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Task 1: Java IO Basics

Write a program that reads a text file and counts the frequencyof each word using FileReader and FileWriter. **Solution:**

```
package com.wipro.assign20;
 import java.io.BufferedReader;
import java.io.FileReader;
import java.io.IOException;
import java.util.HashMap; import
java.util.Map;
 public class Task1 {
     public static void main(String[] args) {
      String filePath = "D:\\data/myfile.txt";
            try (FileReader fileReader = new FileReader(filePath);
BufferedReader bufferedReader = new BufferedReader(fileReader)) {
               Map<String, Integer> wordCount = new HashMap<>();
                String line;
                while ((line = bufferedReader.readLine()) != null) {
                   String[] words = line.split("\\s+");
                   for (String word : words) {
word = word.toLowerCase();
wordCount.put(word,
 wordCount.getOrDefault(word, 0) + 1);
                    }
                }
for (Map.Entry<String, Integer> entry : wordCount.entrySet()) {
  System.out.println(entry.getKey() + ": " + entry.getValue());
            } catch (IOException e) {
```

```
System.err.println("Error reading the file: " + e.getMessage());
           }
}
Output:
9 public class Task1 {
  Day19Java
                                               public static void main(String[] args) {
    String filePath = "D:\\data/myfile.txt";
  > M. JRE System Library [InvaSE-17]
    v # com.wipro.assign20
                                                    try (FileReader fileReader = new FileReader(filePath);

    E FilelO.java
    E Task1.java

                                                            BufferedReader bufferedReader = new BufferedReader(fileReader)) {
                                                         Map<String, Integer> wordCount = new HashMap<>();
  ₽ Day505A
  String line;
while ((line = bufferedReader.readLine()) |= null) {
  gil Employee_project
                                                               String[] words = line.split("\\s+");
for (String word : words) {
  Si Java,day1
  SydDay2
                                                                   word = word.toLowerCase():
  3 JavaDay2p2
                                                                   wordCount.put(word, wordCount.getOrDefault(word, 0) + 1);
  }
  Javadayli
  Gi JOBCOay4
  (S) JOBCdemoday4
                                                          for (Map.EntrycString, Integer> entry : wordCount.entrySet()) {
   System.out.println(entry.getKey() + ": " + entry.getValue());
                                                     } catch (IOException e) {
    System.err.println("Error reading the file: " + e.getMessage());
                                        E Problems # Javadoc & Declaration @ Console ×
                                        -terminated - Taski (Java Application) CNJ-ben'iyarish, p2'spoof-pluginshorg-eclipse-justj. openystkhotspot. jire full win32 x86, 64, 17.0.10 x20240120-1143 (jerishirijanawene (liun 2, 2024, 11
                                        abcabcabccccccccccaabb: 1
                                        abbb: 2
                                        acbb: 1
```

Task 2: Serialization and Deserialization

Serialize a custom object to a file and then deserialize it back to recover the object state.

```
package com.wipro.assign20;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException; import
java.io.ObjectInputStream; import
java.io.ObjectOutputStream;

public class SerilaizationDemo {
    public static void main(String[] args) {

        Person person = new Person("Rachel", 30);
}
```

```
try (FileOutputStream fileOut = new
 FileOutputStream("person.ser");
                      ObjectOutputStream out = new ObjectOutputStream(fileOut))
 {
                    out.writeObject(person);
                    System.out.println("Person object serialized.");
} catch (IOException e) {
                    e.printStackTrace();
              }
              try (FileInputStream fileIn = new
 FileInputStream("person.ser");
                      ObjectInputStream in = new ObjectInputStream(fileIn)) {
                    Person deserializedPerson = (Person) in.readObject();
System.out.println("Deservalized person: " + deservalizedPerson.getName());
              } catch (IOException | ClassNotFoundException e) {
                    e.printStackTrace();
        }
Output:
                       B 8 | P |
                                 7 import java.io.ObjectOutputStream;
 > S Day18Assignment
 9 public class SerilaizationDemo {
  > M. JRE System Library [JavaSE-17]
                                       public static void main(String[] args) {
  v 🥬 src
   v # com.wipro.assign19
                                           Person person = new Person("Rachel", 30);
     > II FunctionalInterf.java
     > (2) Pairjava
     > D Personjava
                                           try (FileOutputStream fileOut = new FileOutputStream("person.ser");
     > 🗵 Reflect.java
                                               ObjectOutputStream out = new ObjectOutputStream(fileOut)) {
     >  SortPerson.java
                                               out.writeObject(person);
                                 18
19
     > E Swap.iava
                                              System.out.println("Person object serialized.");
    } catch (IOException e) {

→ Sid Day20Task

                                 20
                                              e.printStackTrace();
  > mi. JRE System Library [JovaSE-17]
  u 💯 src
    v # com.wipro.assign20
                                 23
     ) Z FilelOjava
                                         try (FileInputStream fileIn = new FileInputStream("person.ser");
                                              ObjectInputStream in = new ObjectInputStream(fileIn)) {
Person deserializedPerson = (Person) in.readObject();
System.out.println("Deserialized person: " + deserializedPerson.getName());
     > III Personjava
     ☑ SerilaizationDemo.java
     > D Task1.java

> II module-info java

                                          } catch (IOException | ClassNotFoundException e) {
 DaySDSA
                                              e.printStackTrace();
> Bil Day7Dsa
                                 30
                                31
> SS DSAAssignment
                                       }
                                 32 }
 S Employee_project
 3 Java_day1
 > Sel JavaDay2
                                Problems # Javadoc 1 Declaration Console X
 > Sel JavaDay2p2
                                 > 2 JavaDay3
                                Person object serialized.
> Mary Javaday 1
                                Deserialized person: Rachel
 > Si JDBCDay4
 > 24 JDBCdemoday4
```

