# 3

### **Basics of Audio and Video Editing**

#### Let us learn

- Audio editing basics
- Applications of audio editing
- Recording and exporting audio files
- Editing audio files
- Adding various effects on audio files
- Basics of video editing
- Types of video editing
- Principles of Video Editing
- Creating Slides shows of pictures
- Adding effects, transitions and titles to video

#### **3.1. Introduction**

Audio editing is a process to edit, shorten, or shift a piece of music or spoken audio, increase or decrease speed and volume or to create loop of certain portion of audio. Goal is to make it ideal for listening more pleasurable.

Audio editing is a vast field. Following are some of the areas of audio editing :

- Radio Technician
- Sound Engineer
- DJ, Music Producer
- Film/Television Sound Recording
- Field Sound Engineer etc.

There are various audio editing

softwares that provide different types of functionalists and support various operations.

Some of the examples of the free and open-source audio editing software are Audacity, Traverso DAW, Ardour, Mixxx, Qtractor and various other commercial Software are also available.

We are using Audacity software in this chapter to demonstrate audio editing operations.

#### **3.2 Introduction about Audacity**

Roger B. Dannenberg, Professor of Computer Science, Art & Music at Carnegie Mellon University, started the research project Audacity, along with his graduate student Dominic Mazzoni. Today Audacity is one of the best audio editing software. Since it is Free and Open-Source Software, the source code of the Software is available to all. This open nature motivates people to donate their time to fix bugs and make extensions.

#### **Features of Audacity**

Audacity allows you to record, export and import various sound file formats, and it has multiple plug-ins which enable us to extend the functionality of Audacity. We can apply lots of effects to sound and even generate and mix sounds.

#### Applications of audio editing skills

- Audio/Radio advertisement
- Documentary films need audio editing to synchronize with the video
- Creating Podcasts
- Recording speeches
- Creating sound stories
- Record sound for slides presentations
- Editing or compiling songs together

#### 🔀 Do it yourself

Install any Open Source mobile podcast app such as AntennaPod.

#### **3.3 Activities in audio editing :** Let's see some of the activities involved in the audio editing

- Remove unwanted sound like breaths, cough, ringing of the phone etc.
- Remove repeated dialogues.
- Add music to the beginning or at the end of video clips.
- Stretch/shorten audio and sound effects according to the length of the visual.
- Slice together audio recorded at different sittings.
- Sync up different musical instruments so that they all can sound on the beat.
- Loop, slice and edit beats.

#### Recording a good quality audio is an art. Some of the tips to record a good quality sound are as follows-

**1.** A good quality external microphone will give us an excellent quality of sound

- 2. How we place our microphone while recording, affects the sound quality. It must be steady and fixed at some position while recording the audio.
- **3.** Recording 10 seconds of silence, in the beginning, will give us room ambient noise input. This recorded silence then can be used later on in the audio editing software to remove the noise from the entire audio clip.
- 4. Recorded audio quality must be listened using headphones to get the precise sound. We can also use studio monitor speakers for professional audio productions.
- 5. Ensure to get the minimum or zero ambient noise.

#### 🜺 Do it yourself

*Install Audacity on your computer* To install on Ubuntu using the terminal \$ sudo apt install audacity

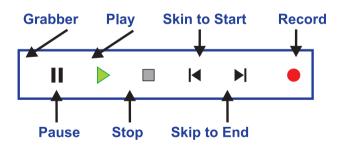


Fig. 3.1 : Recording Panel

**Note :** You may need to select the default recording and playback devices for your system. You can select devices from , Edit  $\rightarrow$  Preferences  $\rightarrow$  Devices

#### To start recording an audio :

- **1.** Click on the Record Button in the Control Tool bar, as shown in the previous figure 3.1.
- 2. Start your speech or message.
- **3.** Press the Pause Button in the Control Tool bar if you wish to pause your recording at any point press it again to resume recording.
- **4.** Press the Stop Button in the Control Tool bar when you have finished your recording.

