Practical 4
App- Musixmatch

Title of GUI	Tasks
Musixmatch	1. Edit song info
	2. Share as LyricsCard
	3. Change/Boost bass of equalizer
	4. Enable transparency of floating lyrics
	5. Change font of LyricsCard

(Note- In all tasks, it has been assumed that the app is already open to the respective start pages needed for each task to begin and hence the subgoals, methods and operators to reach these start pages have not been taken into consideration)

Task 1: Edit song info

GOMS:

Title of task	Goal description
Edit song info	Edit information related to the a song like its title, artist and genre

Goal	Subgoals (if any)	Methods	Operators
Edit the information of a song (edit title)	1. Open hamburger menu	1. Open the menu for a particular song from a list of songs	1. Tap on the hamburger menu on the right side of the song in the list to open it
		2. Open the menu for a particular song from the playing screen of the song	1. Tap on the hamburger menu on the top right corner of the playing screen of the song to open it
	2. Find and select edit song info option	1. Search for the edit song info option from the drop down menu and select it	1. scroll down in the drop down menu until you find edit info option, then tap on it

| | 3. Edit song title | 1. Cut the current title and type new title in place of it | 1. Select the current title with the help of cursor, cut it, type required title in its place |
| | 4. Confirm change in title | 1. Select the tick option | 1. locate the tick option at the top right corner of the playing screen of the song and tap on it to confirm the change in title |

Rule No.	Selection rules description
1	Select method 1 for first subgoal if the song is not already playing
2	Select method 2 for first subgoal if the song is already playing

Task 2: Share as LyricsCard

GOMS:

Title of task	Goal description
Share as LyricsCard	Share a LyricsCard for a particular song with any of your saved contacts via other applications

Goal	Subgoals (if any)	Methods	Operators
Share a LyricsCard for any song with another person	-	1. Select share LyricsCard option	1. Locate the share as LyricsCard option at the right bottom corner on the playing screen of a song and tap on it
		2. Select share via which application	1. Tap on an application to use for sharing and then select whom to share it to 2. Finally tap on the share option

There are no selection rules since there exists only a single method to perform the specified goal.

Change/Boost bass of equalizer

GOMS:

Title of task	Goal description
Change/Boost bass of equalizer	Change the bass settings with the help of equalizer for any song

Goal	Subgoals (if any)	Methods	Operators
Change/Boost bass of equalizer	1. Open hamburger menu	1. Open the menu for a particular song from the playing screen of the song	1. Tap on the hamburger menu on the top right corner of the playing screen of the song to open it
	2. Switch on equalizer	1. Move the slider to the right	1. Drag the slider at the top right corner of the equalizer to the right
	3. Increase bass by rotating knob to right	1. Turn the bass knob to change bass level	1. Drag the pointer on the bass knob towards the right in circular manner to increase the bass

There are no selection rules since there exists only a single method to perform the specified goal.

Task 4: Enable transparency of floating lyrics

GOMS:

Title of task	Goal description
Enable transparency of floating lyrics	The floating lyrics UI fades away, keeping only the lyrics visible on the foreground of another app playing music

Goal	Subgoals (if any)	Methods	Operators
Enable transparency of floating lyrics	1. Open general settings	1. Open settings using the settings	1. locate the settings icon on the homw

		icon	page at the top right corner and tap on it
	2. Select floating lyrics option	1. Open floating lyrics settings	1. Search the floating lyrics option in the menu by scrolling down and click on it
	3. Swtich on enable transparency option	1. Switch the enable transparency option on	1. Locate the enable transparency option by scrolling down and move the slider to the right to switch it on

There are no selection rules since there exists only a single method to perform the specified goal.

Task 5: Change font for LyricsCard

GOMS:

Title of task	Goal description
Change font for LyricsCard	Select a font for the text/lyrics on the LyricsCard

Goal	Subgoals (if any)	Methods	Operators
Change font of LyricsCard	1. Select fonts option	1. Click on the fonts option to view available fonts	1. Locate the fonts option at the bottom right side of the LyricsCard customize screen and tap on it
	2. Select font as per choice	1. Browse through the available fonts and select one of them	1. Slide through the available fonts and tap on any one of them as per choice

There are no selection rules since there exists only a single method to perform the specified goal.

