PYTHON

Assignment

1. **Write a Python program to open an image file (e.g., .jpg or .png), copy its content, and save it as a new image file with a different name.**

2. **Write a Python program to load an image, convert it to grayscale, and save the result.**

3. **Use a Python library (like pygame or pydub) to load an audio file (e.g., .mp3 or .wav) and play it.**

4. **Write a Python program to merge two audio files into one (use the pydub library).**

5. **Write a Python program to extract audio from a video file (e.g., .mp4) and save it as an audio file using the moviepy library.**

6. **Write a Python program that compresses a video file (e.g., .mp4) using the moviepy or opencv library.**

7. **Write a Python program to compress multiple files into a zip archive.**

8. **Write a Python program to unzip a given archive and extract all files.**

9. **Create a Python program that serializes a Python object (such as a dictionary) into a file using the pickle module and later deserializes it (unpickles) to retrieve the original object.**

10. **Create a Python program to store a list of dictionaries in a pickled file, and then retrieve it.**

11. **Write a Python program that takes a list of dictionaries containing student data (e.g., name, age, grade) and saves it to a CSV file.**

12. Write a Python program to read data from a CSV file and print each row.

13. Write a Python program to append new records (e.g., employee data) to an existing CSV file.

14. Write a Python program to read a CSV file and convert its rows into a list of dictionaries where each key is a column header.

15. Write a Python program to create a zip file that contains multiple CSV files, then extract the CSV files from the zip file and read their contents.