#### To listen to your recording :

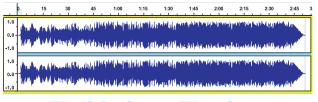
- 1. Click on the Play Button in the Control Tool bar as shown in figure 3.1.
- 2. Click on the Stop Button or Pause Button in the Control Tool bar to stop or pause the playback.
- 3. We can adjust the volume (at which you listen to our recording) using the Playback Volume slider in the Mixer Tool bar.

#### **3.4 Import Audio Files into Audacity**

First launch Audacity, then import an audio file by selecting File  $\rightarrow$  Import  $\rightarrow$  Audio (Ctrl + Shift + I) Audacity can import many common audio file formats, including WAV, AIFF, and MP3.

If the optional FFmpeg library is installed, a larger range of formats, including WMA and the audio content of most video files, can be imported.

A quicker method is to just drag and drop the file.



#### Fig. 3.2 : Stereo Waveform

Figure 3.2 shows a stereo waveform. The left channel is displayed in the top half of the track and the right channel in the bottom half. The height of the wave indicates the sound level.

### **3.5 Export audio clips to various formats**

Audacity allows us to export your edited work into various following formats AIFF, WAV 16 and 32 bit, Mp3 files, Ogg files etc. We can set following various quality parameters as shown in following figure.



#### **Fig. 3.3 : Export Audio Options**

#### A) Bit Rate Mode

- **1. Preset :** It contains settings recommended by the developers for exporting audio files.
  - Insane : It is the best possible encoding quality. This preset has a constant bit-rate of 320 kbps, which is equivalent to 2.4 MB per minute
  - **Extreme :** Extremely high quality.
  - **Standard :** Very good quality encoding.
  - **Medium :** Good sound quality suitable for casual listening or portable devices.

- 2. Variable : This mode continuously varies the bit rate used according to the complexity of the sound, in an attempt to maintain the quality of the recording at a consistent level.
- **3. Constant :** This sets a constant bit rate for the encoding, regardless of its complexity. Among the four bit rate modes, this usually gives the worst, least consistent quality for a given file size, but that size itself is completely predictable.
- 4. Average : It sets a known, average bit rate for the file, but within this average permits some fluctuations in bit rate to reflect the relative difficulty of encoding the file.

#### **B)** Quality

This list allows us to select the bit rate in kbps (kilobits per second) for encoding your file. A higher bit rate always gives better quality but at the expense of a larger file size and vice versa.

Variable Speed, Choice of speed is available when using variable bit rate encoding. It determines the speed and bit allocation routines of the encoding algorithm.

#### **C) Channel Mode**

These controls determine how two channels of a stereo MP3 are encoded or if exported, MP3 should always be **mono**.

In monaural sound one single channel is used. It can be reproduced through several speakers, but all speakers are still reproducing the same copy of the signal.

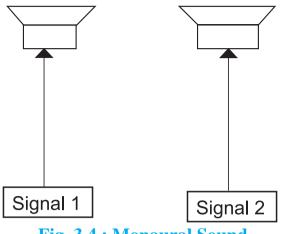


Fig. 3.4 : Monaural Sound

In stereophonic sound more channels are used (typically two). We can use two different channels and make one channel feed one speaker and the second channel feed a second speaker (which is the most common stereo setup). This is used to create directionality, perspective and space.

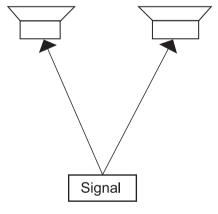


Fig. 3.5 : Stereophonic Sound

Once we set the parameters for exporting the audio we will be prompted to edit the meta data tags which will be nothing but the information associated with the audio files being exported. This information will be useful in the audio or music player.

 $\label{eq:export_to_Multiple} \mbox{ (Ctrl + Shift + L )} \\ allows \mbox{ us to do multiple exports from}$ 

Audacity with one command.

Export either multiple files based on the multiple tracks in the project, or based on the labels in a single audio track. A great time saver for splitting up long recordings into separate CD tracks, or archiving multiple working tracks.

