
##### After the application has launched, the first visible window will be the login view. Enter your credentials, then press the ‘Login’ button. For testing purposes, you may use the credentials - Username: **test**, and Password: **test**, or Username: **admin**, Password: **admin** to login. Also, for evaluation purposes, a ‘Bypass Login’ button has been temporarily added.

##### 

## Generating an Image Sequence

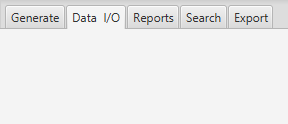
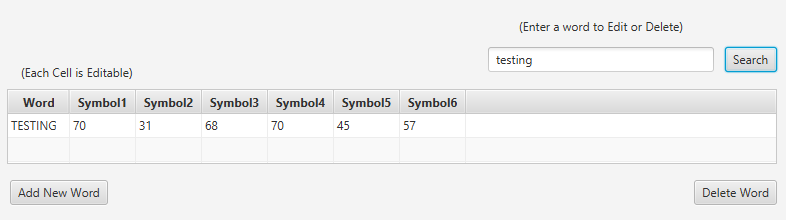
1. Click on the Generate tab at the top of the application if it is not already at the forefront.
   1. 
2. Select an Image Set with the pull-down selection.
   1. 
3. Enter in a line of dialog into the text field.
   1. 
4. Press the Generate Button, on the right side of the window.
   1. 
5. The sequence will be generated and displayed in the side scrolling pane. The sequence number, the current word, the symbol number, and the desired phoneme image will be displayed.
   1. 

## Exporting the Image Sequence

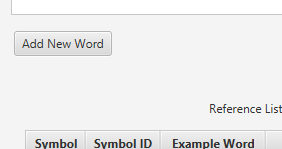
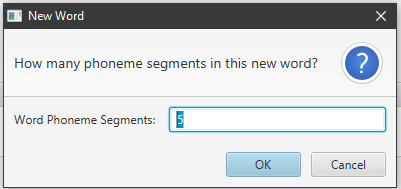
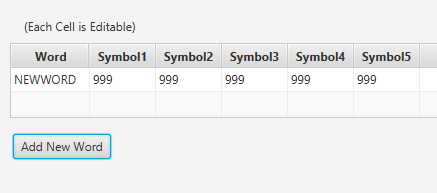
1. Click on the Export tab.
   1. 
2. Enter the number of images to copy for each generated symbol, in whole numbers. This is akin to a frame rate, and overcomes the limitations in some video editor’s time stretching capabilities.
   1. 
3. Enter a destination folder by either typing it into the text field, or clicking the ‘Folder Chooser’ button.
   1. 
   2. 
4. Punch that ‘Export’ button with great excitement!! The images will then be copied to the chosen folder as a .png sequence.
   1. 

## Data Entry

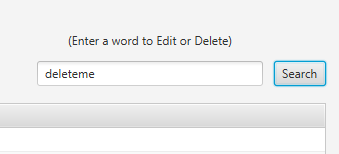
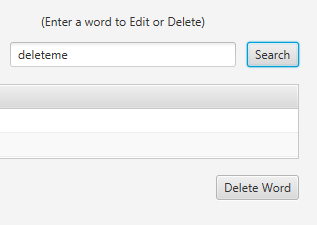
### Finding a Word

1. Click on the ‘Data I/O’ tab on the navigation tabs at the top of the application window.
   1. 
2. Enter a single word into the search text field, then press the ‘Search’ Button. A single word, if found, will be returned
   1. 

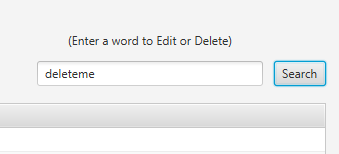
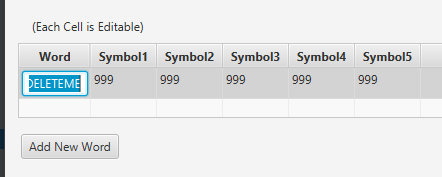
### Adding a New Word

1. To add a new word, first click on the ‘Add New Word’ button. A Dialog will pop up.
   1. 
   2. 
2. Enter in the desired number of phoneme segments for the new word, and press ‘OK’. A new editable word with the corresponding number of columns is created. The default name for the new word is ‘NEWWORD’, which can be edited directly in the data cells.
   1. 

