# Software Test Design (STD)

1. Introduction –

This Software Test Design document outlines the test cases for the functionality of the DramaTune web application, which is an app designed to find a specific dramatic soundtrack for an mp4 short video (scene) and merge it to the desired soundtrack along with the video – to create a final dramatic scene.

## 2. Test Cases

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| Test Case ID | Description | Preconditions | Test Steps | Expected Result | Actual Result |
| TC-001 | The user enters the landing page, and inserts a mp4 file | Server running, database initialized | 1. Open web application 2. Click on the “Upload” button 3. Window pops up 4. Chooses a mp4 file from the window | Video uploaded and viewed in preview mode | The user has successfully uploaded the intended video. |
| TC-002 | Begin the analyzation process | User uploaded video (mp4) | 1. Select the “Analyze” button 2. A progress bar will appear 3. Once finished the tracks will be presented | 3 Optional dramatic soundtracks presented | The system analyzed and presented 3 optional tracks |
| TC-003 | Option to listen to each track separately | User has 3 options of music presented | 1. User can click play for each track 2. Once selected, the track will be played in another tab | 1/2/3 windows opened with the selected track playing | The system has generated new tabs for each played track |
| TC-004 | The user selects the desired soundtrack | User has 3 options of music presented | 1. User selects the desired song with “Select” button | The song out of 3, has the “Select” button turn into “Selected” | The system presents the button clicked |
| TC-005 | The “Generate a new video” button appears | User has selected the desired music | 1. User selects the desired music track 2. Then appears the “Generate” button | The “Generate” button appears | The system has presented the generate button |
| TC-006 | The new video has been generated | User has the “Generate a new video” button available, video ready | 1. User selects the “Generate” button 2. A progress bar appears 3. Once finished, the old video disappears 4. And then, the new video appears slightly below | The newly generated video, which is the merged old video with the soundtrack, appears | The new generated video has appeared |
| TC-007 | Download the new video | User has the new video (merged) presenting, final video available | 1. User selects the “Download” button 2. A window pops up 3. User chooses where to save video and what to call the file (mp4) | The “Download” button works as intended and lets the user download the final video | The system has successfully completed the task of download when prompted |
| TC-008 | Change video after uploading | User uploaded video (mp4) | 1. User selects the “Change video” button 2. A new window pops up 3. The user selects a new video to replace the old one (mp4) | A new video has appeared in preview mode, instead of the old one | The system has successfully executed the change video task |
| TC-009 | The user applies “Fade in/Fade out” effects to the audio | The new video has been generated and is present | 1. User selects the checkbox for “Add fade in/fade out” 2. The video is generated once more 3. Now with the updated audio | A new video will be generated again with the faded audio component attached to the audio | To be implemented and tested |
| TC-010 | The user applies “Mood Intensity” effects to the audio | The new video has been generated and is present | 1. User selects the slider for “Mood Intensity” 2. User chooses a value from the slider 3. The video is generated once more 4. Now with the updated audio | A new video will be generated again with the mood intensity audio component attached to the audio | To be implemented and tested |
| TC-011 | The user applies “Instrumentation” effects to the audio | The new video has been generated and is present | 1. User selects the slider for “Instrumentation” 2. User chooses a value from the slider 3. The video is generated again 4. Now with the updated audio | A new video will be generated again with the instrumentation component attached to the audio | To be implemented and tested |
| TC-012 | Preview of video plays in preview mode | The video has been uploaded from user | 1. User uploaded a video 2. Video showing in preview mode with different controls | Video is playing in browser (with different controls) | The system shows the video properly |
| TC-013 | Preview of merged video plays before final export | Video and music matched,  new video generated | 1. User has clicked the “Generate” button 2. Video showing in preview mode with different controls | Video is playing on browser with new audio (and various controls) | The system shows the merged video in preview with relevant controls |
| TC-014 | UI disables “Generate” button after generation has been prompted | The newly merged video has appeared after generation | 1. User has prompted the system to generate a new video 2. The “Generate” button has disappeared 3. The new video is presented | The “Generate” button will disappear and instead the new video will appear | The system has executed the task,  and the button disappeared – user prevented from invalid action |
| TC-015 | UI disables “Analyze” and “Upload” buttons | The user has uploaded a video via “Upload”/ began the analyze process via “Analyze” | 1. User selected the upload/ analyze button 2. The respective button disappeared 3. Then began the analyzing process/ video has appeared | The video uploaded will appear/ the analyzation process will begin/end – and the respective buttons will be disabled | The system has presented the relevant video/ begun the analyzation process and the buttons disappeared |
| TC-016 | The system (algorithm) tags the video with emotion label (New tagging system) | Video uploaded and analyzed | 1. User has begun the analyzation process 2. System analyzes frames 3. Tags emotion by label | Emotion label displayed in video metadata in the project | Emotion tagging visible (in metadata) - To be implemented |
| TC-017 | The system (algorithm) tags the audio with volume and tempo labels (New tagging system) | Video uploaded and analyzed, music files suggested and matched according to video | 1. Video has been analyzed 2. Music files features have been analyzed and labeled | Tags will be added to music metadata in the project | Volume and tempo (BPM) tagging is visible (in metadata) – To be implemented |
| TC-018 | User uploads invalid video file | User is in landing page with “Upload” button presented | 1. User clicks the “Upload” button 2. Try to select a non mp4 file 3. Fails since it doesn’t let him choose | Video is not chosen or a non mp4 file, since the system doesn’t let the user choose a non mp4 | The system executed properly and only let the user choose an mp4 file for upload |
| TC-019 | User reselects a different recommended track | User has the suggested tracks available and has selected a track | 1. User has selected a track 2. Selects a different track 3. The “Select” button updates to “Selected” in the new track 4. Video then updates itself once generated with the new track | The new reselected track has the “Selected” button next to it, after the old track has the “Select” button next to it, and once generated, the merged video updates with new track. | The system executed properly, and the selected track has been updated (if changed each time) |
| TC-020 | The matching algorithm uses 50% tempo and 50% volume | All music files are tagged | 1. System performs match scoring 2. Successfully tags all music | Matches will be ranked by weighted scores for each video in the metadata, and by demand (of user) | Correct and more precise choice of music displayed, based on weighted matches. |