Music Player with Audio Augmentations

# Group Members

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# Work Breakdown

## Special Sound Effects

Special Sound Effects were added by **Ali Aqdas** which are as follows

* **Echo** – Adds a delay in the audio between adjacent channels to generate a real life like echo. Small amounts of echo are enjoyable and can be used to add a flavor to the audio.
* **Surround** – Adds a feeling of surround sound in stereo audio by slightly revolving the audio between adjacent channels. This effect is best heard using a headphone. It also adds a flavor to the audio making cheap headphones sound good.
* **Muffled** – Blocks any frequency higher than 2kHz using a non ideal FIR Filter. It produces the effect of audio playing in another room. It is trending in the music industry and remixes of music are being made with this effect.
* **Speed Control** – Speed of Audio can be controlled with a slider to make it faster or slower. It is a generic feature most audio players have and can be used in collaboration with echo and surround to generate an interesting effect

Further worked on debugging and improving GUI in collaboration with Ali Hamza Malik

## Audio Equalizer and GUI

Audio Equalizer and GUI is designed by **Ali Hamza Malik**. Following tasks are performed by Ali Hamza

* GUI Design using MATLAB Guide Tool
* **Design of Audio Equalizer Filters** – Audio Equalizer Filters are designed in the Filter Design Tool and Applied to the audio to improve overall hearing experience. It is a generic feature most music players have.
* **Adapt Audio Feature** –Adapt Audio Feature helps improves the hearing experience by applying low, high and mid frequency filters. This improves overall experience of listeners especially those with hearing impairments

# Preparing and Reading Audio

Audio preparation and reading is done by **Muhammad Adil Saeed**. Adil has contributed on following features

* Reading Audio Files from directory and enlisting them.
* Preparing Audio for Playback and Resumption