	Edit Metadata Tags	×										
Use arrow keys (or Enter key after editing) to navigate fields.												
Tag	Value											
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Track number		]										
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#### Fig. 3.6 : Audio file meta tags

#### 🚵 Do it yourself

- Record an interview of a person in any field, prepare questions suppose to ask. Select Audio recording tools like Ex. Microphone, Mobile Phone, record using audacity on your computer.
- 2. Export audio into various formats with different parameters set and find out the differences in the audio quality.

#### **3.6 Editing an Existing Audio File**

We will import an existing sound file, remove at least 10 seconds of this file, apply a 1-second fade-out at the end, export the results, and play it.

#### **Steps to editing** :

- **1.** Keep ready audio file to edit.
- Launch Audacity, then import an audio file by selecting File → Import → Audio.
- 3. We will get the waveform in the main window. If the audio is a stereo waveform, then the left channel is displayed in the top shows half of the track and the right channel in the bottom, half of the track.
- 4. Listen to the imported audio.

#### **Using Keyboard for selection :**

- You can select audio entirely using the left arrow, right arrow and other keys.
- Press Left or Right to move the cursor left or right respectively in the waveform.
- Hold down Shift while pressing Left or Right to create then extend a selection leftwards or rightwards respectively.
- Hold down Shift and Ctrl while pressing Left or Right to contract an existing selection leftwards or rightwards respectively.

We edit audio waveforms in Audacity in the same way as we would edit text in a word-processing document. When we are editing text we first select the text, we want to change and then choose operations we want to do with it. We might want to cut or copy the text, delete it, paste new text in its place, or change it to bold. We do the same thing in Audacity: first zoom and select the range of audio we want to change, and then choose what we want to do with it.

### 

The above image shows Edit Toolbar with the Zoom buttons highlighted. These are Zoom In tool, and Zoom Out tool.

Once we select the audio for some duration we can press delete or use the cut tool.

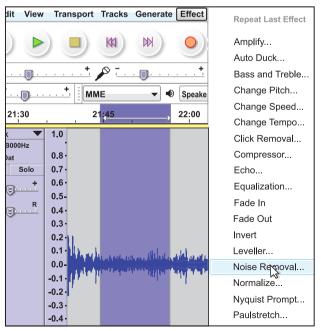
- Click on File → Export → Export Audio - the standard "Save" dialog for our operating system appears.
- Give the file a different name. Audacity always suggests a name for the file that is the same as the name of our Audacity project. It is always best to alter this so we do not confuse your exported file with our Audacity project.
- Choose a location to save the file in the usual manner.
- At the bottom of the Save dialog is a dropdown menu labeled "Format". From this menu choose "WAV (Microsoft) signed 16-bit PCM".
- There are no options for the WAV file format, so there is no need to click the Options button.
- Click the Save button to complete the export of our project to a WAV file.
- To zoom in to get a closer look at the waveform, first choose the Selection Tool IBeam.png, then click near the

point we are interested in, then click the Zoom In button.

If we make a mistake, we can always click on Edit →Undo. Audacity has unlimited Undo and Redo. We can undo our editing actions all the way back to when we imported the file. We can also Redo actions that we have undone.

# **3.7 Removing noise from the audio recording.**

- **1.** Select the "silent" section of our audio, where it's just a noise.
- 2. Go to the Effects menu and click Noise Removal.
- 3. Click Get Noise Profile.
- **4.** Select all of the audio from which we want that background noise to be removed.
- 5. Go to the Effects menu and click Noise Removal as shown in the figure 3.7.



**Fig. 3.7 : Sound Effects** 

- **6.** Adjust the settings if necessary (defaults are fine) and click OK.
- 7. Listen to ensure our audio doesn't sound like it's underwater.

Noise Removal												
Noise Removal by Dominic Mazzoni												
Step 1												
Select a few seconds of just noise so Audacity knows what to filter out, then click Get Noise Profile:												
Get Noise Profile												
Step 2	Step 2											
Select all of the audio you want filtered, choose how much noise you want filtered out, and then click 'OK' to remove noise.												
Noise reduction (dB):	17											
Sensitivity (dB):	-0.49		_									
Frequency smoothing (Hz):	150	-0										
Attack/decay time (secs):	0.15	-0	_									
Noise:	© Remove	◎ Isolate										
Preview		OK Canc	el									

Fig. 3.8 : Noise Removal Options

#### 3.8 Effects, Generators and Analyzers :

- An Effect changes the audio in some way like artificially created or enhanced sound
- A Generator creates new audio, either in an existing track or in a new track.
- An Analyze tool performs analysis on a selection of audio - it does not change the audio and does not create new audio.

