What is AUDIO?

- Audio is sound within the acoustic range available to humans.
- Audio is the most sensuous element of multimedia
  - It can provide meaningful "speech" *Example: SONA by the president*
  - It can provide the listening pleasure *of music by different artists.*
  - It can provide the startling accent *of special effects to engage our senses*
  - It can provide the ambience of a mood-setting background *for any multimedia presentation.*

How Loud is Loud?

- The loudness or softness of sound is called amplitude or volume.
- Sound pressure is measured in - dB (decibel)
- Sound waves are known as waveforms.

Mono and Stereo Channels

- Mono and Stereo are two classifications of reproduced sound.
  - MONO
    - a term used to describe sound that comes from only 1 channel (unidirectional).
      - » All elements of the sound recording are directed using one amplifier and speaker combination.

Mono and Stereo Channels

- ## STEREO
  - Uses two or more channels.
  - The recorded sounds are mixed in such a way that some elements are channeled to the left and some are channeled to the right.
  - Listening to stereo sound allows you to distinguish which sound is coming from which direction.

Types of Audio

– Background Music

– Voice Over

– Sound Effects

Background Music- *is typically the instrumental sound, songs, or music loops.*

- Enhances the project
- Affects emotions and moods *of the listeners.*
- Establishes a period in time

Voice Over

- Sometimes referred to as Narration
- Used to deliver concrete information
- Used to give instructions

Sound Effects - *are cool little sounds meant to add a little excitement every now and then on the presentation.*

- Gives an interpretation to a visual image on screen
- Indicator for mouse triggers
- Indicator for feedback

Audio Equipment

- Microphone- audio input
- Speakers - audio becomes output
- Earphones / Headphones
- Headset
- Amplifiers- enhance the sound of audio
- Sound Mixers
- Audio Editors

Sound Formats

- **MIDI (Musical Instrument Digital Interface)**
- **WAVE Format (.wav)**
- **MP3 Format (MPEG) (.mp3)**

Audio Software

- Adobe Audition
- Audacity
- Sound Forge

Advantages & Disadvantages of Using Audio

- Sound adds life to any multimedia application and plays important role in effective marketing presentations.

- Advantages
  - Ensure important information is noticed.
  - Add interest.
  - Can communicate more directly than other media.

Advantages & Disadvantages of Using Audio

- Disadvantages
  - Easily overused.
  - Requires special equipment for quality production.
  - Not as memorable as visual media.