

[Save Below code as BerkeleyClockSync.java]

```
import java.util.ArrayList;

public class BerkeleyClockSync {

    public static void main(String[] args) {

        // Initialize the system clocks
        int[] systemClocks = { 10, 12, 13, 11, 14 };
        int masterClock = 0;

        // Print the initial system clocks
        System.out.print("System clocks: ");
        for (int clock : systemClocks) {
            System.out.print(clock + " ");
        }
        System.out.println();

        // Calculate the average system clock
        int sum = 0;
        for (int clock : systemClocks) {
            sum += clock;
        }
        int averageClock = sum / systemClocks.length;

        // Calculate the time difference for each system clock
        ArrayList<Integer> timeDifferences = new ArrayList<>();
        for (int clock : systemClocks) {
            timeDifferences.add(averageClock - clock);
        }

        int timeAdjustment = 0;
        for (int difference : timeDifferences) {
```

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        timeAdjustment += difference;
    }
    timeAdjustment /= timeDifferences.size();
    // Update the master clock
    masterClock = averageClock - timeAdjustment;
    // Print the updated system clocks and master clock
    System.out.print("Updated system clocks: ");
    for (int clock : systemClocks) {
        System.out.print((clock - timeAdjustment) + " ");
    }
    System.out.println();
    System.out.println("Master clock: " + masterClock);
}
}
```