# You can use the following operations on the audio using various effects-

- Make the sound louder or quieter, which is also called as increasing or decreasing gain of sound.
- Fade a section in or out.

- Change the quality of the sound.
- Repair damaged audio.
- To make the sound play faster, slower, lower pitched or higher pitched.
- Add reverberation or echo.
- Remove vocals.
- Manipulate Audio.

In order to apply effect to the portion of sound, select it and apply the filter with its settings.

# Some of the useful effects which we can use are as follows-

- **1. Amplify :** Increases or decreases the volume of the audio we have selected.
- 2. Normalize : Use the Normalize effect to set the maximum amplitude of a track, equalize the amplitudes of the left and right channels of a stereo track and optionally remove any DC offset from the track.
- **3.** Fade In : Applies a linear fade-in to the selected audio.
- **4.** Fade Out : Applies a linear fade-out to the selected audio.
- 5. Bass and Treble : Increases or decreases the lower frequencies and higher frequencies of your audio independently; behaves just like the bass and treble controls on a stereo system.
- **6. Equalization :** Adjusts the volume levels of particular frequencies like treble/bass.
- 7. Noise Reduction : This effect is ideal

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for reducing constant background noise such as fans, tape noise, or hums. It will not work very well for removing talking or music in the background.

- **8.** Change Pitch : Change the pitch of a selection without changing its tempo.
- **9.** Change Speed : Change the speed of a selection, also changing its pitch.
- **10. Echo :** You can make sound like echo. Echo is a reflection of sound that arrives at the listener with a delay after the direct sound.

#### 👌 Do it yourself

Demonstrate various effects using an audio clip, export all audio files with all these various effects applied.

#### **3.9 Video Editing**

Video editing is the process of manipulating raw videos, clips, images, sounds to create a new movie or new video.

### Videos editing includes the following activities-

- Rearranging, adding and removing sections of video clips or audio clips.
- Applying colour correction, filters and other enhancements.
- Creating transitions between clips.
- Removing unwanted footage or part of the video, or selecting the best shot.
- Creating flow in the story with a

sequence of the video shots and music and narration.

- Add effects, graphics, music, etc.
- Change the style, pace or add effects to the video.
- Adding titles in the video.

A video editing software allows us to do all the tasks mentioned above easily. It is used in the post production for video production. For the demonstration of all video editing activities, we will be using Kdenlive video editor.

#### **Different Types of Video Editing**

There are three types of editing video techniques as follows.

- 1. Linear Editing : This is an old technique and now it is not being used. This technique uses several video tapes in sequence and a single new video will be created.
- 2. Non-Linear : Non-linear editing enables direct access to any video frame in a digital video clip, without having to play or go through adjacent footage to reach it. In this technique, all the videos are arranged in a timeline using computer software like Kdenlive and you can edit any part of the video. Non-Linear editing is also called as Non-destructive editing. It is a form of audio, video and image editing in which the original content is not modified in the course of editing.
- **3.** Live Editing : Multiple camera input is given to the mixer and then the live coverage of an event like sports

broadcasts are provided here editing happens in real time.

In this chapter we will be learning Non-linear / Non-destructive editing.

#### **Video Editing Basics**

In this section, we will study some of the basic terms which beginners must know while doing performing video editing.

