Name: Mark:

Database Assignment

Purpose and End User of my database

This database shows all my favorite songs, and the end user is anyone who wants to find a list of good songs to enjoy.

Describe at least 3 implications that are relevant to your database and its use by the end user and why they are important

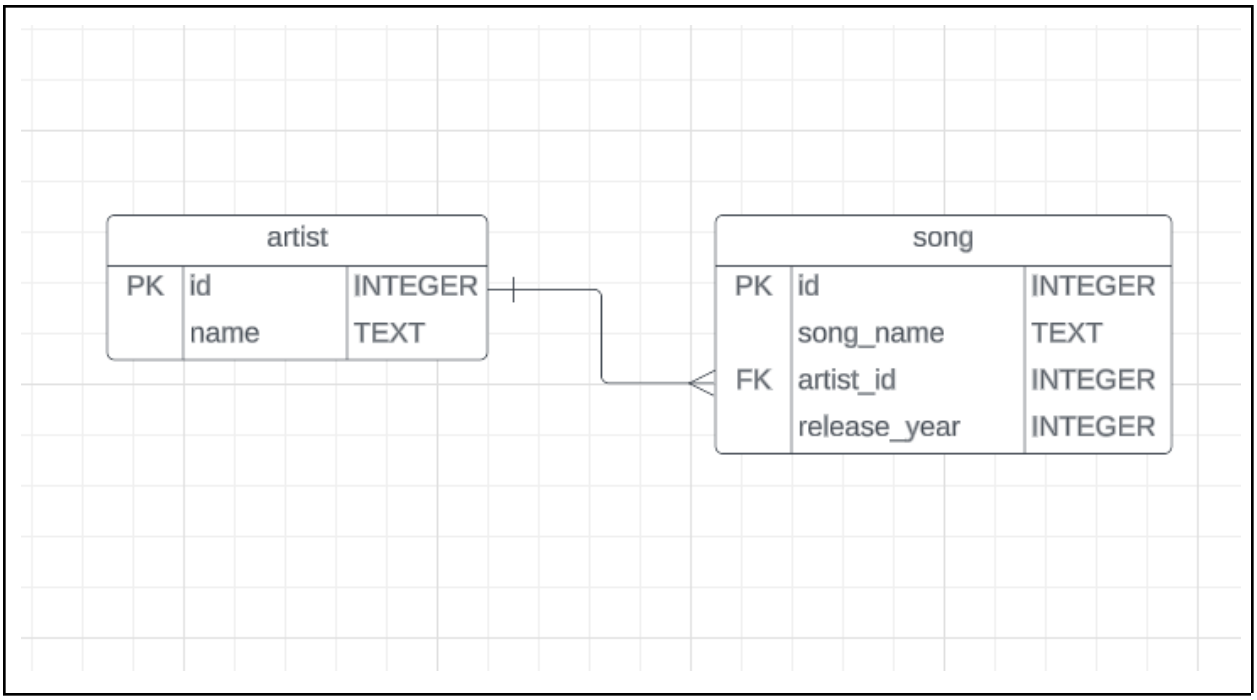
Functionality:
Does it work well? It works efficiently with the right commands, but there are no serious problems if one messes up somehow.

Legal:
Does it obey all laws? These songs are not publicly available to be reproduced in any way without copyright claims and infringement, but for a purpose like this, there aren't any legal terms or conditions, so this database won't be prone to legal issues.

Privacy:
Is all data kept safe? My database doesn't require any passwords or usernames in the first place.

Name: Mark:

Database Design- Your Entity Relationship Diagram.



Database Testing Table: SQL Statements

Purpose	**SQL Statement**	**Result Success?**
List all songs	SELECT * FROM song	Yes
List all artists	SELECT * FROM artist	Yes

Name: Mark:

Relevant Implications- Explain how your database addresses the relevant implications that you identified at the start.

Functionality:
The database works efficiently and there are no major problems.

