In this homework, I encoded a chosen video into three different resolutions (240p, 360p, and 720p) and segmented them into 2-second chunks using FFmpeg.  
We used FFmpeg to:

* Convert one input video into three quality levels
* Split each version into .ts segments
* Generate individual playlists (prog.m3u8) and a master playlist (master.m3u8) that links them all together

The encoded video files and playlists were uploaded to a public GitHub repository and served using GitHub Pages.  
Then, an index.html page was created, allowing playback of the HLS stream directly in modern browsers. This enables adaptive streaming based on network conditions and device performance.