- Video Import : Refers to the loading of a video captured from digital camera to the computer.
- Video footage : Its a raw material of video imported from camera on which video editor will work.
- **Stock Footage :** It is also referred to as archieve footage, library pictures and file footage, used as template files.
- **Cut :** It is an instant change from one shot to the another. Example like we are watching one scene and immediately switched to another scene.
- Jump Cut / Cut in : It is a cut between the shots where the angle, position is same. Example, when a person is walking, instead of showing entire duration, jump cut is used to save time and also give impression that person has walked the entire distance.
- **Cutaway** : Within a sequence of scenes we put another shot, **cutaway** is used to show parallel actions.
- Video Frame : Frame is made up of the complete image, let's say for a

film we have 24 frames per second

- **Frame rate** is the frequency at which consecutive images called frames appear on a display.
- **Transition :** It is a change from one shot to the another we can use transitions like, dissolve where first shot gradually disappear and next become more visible.

#### **Video Recording Principles :**

You may need to know some of the basics of the video recording; these are very useful to keep your videos consistent and straight forward.

**Principle no 1 :** Do not cross 180 degree line. The 180-degree line describes the position of the camera and the object which you are shooting. You, as a videographer, must position the camera on one side only. Changing the line will change the position of the object in the video, and the audience may get confused. In order to avoid this we can have multiple camera input.

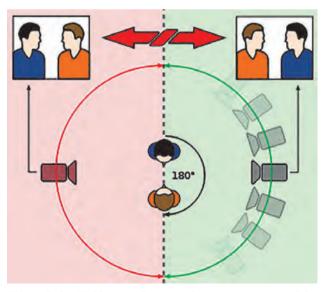


Fig. 3.9: Effect of crossing camera 180°

**Principle no 2 :** Join your videos in sequence and edit in the sequence. You must have a logical or ideal sequence of all the videos which you are editing, having a complete sequence will only give meaning to the entire video. Another sequence which matters is direction, movement, position, and even audio.

#### Pudovkin's five principles of editing

Pudovkin's techniques can be used in video editing to enhance the viewer's understanding of a story and to create a specific reaction from the audience.

- **1. Contrast :** It is the cutting between two different scenarios to highlight the difference between them.
- 2. Parallelism : In this we can connect two seemingly unrelated scenes by cutting between them and focusing on parallel features.
- **3. Symbolism :** In symbolism we move from our main scene to something which creates a symbolic connection for the audience.
- **4. Simultaneity** : It is the cutting between two simultaneous events as a way of driving up the suspense.
- 5. Leit motif : The 'reiteration of the theme' involves repeating a shot or a sequence at crucial moments as a sort of code.

#### 🖄 Do it yourself

Search for videos demonstrating Pudovkins principles.

#### **3.10 Video Editing with Kdenlive**

Kdenlive (KDe Non Linear Video Editor) is a free and open-source video editing software. Jason Wood started the Kdenlive project in 2002.

Using Kdenlive, you can make professional-quality videos it also gives you complete control over all aspects of video editing.

Kdenlive is readily available in the repositories of all popular Linux distributions and also for other desktop operating systems.

#### **Features of Kdenlive :**

- Free and Open-source video editor, Uses Qt and the KDE Frameworks libraries.
- Multi-track video editing to use and arrange several audio and video tracks.
- Multiple audio/video format, almost all formats are supported.
- Highly configurable interface to fit your workflow.
- Title for the videos can be created with inbuilt title editor.
- Quickly create slide shows from Pictures or Images using various transitions.
- Lots of effects and transitions.

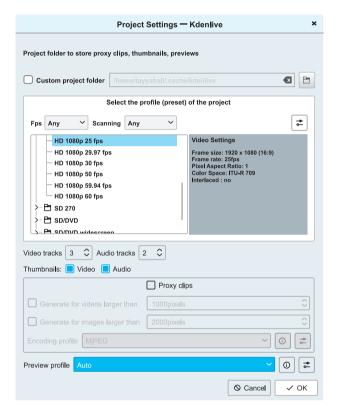
To install kdenlive in Ubuntu 18.04, you can use the following command in the terminal or use Ubuntu software center

#### \$ sudo apt install kdenlive

#### **Start and Save Project**

Launch the Kdenlive application, Click on the 'File' and 'New' to start a new project (Ctrl + N).

When we start the project following window will appear.



#### Fig. 3.10: Project Setting window

#### From these windows, we have to select:

- Where the project will be saved.
- Video quality setting, by default HD 1080p 25 fps can be selected.
- You can choose how many video and audio tracks you need, this can be changed later also.
- Proxy clips setting which is used to

improve the rendering and preview performance.