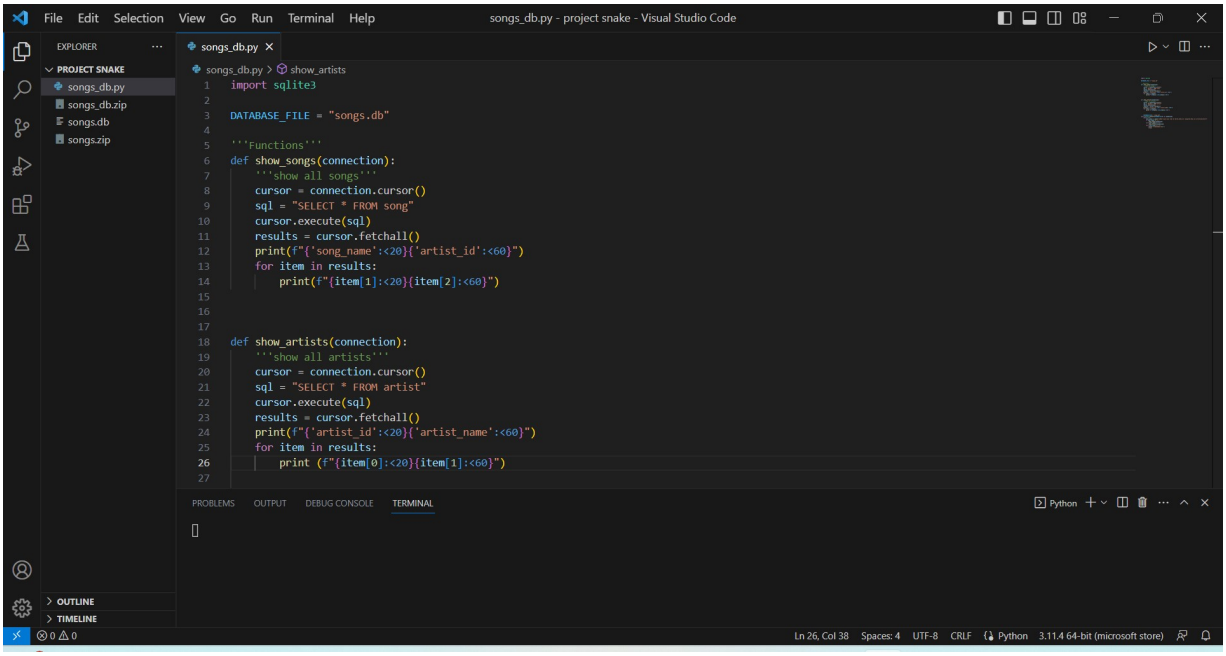
Privacy:
No passwords required, but other than that, any and all data stored is secure.

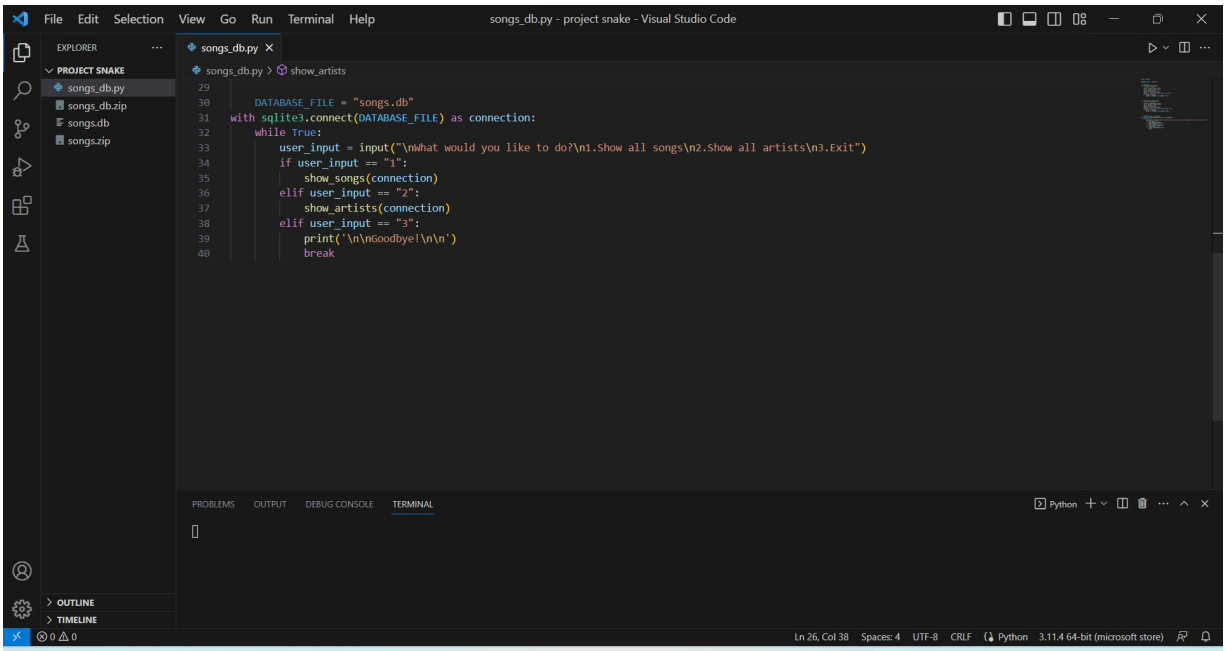
Legal:
It falls within all legal requirements, so there won't be any infringing issues.

