COMP1752 Object-Oriented Programming: Jukebox Simulation Report

Title Page

- Course Title: COMP1752 Object-Oriented Programming
- Assignment: Jukebox Simulation
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- Submission Date

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1. Introduction

This report include analysis of coursework functionality and development stages of this project. The jukebox simulation provide view tracks functionality which can find and print track information on screen. This project will improve jukebox simulation with few more features such as create tracks playlist and update tracks information. This report follow the chronological order of the development from design, coding, testing, conclusion and innovation.

2. Design and Development

The track player and view track have the exact same layout as original program but wheat colour background, black text colour, dark orange button background and white foreground as well as the other windows.

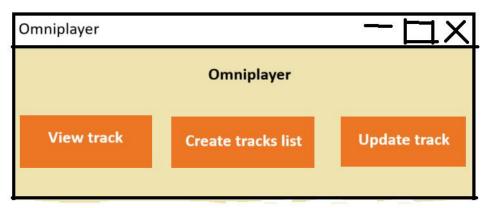


Image 1 Sketch of track player GUI

The create tracks list layout, which have an input entry to get the track number, one button on the same row as the entry to add the track(if exist) to playlist, another button below to reset list or delete all track from list which have red background, a big scroll text to display all track's basic information such as name, artist and play count, at the same row, there is a play button to play all track, in this case it only increase play count of track in playlist.

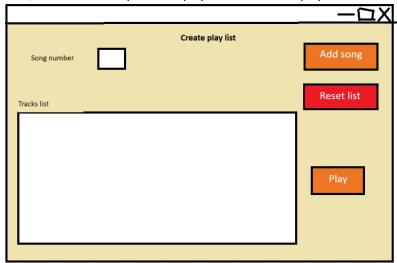


Image 2

Update tracks window, this window have two entries of track number and new rating, update button on the same row to update track rating, change window size display new track information on text box.

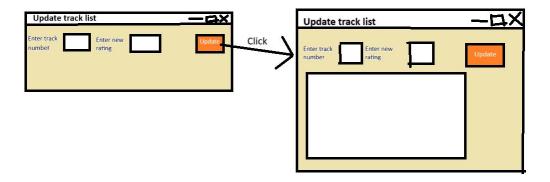


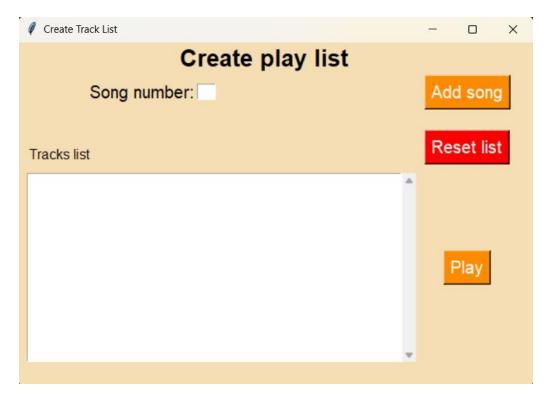
Image 3

Pic 3. Update tracks window which can change after update button clicked

• Screenshots of program in operation









3. Testing and Faults

- Testing methodology
- Summary of test results

Testing	Input	Expected output	Actual output	Test
subject				result
Track	None	GUI looks like Image 1		Pass
player				
GUI	_		Image 1. Trackplayer window	
Create	Create	Create tracks list window open	Create play list	Pass
tracks	tracks list		Song number: Add song	
list	button		Tracks list	
button on track				
player			Play	
GUI				
	None		✓ Create Yack List	Doss
Create tracks	None		Create play list Song number: Add song	Pass
list GUI			Dec. (Ca.	
1130 001			Tracks list	
			_	
			Play	
Update	None		Update tracks list	Pass
track			Update track information	
GUI			Enter Enter	
before			track number new rating Update track	
update				
button				
Update	Any	With invalid rating input on text		Pass
track GUI	number	box	Update track information	
after	or None,		Enter Enter track number new rating Update track	
update	None		Track detail	
button	number		Invalid rating input	
	or none			
	or			
	number			
	lesser			
	than 0 or			
	greater			
	than 5,		# Indate tracks list	
Update	1,2	With track number 1 name,	* opulate tracks list	Pass
track GUI		artist, rating: 2, play: playcount on text box	Update track information	
after		on text box	Enter track number 1 Enter new rating 4 Update track	
update			Track detail	
button			Another Brick in the Wall Pink Floyd	
			rating: 2 plays: 0	
I I a I i	NI-	Mich inveli	OTK EAGENMENTS MOORES ENVIRONMENT STREET OF THE MOORES OF	D-
Update	Non number	With invalid number input on text box	# Update tracks list	Pass
track GUI	or None,	LEXT DUX	Update track information	
after	number		Enter Enter new rating 3 Update track	
update	from 1 to		Track detail Invalid number input	
button	5			
			b	
	1			

- Discussion of encountered issues
 - Resolved faults and corrections made
 - Unresolved issues and limitations
 - Validation implementation
- Unit testing approach and results

4. Conclusions, Further Development, and Reflection

- Summary of the program achievements
- Evaluation against original requirements
- Further development possibilities (what you would do with additional time)
- Reflection (choose one):
 - Option A: Achievements, difficulties faced and why, straightforward aspects and why
 - o Option B: Personal development, knowledge and skills gained, long-term value

5. Innovations

- Innovation 1: [Name of innovation]
 - o Description and rationale
 - o Implementation details
 - o Benefits and limitations
- Innovation 2: [Name of innovation]
 - Description and rationale
 - Implementation details
 - Benefits and limitations

Appendices

Appendix A: Commented Code (Stage 1)

Complete commented version of view_tracks.py

Appendix B: Test Table and Results

- Input values
- Actions performed

- Expected outputs
- Actual outputs



Image 4. Trackplayer window

Pass/fail status

Appendix C: Full Source Code

• All Python files with brief descriptions