• Better the quality and fps (frames per second) more the slower rendering, Click OK with all the default settings; we will get the following environment.

#### **3.11 Kdenlive User Interface**

- 1. **Project Bin :** This is called project bin, here we can import all your audios, videos, images and titles which we want to include in the Project. We can even drag and drop files in this area.
- 2. Properties Windows : This window displays the properties effects and transitions which you can change and properties of the selected file from the timeline or project bin
- **3.** Transition and Effects : Using it we can choose the transitions and various effects for the videos.
- **4. Video preview window :** Here the preview of the video will be shown.
- 5. Time Line : This is the most significant part of the user interface, here you will keep all your videos, audios and pictures. It is also chronological display of an edited sequence in a non-linear editing system.

Now we know the basics of Kdenlive interface. In the next section let's create the slide show video using the images.

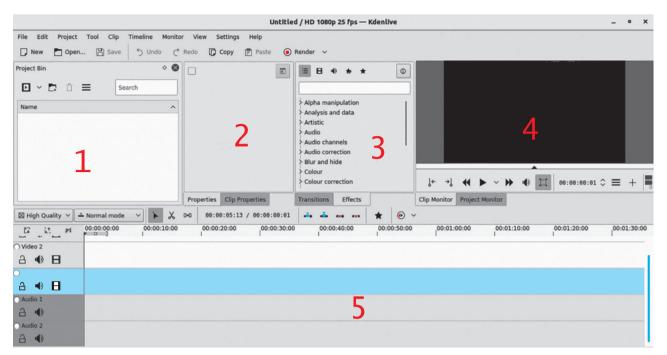


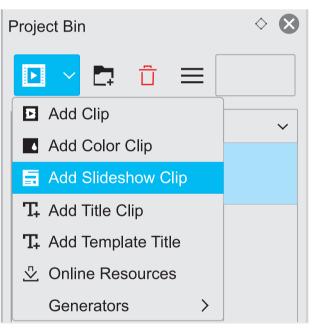
Fig. 3.11 : Kdenlive User Interface

#### 3.12 Slideshow Clip Activity

In this activity, we will learn to make a slide show and render the video, we often need to create a video using pictures with the background music and pictures transitions. In Kdenlive it is called as a **slideshow**.

#### Steps to create a slide show :

- **Step 1 :** Be ready with pictures for your slide show.
- Step 2: We will also need suitable background audio for our slide show.
- Step 3: Create a new project and from the project bin window, click the little arrow to add Slide Show clip as shown in the figure below, then from the same arrow of the bin, select the Add clip option.
- Select the directory from where we want to select the images.



- Select the duration for which you want to keep one picture; for example 3 sec.
- Select Dissolve and Wipe transitions. From wipe transitions, we can select different options like luma1.pgm etc.
- Select animation zoom and pan and then click ok.

This will add the Slide show clip in

the Project Bin. You can rename it by double-clicking on it.

Add Slideshow Clip — Kdenlive ×											
Name	Slidesh	ow Clip									
In	nage se	lection me	ethod								
O MIME type	•	🔘 Fil	enam	ne pattern							
Folder tayyabali/Documents											
Image Type JpG(*.jpg)											
Frame Duration 00:00:05:00 hh:mm:ss:ff ~											
Loop											
Center cro	р										
Dissolve	00:0	0:01:00									
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Step 4: Add the audio clip to the timeline from the same arrow of the bin but this time selects the Add clip option. We can arrange all the files in a project bin in separate directories by clicking the Create folder option.

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Step 5: Now lets drag Slide show clip in the Video 1 timeline and Audios into audio one timeline. As shown below.

Do you notice the Slide show duration and Audio clip duration in the bottom left corner, we need to crop the audio to match the video.

Step 6: Move the mouse to adjust the audio to match the video portion. Here basically we are cutting the last portion of the audio.



Step 7: Add two effects to the audio clip, from effects menu, fade in and fade out. To add fade in and fade-out effects, we can use the effects window and search for fade. It will show both the effects.

