

Task 7: Timezone

Create a timezone converter that takes a time in one timezone and converts it to another timezone.

```
package test;
import java.time.*;
import java.time.format.DateTimeFormatter;
import java.util.Scanner;
public class TimezoneConverter {
    public static void main(String[] args) {
        Scanner scanner=new Scanner(System.in);
        System.out.print("Enter a time (HH:mm:ss) in UTC: ");
        String ts=scanner.nextLine().trim();
        DateTimeFormatter formatter=DateTimeFormatter.ofPattern("HH:mm:ss");
        LocalTime time=LocalTime.parse(ts,formatter);
        ZoneId utcZone=ZoneId.of("UTC");
        ZonedDateTime utcDateTime=ZonedDateTime.of(LocalDate.now(), time, utcZone);
        System.out.print("Enter the target timezone (e.g., America/New_York): ");
        String targetTimezoneId=scanner.nextLine().trim();
        ZoneId targetZone=ZoneId.of(targetTimezoneId);
        ZonedDateTime targetDateTime=utcDateTime.withZoneSameInstant(targetZone);
        String outputFormat="HH:mm:ss z (zzzz)";
        DateTimeFormatter outputFormatter=DateTimeFormatter.ofPattern(outputFormat);
        String formattedTime=outputFormatter.format(targetDateTime);
        System.out.println("Converted time in " + targetTimezoneId + ": " + formattedTime);
        scanner.close();
    }
}
```