

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust ®

BGS NATIONAL PUBLIC SCHOOL

(Affiliated to Central Board of Secondary Education, New Delhi)
Hulimavu, Bannerghatta Road, Bengaluru - 560 076



Computer Science Investigatory Project

Year: 2025-26

Topic:

Name: Your Name

Class:

Exam Roll No:

CERTIFICATE

This is to certify that _____ of class XII of BGS National Public School has successfully completed the Investigatory Project in Computer Science for **SENIOR SECONDARY CERTIFICATE EXAMINATION (SSCE)** prescribed by CBSE in the year 2025-2026.

Date:

Principal Sign

External Examiner

Internal Examiner

ACKNOWLEDGEMENTS

I would like to express my gratitude to our Respected **Principal Dr Malini M Dutta, and Vice Principal Ms Savitha Suverna** for being a constant pillar of support.

I would then like to thank our **Computer Science teacher, Ms. Babitha E Z** for helping me with this project and guiding me throughout and helping me in every step of the project.

I would also like to thank God Almighty and my parents for always being by my side and my fellow mates who were always ready to help.

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INTRODUCTION

This project mainly focuses on the development of an application program to play songs. This program makes it convenient and more enjoyable to listen to user selected favourite songs.

The features of the project include the ability to create user defined playlists which allow one to curate one's own personalized lists of songs from various artists. Users have the ability to create their own account with password protection and save their playlists. Users can also rate songs based on their experience. Users can also view lyrics of the songs if needed.

Addition, updation and deletion of songs are controlled by the admin.

We were inspired by different music streaming apps like Spotify, JioSaavn etc. to build a Music Player by ourselves.

PROJECT SELECTION

We adopted this idea to provide an interactive interface between users and song files. The application program provides a quality experience to the user using data files. Concepts in Python and MySQL were used to develop the application.

The admin creates a database consisting of 3 tables: Songs, Users and Playlists. Users can listen to songs of their choice using a simple and efficient interface. Their experience is enhanced by the availability of features such as playlists, lyrics etc. All this has been achieved through the efficient extraction from and injection into the database.

WORKING ENVIRONMENT

OPTIMUM REQUIREMENTS

- **Operating System** – Windows 10
- **Processor** – Must be clocked over 1.5 GHz
- **Graphics Driver** – Intel Integrated Graphics or equivalent or greater
- **RAM** – 8 GB or more.
- **Hard Disk** – 1 TB
- **Python interpreter** – Python IDLE 3.6
- **MySQL**

LIBRARIES & MODULES

Libraries	Purpose

DATA DICTIONARY

USER DEFINED FUNCTIONS

Functions	PURPOSE
	Project.py

SOURCE CODE

LOG OF PROJECT

LOG-1:15/6/2020

- Ideation
- Discussion of topic - Music Player

LOG-2:27/6/2020

- Searched for various modules available to play audio
- Learning to work with Tkinter

LOG-3:10/7/2020

- Decision to use pygame module to play audio

LOG-4:23/7/2020

- Created SQL table User
- Worked on Home screen
- Worked on sign up and login options using Python-SQL Connectivity

LOG-5:24/7/2020

- Created SQL table Songs

LOG-6:26/7/2020

- Created SQL table Playlists
- Worked on user options: Creating a User Defined Playlist in table Playlist

LOG-7:30/7/2020

- Worked on admin options: Updating song details in SQL table Songs

LOG-8:3/8/2020

- Worked on user options: Song Screen Interface
- Worked on user options: Play, Pause, Stop button added in song screen
- Worked on user options: Playing a random song

LOG-9:4/8/2020

- Worked on user options: Rating a song

LOG-10:5/8/2020

- Worked on admin options: Adding new song details to SQL table Songs
- Worked on admin options: Deleting song details from SQL table Songs

LOG-11:6/8/2020

- Worked on user options: Playing Songs from a defined Playlist

LOG-12:7/8/2020

- Worked on admin options: Integrating admin options(Add, Update and Delete)

LOG-13:14/8/2020

- Worked on user options: Integrating user options

LOG-14:1/9/2020

- Worked on user options: Search for a Song

LOG-15:8/9/2020

- Worked on user options: Delete a User Defined Playlist from SQL table Playlist

LOG-16:12/9/2020

- Discussion to include lyrics feature using text files

LOG-17:6/11/2020

- Worked on user options: Introduction of lyric feature in song screen

LOG-18:9/11/2020

- Worked on integrating all the program files together

LOG-19:12/11/2020

- Worked on various bug fixes and improvements

LOG-20:28/11/2020

- Improvements in the design of GUI interface and layout
- Worked with colour combinations and backgrounds

LOG-21:15/12/2020

- Completion of Project and Submission

SAMPLE OUTPUT

BIBLIOGRAPHY

- <https://www.tutorialspoint.com/python/>
- <https://www.geeksforgeeks.org>
- <http://stackoverflow.com/>
- <https://www.javatpoint.com>
- <https://www.google.co.in/>
- <https://pythonexamples.org>
- <https://effbot.org/>