### Deleting a Word

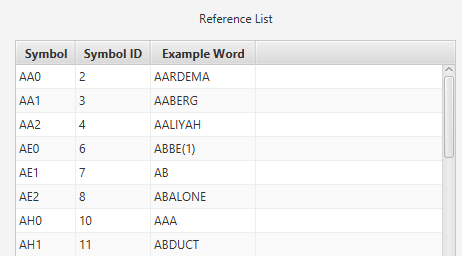
1. To delete a word, first enter the word name in the search text field, and press search.
   1. 
2. If the word is found, press the delete word button, and the word will be removed from the database.
   1. 

### Editing a Word and Symbols

1. First, search for an existing word in the database, by entering the word into the search text field, and pressing the ‘Search’ button.
   1. 
2. To Edit a word name, or any of its symbols, simply double click the desired cell, edit the data, and press enter. The data will immediately be updated in the database.
   1. 

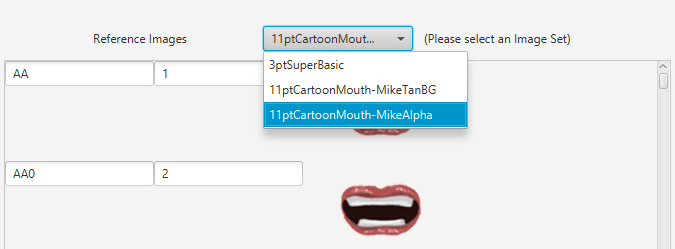
### Reference List

A reference list has been provided containing a list of Symbols, their Id, and an example word usage. This is not editable and is provided purely as an aid.



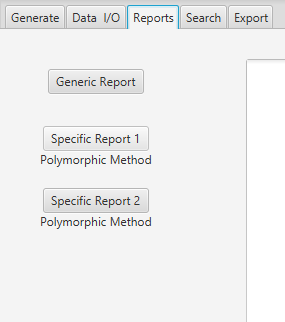
### Reference Images

Reference images for each image set can be generated. Simply choose a set from the Pull Down Combo Box. These sets are not editable with the user interface. They are provided purely as an aid.

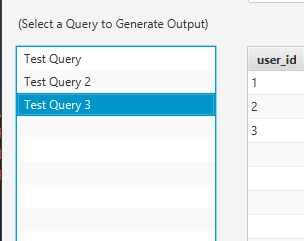


## Reports

### Generating Reports

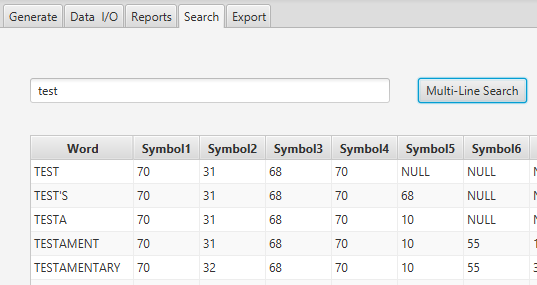
1. Click on any of the available reports buttons near the top left of the window to generate a report. The currently available buttons demonstrate the usage of polymorphism.
   1. 

### Generating Queries

1. To pull a pre-loaded query, simple select any of the available titles in the query list. The generated data is not editable from the user interface.
   1. 