Showcase:

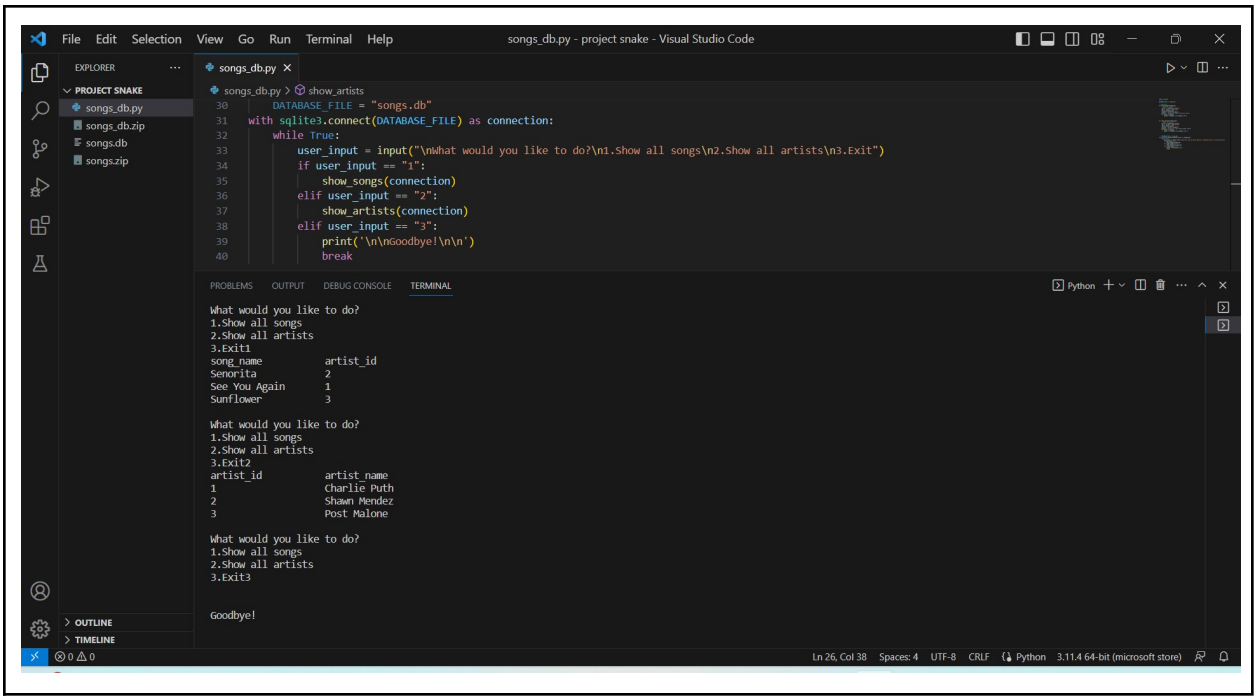
Give evidence of your database and the Python code that interfaces with it. Use screenshots or a short video. Explain how it improved, how it functions, how it was tested etc.

Name: Mark:


File Edit Selection View Go Run Terminal Help
songs_db.py - project snake - Visual Studio Code
EXPLORER
PROJECT SNAKE
songs_db.py
songs_db.zip
songs.db
songs.zip
songs_db.py
songs_db.py > show_artists
import sqlite3
DATABASE_FILE = "songs.db"
'''Functions'''
def show_songs(connection):
'''show all songs'''
cursor = connection.cursor()
sql = "SELECT * FROM song"
cursor.execute(sql)
results = cursor.fetchall()
print(f"{'song_name':<20}{'artist_id':<60}")
for item in results:
print(f"{item[1]:<20}{item[2]:<60}")
def show_artists(connection):
'''show all artists'''
cursor = connection.cursor()
sql = "SELECT * FROM artist"
cursor.execute(sql)
results = cursor.fetchall()
print(f"{'artist_id':<20}{'artist_name':<60}")
for item in results:
print (f"{item[0]:<20}{item[1]:<60}")
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Python
OUTLINE
TIMELINE
Ln 26, Col 38 Spaces: 4 UTF-8 CRLF Python 3.11.4 64-bit (microsoft store)