<h1 align="center">*Practical 5*</h1>
<h2 align="center">*App- Musixmatch*</h2>

Title of GUI	Tasks
Musixmatch	1. Edit song info
	2. Share as LyricsCard
	3. Change/Boost bass of equalizer
	4. Enable transparency of floating lyrics
	5. Change font of LyricsCard

(Note on TLM-

    TLM 2007 research paper link-
        http://dmrussell.net/CHI2010/docs/p3517.pdf
    TLM operators-
        https://dl.acm.org/citation.cfm?id=2638532

    TLM timings-
        H = 0.95s
        M = 1.35s
        S (swipe) <= 1.1s
            [(upper limit as KLM pointing time (P), the logic behind this is the time taken to traverse the mousepad or move the mouse in order to move the cursor from one end of the laptop screen (avg screen size) to another might be roughly equal to the time taken for sliding across a phone's screen (avg screen size can be less since there is an underlying assumption that sliding might me more responsive/quick in action that pointing) (could be taken as 1s)]
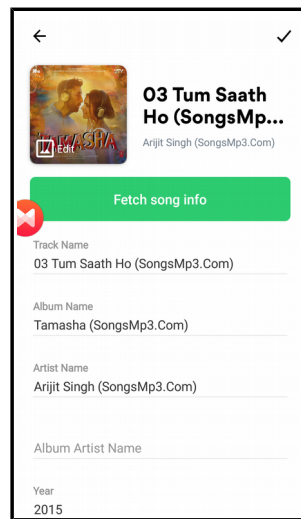   T (tap) = 0.1s (anything less than 0.12s of expert KLM typist)
        G (gesture) = 0.8s
        K (button press) = 0.39s (avg value)
        I (initial act) = 1.18s (optimal setting))

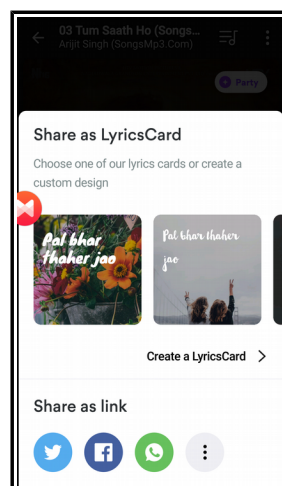**Task 1:** Edit the information of a song (edit title)

TLM:

Goal: Edit information related to the a song like its title, artist and genre

Methods	Action Sequence	TLM operator sequence	Operator time	Total time for method
1. Edit the song title for a particular song from a list of songs	1. Open the app by searching its icon on the home screen and tapping on it 2. Tap on the music option 3. Swipe along the menu bar to reach tracks option 4. Select tracks option 5. Swipe down to reach the song that is to be played 6. Tap on the menu besides the song name 7. Swipe down in menu to reach edit song info option 8. Tap on edit song info option 9. Place cursor at the end of track name by tapping there 10. Long press on track name and swipe to select it 11. Tap on the cut option in the menu that appears above the track name 12. Type required track name in blank space 13. Select tick option to confirm change in track name	IHTHSTMSHTS TTTTSTM(TT.... 15 times)HT (max length of track name can be 15 characters, calculating worst case time)	I=1.18s M=1.35s S=1s T=0.1s H=0.95s	14.08s

2. Edit the song title for a particular song from the playing screen of the song	1. Open the app by searching its icon on the home screen and tapping on it 2. Tap on the music option 3. Swipe to tracks option, tap on it, swipe to the song to be played, tap on the song to play it 4. Tap on the menu placed in the right top corner of the song playing screen 5. Everything from the 6th step in the above method is same here too	IHTSTTTTSTM(TT...15 times)HT (max length of track name can be 15 characters, calculating worst case time)	I=1.18s M=1.35s S=1s T=0.1s H=0.95s	8.45s