#### Search for Fade in :

To add, we can either drag and drop on the audio clip or if the clip is selected, we can double click. Add both the effects fade in and fade out.

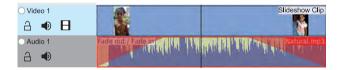


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╒ 💙 Fade in	ⓒ ☰ ^ ∨ ī
Duration	00 : 00 : 10 : 20 🗘
Properties Clip Properties	

#### **Changing properties of the effects**

Once the effects are added, we can change the duration of the fade in and fade out from the properties window as shown below alternatively; we can even use the mouse to adjust the duration.

Use the **space button** to play music and use the mouse cursor to select from where you want to play.

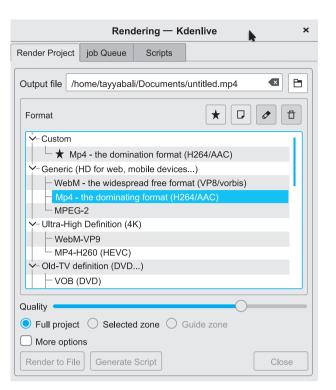


Step 8: Export the video in video editing, exporting video is called **rendering**. To render the video, you can go to the Project menu and render option (CTRL + Enter).

#### **Project Render Options**

We have the following options to choose

- 1. Output file name and location to save
- 2. Select File Format
- 3. Choose Quality of the output files



Here we will select, Mp4 widely used format and click Render to file button.

### 🖄 Do it yourself

Export video in different formats and explain the difference between the exporting types and quality. Also discuss the latest video file formats.

#### 3.13 Adding effects and Transitions

Transitions decide how Kdenlive blends from one clip into the next. You can add many different transition effects using Kdenlive's transitions.

Now we know how to add clips to the project and arrange in the timeline. Now let's create a single video using multiple video clips. For making this video, we should have multiple small videos clips and multiple audio files for background.

To add transitions follow the given steps.

- Step 1: Create a new project with multiple video tracks and add video and audio files to the project bin.
- Step 2 : Arrange all videos in different video tracks in sequence, video track will disappear and the next video will be shown, so arrange all videos as shown below.

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- Step 3 : To add a transition, adjust clips in the timeline so that the end of one overlaps the beginning of another. We can use the mouse to zoom in and zoom out to see the video clips clearly in the timeline.
- Step 4 : Then right-click in the timeline at the overlap point, select Add Transition, then choose one of the transitions from the flyout.
- **Step 5 :** Select the transition added to the clips and adjust the duration as per the requirements

The Properties window displays the settings for the effects on the currently selected clip or the settings for the currently selected transition depending on whether it is a clip or a transition that is currently selected. **Step 6 :** Finalize all the transitions, add the background audio and then export the video clips.

### 🚵 Do it yourself

Find out all the transitions provided by the Kdenlive.

#### 3.14 Adding Title to the Video :

Titles are text elements that can be added to the timeline which appears over the top of video clips. Titles are created in the **Project Tree** and then drag it to the timeline like other video clips.

If we want titles to overlay other footage, you put title clips on video track 1 and have the other footage on video track 2. We also need to retain the **affine** transition that is automatically added to the title clips to keep the footage visible underneath.

#### Steps to create title :

- To create a title, choose Add Title Clip from the Project Menu or Right-Click in the Project Tree
- Now we will get the title editor. Click the 'Save As' button on the toolbar to save the title clip. The Titles are saved as .kdenlivetitle type documents. We can load the title with existing title file also.

Kdenlive has some built-in title templates that can be accessed from the Template drop-down list found on the bottom of the Title Clip window. 3. We can add image button. Selecting this brings up a file chooser where you can choose an image to be inserted into our title.

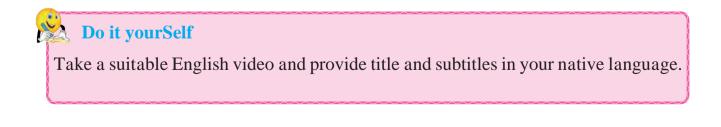
#### To make the title scroll vertically :

- Put a long title onto the title window. Zoom out so you can see it all. The text should run off the top (or bottom) of the viewable area.
- Select the Animation tab and click Edit start. Now drag the start rectangle to above the viewable area.
- Select Edit end and drag the end rectangle to below the viewable area as shown in the figure below

Click OK and preview the scrolling title.

