Python Practice

Set 7

Q1. Write a program that spawns two threads. One thread should print even numbers between 0 and 10, and the other thread should print odd numbers between 1 and 9.

Q2. Write a program that generates a list of random numbers and sorts them using multithreading. Use two threads to sort the first half and the second half of the list in parallel.

Q3. Write a program that simulates a bank account transaction. The program should create two threads, one for a deposit and one for a withdrawal. The deposit thread should add
100 to the account,and the withdrawal thread should withdraw
50 from the account. Run the program for 10 iterations.

Q4. Write a Python program that creates a thread to print out the current date and time every 5 seconds. The program should continue running until the user presses the 'q' key.

Q5. Write a Python program that creates two threads. Each thread should print out the numbers from 1 to 10. The two threads should run concurrently and print out the numbers in an interleaved fashion.

Q6. Write a Python program to create a shared variable between two threads and increment its value in each thread.

Q7. Here's a Python program that creates a thread to count down from 5 to 0 and prints "Blastoff!" when the count reaches 0:

Q8. Write a program that creates a thread to print the Fibonacci sequence up to a certain number n. The main thread should prompt the user for the value of n.

Q9. Write a program that creates two threads to add and subtract numbers from a shared variable. The shared variable should start at 0, and each thread should perform 10 iterations of adding or subtracting a random integer between 1 and 10. The program should print the final value of the shared variable.

Q10. Write a program that creates a thread to calculate the sum of the numbers from 1 to 100 and prints the result.