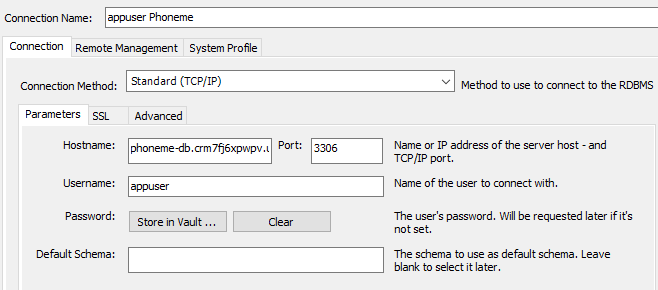
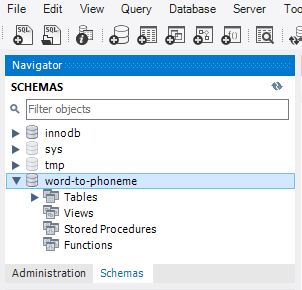
## Search

### Wild-Card Search

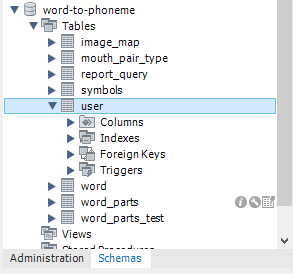
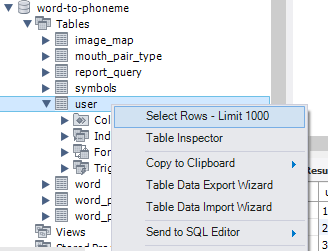
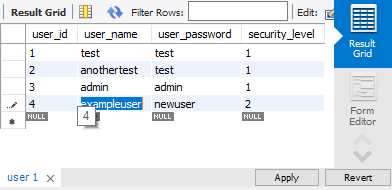
1. The search term text field allows for the entry of a word and will search for similar words automatically. Simple enter a search term and press the ‘Multi-Line Search’ button.
   1. 

# Administrator’s Guide

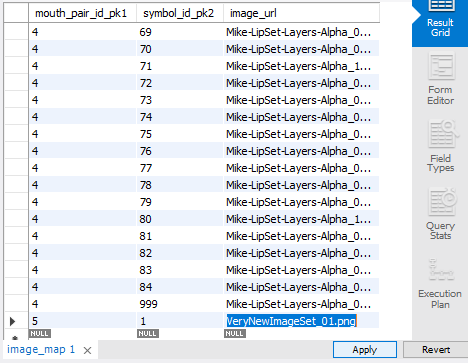
## Connecting to Database using MySQL Workbench.

1. Launch MySQL Workbench, and click on the ‘Home’ tab at the top. You will then click the plus symbol next to the label “MySQL Connections”.
   1. 
2. The ‘Setup New Connection’ dialog will appear. Enter the Hostname as   
   “phoneme-db.crm7fj6xpwpv.us-west-1.rds.amazonaws.com”.   
   The Port will remain as 3306.
3. Enter the Username as “appuser” and the Password as “testPassword123”. To enter the password, click the ‘Store in Vault…’ button.
   1. 
4. Once connected, select the ‘word-to-phoneme’ database instance in the navigator panel. Select the ‘Schemas’ tab at the bottom of the panel, then clock on ‘word-to-phoneme’.
   1. 

## Adding new Users

1. With a connection to AWS established, navigate to the ‘user’ table inside the ‘word-to-phoneme’ database.
   1. 
2. Right click on the user table, and select ‘Select Rows Limit 1000’. This will pull a query of the user table, displaying all current users with credentials for the application.
   1. 
3. To add a new user, simply fill in the next row in the table returned by the query. After filling in the new user’s credentials, click the ‘Apply’ button in the bottom right corner. This will create and send the correct insert or update queries to the database.
   1. 

## Adding new Mouth-Pair-Sets.

1. Once a new set of Mouth Images is available, the set can be added to the application as an output option.
2. First, copy the image set into the resources/image-sets directory, along with all the other PNG mouth-image-sets.
3. Next, map all of the new images to one of the 84 symbol ID’s. This can best be done in a spreadsheet application that can export .csv files. Google Docs works well. The .csv file can be imported into the table via MySQL Workbench. These can also be inserted directly within the MySQL workbench.
   1. 
4. Adding a new Image Set
5. Within MySQL workbench, please select the “mouth\_pair\_type” table. To add/enable a new image set, simply add a new row to the table. Once this row is saved to the database, the new Image Set will be available as an option in the Generate tab.
   1. 