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**Fig. 3.12 : Kdenlive Title Editor** 



#### Summary

- Audio editing is a process to edit, shorten or shift a piece of music or spoken audio, increase or decrease speed and volume or to create loop of certain portion of audio.
- Audacity is an open source software allows to record, export and import various sound file formats.
- Audacity allows to import and export common audio file formats like WAV, AIFF and MP3.
- Audacity allows to apply various effects on audio like making sound louder/ quiter, Fade in/out, sound play faster/slower, pitch lower/higher, adding echo and many more.
- Video editing is the process of manipulating raw video clips, images, sounds to create a new movie or new video.
- Linear editing, non-linear and live editing are the types of video editing.
- Basic video editing principles are a) Do not cross 180 degree line, b) join videos in sequence & edit in sequence.
- Kdenlive is an open source video editing software.
- Activity to create a video using pictures with background music & transition is called as slideshow.
- Transition effect decides how kdenlive blends from one clip into next.
- Titles are text elements that can be added to the timeline and appear over the top of video clip.

#### **Exercise**

#### Q.1 Fill in the blanks.

- 1. Video tapes edited and accessed in sequence this older video editing technique is called as..... video editing.
- 2. When video editing allows you to access any video frame while editingitis called as \_\_\_\_\_
- 3. Video Editing in which original content is not modified in the course of editing is called as
- 4. Sports events broadcast use\_\_\_\_\_\_editing.
- 5. Connecting two seemingly unrelated scenes in video editing is called as ----- effect

### Q.2 Select Single Correct Answer from the following.

- 1. Audio editing is the process of .....
  - a) Recording the audio.
  - b) Increase volume and decrease volumne of certain portion of volume.
  - c) Sharing the audio file.
  - d) Removing the noise, arranging the various audio clips together, adding various effects to sound.
- 2. Which of the following is not the area of audio editing?
  - a) Radio Technician

- b) Field Sound Engineer
- c) Film Sound Recording
- d) Choreography
- 3. Which of the following is not a audio editing software?
  - a) Traverso
  - b) Mixxx
  - c) Adobe Audio Editor
  - d) Ardour
- 4. Select the most approriate option from the following.
  - a) Audio editing is a process where we record the audio first and then make it suitable for listening.
  - b) Audio editing deals with recording audio so that it will be easy for editing.
  - c) Audio editing deals with only the compiling songs together.
  - d) Audio editing deals with everything related adding sound effects to sounds.

### Q.3 Select Single Correct Answer from the following.

- 1. Which one of the following is not the correct option in the noise removal process of audacity?
  - a) Noise reduction
  - b) Sensitivity

- c) Frequency Reduction
- d) Attack/Decay time
- e) Frequency Smoothing
- 2. While exporting the audio formats which of the following is not an option?
  - a) Album Title
  - b) Artist Name
  - c) Month of Recording
  - d) Studio
- 3. Which one of the following is not related in video editing?
  - 1) Noise reduction
  - 2) Cutaway
  - 3) Frequency Reduction
  - 4) Stock Footage
  - 5) Jump Cut
- 4. Select correct options from the following.
  - **1. Contrast :** Cutting between two different scenarios to highlight the difference.
  - **2. Parallelism :** Here you can connect two seemingly unrelated scenes.
  - **3.** Leit motif : This is reiteration of the theme involves repeating of a shot.

**4. Simultaneity :** Cutting between two simultaneous events as a way of driving up the suspense.

#### Q.4 Match the following.

#### 'A' **'B'** a) Increases or 1. Amplify decreases the lower frequencies. b) This effect is 2. Equalization ideal for reducing constant background noise. 3. Bass and Treble c) Increases or decreases the volume. 4. Noise Reduction d) Adjusts the volume levels of particular frequencies.

####