**VerticaPy Lesson Series**

Audio Editing using Audacity

# Introduction

This document covers the basics of audio recording and editing to create content for the VerticaPy Lesson Series.

## Step 0 - Installing Audacity and FFmpeg library.

First download the Audacity installer on your system from this [link](https://www.audacityteam.org/download/).

After downloading the installer, finish the installation.

Next, download the FFmpeg installer from this [link](https://lame.buanzo.org/ffmpeg64audacity.php).

Left-click the link **FFmpeg v2.2.2 INSTALLER (.EXE)** and proceed with downloading and installing the library.

Note: FFmpeg library allows you to work with videos and separate audio from them. For more information or debugging any issue please look into this: <https://manual.audacityteam.org/man/installing_ffmpeg_for_windows.html>

## Step 1 – Recording Audio

You can either record audio directly from Audacity using your microphone or record a video which has voice. The former option is more suitable for narrations where the video is made separately, and it consists of graphics/slides. On the other hand, if you are recording a video then you will have to copy the video file in your computer and open it using the Audacity app.

## Step 2 – Remove Noise

If you believe there is some background noise during your recording, then you can easily remove that in audacity. First select a sample portion of the audio that has the noise, then click Effects. (Image below)

Graphical user interface, application, table, Excel

Description automatically generated

Figure 1: A sample containing background noise is selected. Then we click Effect at the top ribbon.

Next, click on noise reduction. In the small window that pops up, click on “Get noise profile”. This tells the software what kind of noise to look for. Finally, select the entire audio by cicking or pressing CTRL + A. Then again go to Effect> Noise Reduction. This time click OK at the bottom, and the noise from the entire audio will be taken out.

You can use the default values for Noise Reduction level, Sensitivity, and Frequency Smoothing. Or you can also tweak these values and preview the outcome before finalizing.

## Step 3 – Normalize

When you join a few clips together sometimes one has a higher volume than the other. In order to make the complete audio uniform, you can select **all the audio clips** combined and then click Effect>Normalize. I do not recommend changing the default options.

## Step 4 – Export

The last step is to just export the audio as a MP3/WAV file so that it can be used in the video editing software. Simply click on File > Export as MP3.