File Edit Selection View Go Run Terminal Help
songs_db.py - project snake - Visual Studio Code
EXPLORER
PROJECT SNAKE
songs_db.py
songs_db.zip
songs.db
songs.zip
songs_db.py
songs_db.py > show_artists
DATABASE_FILE = "songs.db"
with sqlite3.connect(DATABASE_FILE) as connection:
while True:
user_input = input("\nWhat would you like to do?\n1.Show all songs\n2.Show all artists\n3.Exit")
if user_input == "1":
show_songs(connection)
elif user_input == "2":
show_artists(connection)
elif user_input == "3":
print('\n\nGoodbye!\n\n')
break
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Python
OUTLINE
TIMELINE
Ln 26, Col 38 Spaces: 4 UTF-8 CRLF Python 3.11.4 64-bit (microsoft store)

Name: Mark:


File Edit Selection View Go Run Terminal Help
songs_db.py - project snake - Visual Studio Code
EXPLORER
PROJECT SNAKE
songs_db.py
songs_db.zip
songs.db
songs.zip
songs_db.py
songs_db.py > show_artists
30 DATABASE_FILE = "songs.db"
31 with sqlite3.connect(DATABASE_FILE) as connection:
32 while True:
33 user_input = input("\nWhat would you like to do?\n1.Show all songs\n2.Show all artists\n3.Exit")
34 if user_input == "1":
35 show_songs(connection)
36 elif user_input == "2":
37 show_artists(connection)
38 elif user_input == "3":
39 print('\n\nGoodbye!\n\n')
40 break
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Python
What would you like to do?
1.Show all songs
2.Show all artists
3.Exit1
song_name artist_id
Senorita 2
See You Again 1
Sunflower 3
What would you like to do?
1.Show all songs
2.Show all artists
3.Exit2
artist_id artist_name
1 Charlie Puth
2 Shawn Mendez
3 Post Malone
What would you like to do?
1.Show all songs
2.Show all artists
3.Exit3
Goodbye!
OUTLINE
TIMELINE
Ln 26, Col 38 Spaces: 4 UTF-8 CRLF Python 3.11.4 64-bit (microsoft store)

Name: Mark:

Teacher Checklists:

AS91879- Develop a digital outcome to manage data

Credits: 4
NZQA: https://www.nzqa.govt.nz/nqfdocs/ncea-resource/achievements/2019/as91879.pdf

Achieved- Develop a digital outcome to manage data	**Evidence**	
using appropriate tools and techniques to structure, organise, query and present data for a purpose and end user		✓
applying appropriate data integrity and testing procedures	Not nearly enough testing as it is not a complex enough program	
describing relevant implications.		✓
Merit- Develop an informed digital outcome to manage data		
using information from testing procedures to improve the quality and functionality of the outcome		
structuring, organising and querying the data logically		
addressing relevant implications.		
Excellence- Develop a refined digital outcome to manage data		
iterative improvement throughout the development and testing process		
presenting the data effectively for the purpose and to meet end-user requirements.		

Name: Mark:

Develop a computer program

Credits: 4 (Internal)
NZQA: http://www.nzqa.govt.nz/nqfdocs/ncea-resource/achievements/2018/as91883.pdf

Achieved **Develop a computer program**	**Evidence**	
Wrote a program that performs a specific task using a suitable programming language		✓
Set out the program code clearly		✓
Documented the program with comments		-
Tested and debugged to ensure that it works on a sample of expected cases		-testing?
Merit **Develop an informed computer program**		
Documented the program with variable names and comments that describe code function and behaviour		
Following conventions of the chosen programming language		
Tested and debugged the program in an organised way to ensure it works on expected and relevant boundary cases		
Excellence **Develop a refined computer program**		
Ensured the program is a well structured logical solution to the task		
Making the program flexible and robust		
Comprehensively tested and debugged the program		

Comments:

Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria in the Achievement Standard.