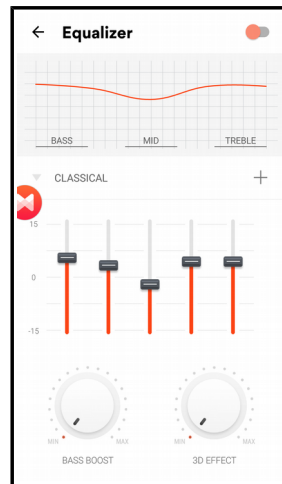Task 2: Share a LyricsCard for any song with another person

TLM:

Goal: Share a LyricsCard for a particular song with any of your saved contacts via other applications

Methods	Action Sequence	TLM operator sequence	Operator time	Total time for method
1. Select the share LyricsCard option and then select via which application	1. Open the app by searching its icon and tapping on it from the home screen of the phone 2. Tap on the music option 3. Swipe to tracks option, tap on it, swipe to the song to be played, tap on the song to play it 4. Tap on the share as LyricsCard option on the song playing screen at the bottom	IHTMHTT	I=1.18s M=1.35s S=1s T=0.1s H=0.95s	4.73s

	right corner 5. Tap on the application via which you want to share it 6. Tap on share now option			

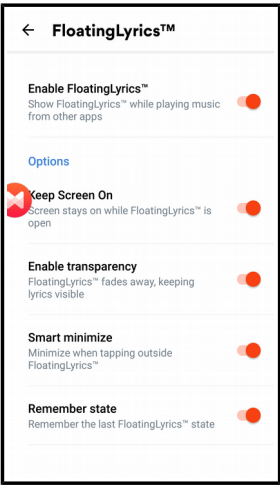Task 3: Change/Boost bass of equalizer

TLM:

Goal: Change the bass settings with the help of equalizer for any song

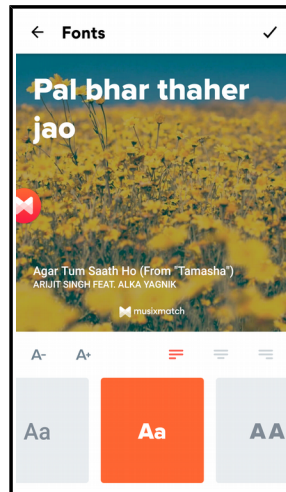| Methods	Action Sequence	TLM operator sequence	Operator time	Total time for method
1. Enable the equalizer and increase the bass for any song	1. Open the app by searching its icon on the home screen and tapping on it 2. Tap on the music option 3. Swipe to tracks option, tap on it, swipe to the song to be played, tap on the song to play it 4. Tap on the menu placed in the right top corner of the song playing screen 5. Swipe down to reach equalizer option 6. Tap on the equalizer option 7. Swipe the slider of the equalizer to the right to enable it 8. swipe the bass knob in clockwise direction to the right to boost it	IHTSTHSHMS	I=1.18s M=1.35s S=1s T=0.1s H=0.95s	8.58s

TLM:

Goal: The floating lyrics UI fades away, keeping only the lyrics visible on the foreground of another app playing music

Methods	Action Sequence	TLM operator sequence	Operator time	Total time for method
1. Open the floating lyrics settings and enable the transparency	1. Open the app by searching its icon on the home screen and tapping on it 2. Tap on the general settings option 3. Tap on the floating lyrics option 4. Swipe the enable transparency option slider to the right to switch it on	IHTHTHS	I=1.18s M=1.35s S=1s T=0.1s H=0.95s	5.23s

Task 5: Change font of LyricsCard

TLM:

Goal: Select a font for the text/lyrics on the LyricsCard

Methods	Action Sequence	TLM operator sequence	Operator time	Total time for method
1. Browse through the available fonts and select any one of them	1. Open the app by searching its icon and tapping on it from the home screen of the phone 2. Tap on the music option 3. Swipe to tracks option, tap on it, swipe to the song to be played, tap on the song to play it 4. Tap on the share as LyricsCard option on the song playing screen at the bottom right corner 5. Tap on the create a LyricsCard option 6. Tap on the fonts option 7. Swipe to view all fonts and select any one of them 8. Tap on the tick option to confirm selection	IHTTTSMTHT	I=1.18s M=1.35s S=1s T=0.1s H=0.95s	5.93s