Task 3: New IO (NIO) Use NIO Channels and Buffers to read content from a file and write to another file.

```
package com.wipro.assign20;
```

```
import java.io.IOException; import
java.nio.ByteBuffer; import
java.nio.channels.FileChannel; import
java.nio.file.Path; import
java.nio.file.Paths;
 import java.nio.file.StandardOpenOption;
public class FileNIO {
      public static void main(String[] args) {
             Path sourcePath = Paths.get("D:\\data/file.txt");
             Path targetPath = Paths.get("D:\\\data/myfile.txt");
             try (FileChannel sourceChannel =
FileChannel.open(sourcePath, StandardOpenOption.READ);
                   FileChannel targetChannel =
 FileChannel.open(targetPath, StandardOpenOption.CREATE,
                          StandardOpenOption.WRITE()) {
                 ByteBuffer buffer = ByteBuffer.allocate(1024);
                 while (sourceChannel.read(buffer) != -1) {
                     buffer.flip();
targetChannel.write(buffer);
                                                 buffer.clear();
                 }
                 System.out.println("File copied successfully!");
             } catch (IOException e) {
e.printStackTrace();
         }
 }
 Output:
```

```
* Package Explorer × % Type Hierarchy DEmployeeNot... Reflect.java DFilelOjava DTaskljava

**S import java.nio.file.StandardOpenOption;
∠ 😂 Dav19Java
                                              10 public class FileNIO {
  > M JRE System Library [JavaSE-17]
                                             11e public static void main(String[] args) {
12     Path sourcePath = Paths.get("D:\\data/file.txt");
13     Path targetPath = Paths.get("D:\\\data/myfile.txt");

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B com.wipro.assign19

      >   FunctionalInterf.java
                                             try (FileChannel sourceChannel = FileChannel.open(sourcePath, StandardOpenOption.READ);

FileChannel targetChannel = FileChannel.open(targetPath, StandardOpenOption.CREATE,

StandardOpenOption.WRITE)) {
      > 🛭 Pair.java
      Person.java
      > 🔑 Reflect.java
> 🕑 SortPerson.java
    >  Swap.java
>  module-info.java
                                                                   ByteBuffer buffer = ByteBuffer.allocate(1024):
Day20Task
                                                                     while (sourceChannel.read(buffer) != -1) {

■ JRE System Library [JavaSE-17]
                                                                           buffer.flip();
targetChannel.write(buffer);
                                                                           buffer.clear();
      > I FilelO.java
      FileNIO.java
      > II HTTPDemo.iava
                                                                      System.out.println("File copied successfully!");
       HTTPExample.java
                                                               } catch (IOException e) {
                                                                e.printStackTrace();
}
      Person.java
      Task1.iava
> ② module-info.java
                                              32 }
                                            33
⇒ 🔂 Day7Dsa
⇒ 😂 DSAAssignment
                                            Problems @ Javadoc Declaration Console ×

→ 

Employee_project
→ 

Java_day1
                                              -terminated> FileNIO [Java Application] C\Users\vaish\.p2\poo\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.10.v20240120-1143\jre\bin\javaw.exe (Jun 2, 2024, 11:27:3
                                            File copied successfully!
iavaDav2
∍ 👺 JavaDay2p2
JavaDav3
```

Task 4: Java Networking

Write a simple HTTP client that connects to a URL, sends a request, and displays the response headers and body.

```
package com.wipro.assign20;
 import java.io.BufferedReader;
import java.io.IOException; import
java.io.InputStreamReader; import
java.net.HttpURLConnection; import
java.net.URL; import
java.util.List; import
java.util.Map;
public class HTTPExample {
                                public static void
                              String urlString =
main(String[] args) {
"https://www.google.com/";
                                     try {
             URL url = new URL(urlString);
             HttpURLConnection connection = (HttpURLConnection)
url.openConnection();
             connection.setRequestMethod("GET");
int responseCode = connection.getResponseCode();
```

```
System.out.println("Response Code: " +
responseCode);
             Map<String, List<String>> headers =
connection.getHeaderFields();
                                          for
(Map.Entry<String, List<String>> entry :
headers.entrySet()) {
                 String headerName = entry.getKey();
for (String value : entry.getValue()) {
                     System.out.println(headerName + ": " + value);
                 }
             }
             BufferedReader in = new BufferedReader(new
 InputStreamReader(connection.getInputStream()));
             String inputLine;
             StringBuilder responseBody = new StringBuilder();
while ((inputLine = in.readLine()) != null) {
responseBody.append(inputLine);
in.close();
             System.out.println("Response Body:");
             System.out.println(responseBody.toString());
         } catch (IOException e) {
             e.printStackTrace();
         }
     }
}
 Output:
```

```
# Package Explorer × 1: Type Hierarchy
                                    " D R EmployeeNot. R EmployeeNai. Reflect, and R FileOjava R TaskS java R Serializatio. Resonjava R HTTPDemojava R HTTPD:
                              8891
                                           1 package com.wipro.assign20;
                                           3 import java.io.BufferedReader;
4 import java.io.IOException;
v S Day19lawa
                                          5 import java.io.InputStreamReader;
6 import java.net.HttpURLConnection;
 w 25 sec
      > In Runctional Interfava
                                          7 import java.net.URL;
8 import java.util.List;
      > (ii) Personiava
                                            9 import java.util.Map;
                                           11 public class HTTPExample {
     > III SortPerson,iava
      Swepjeve
                                                  public static void main(String() args) {
    ) Ill module-info.iave
                                                      String urlString = "https://www.google.com/";
→ pay20Task
                                                        try {
 > M JRE System Library (JavaSE-17)
                                                            URL url = new URL(urlString);
   v 🎥 com.wipro.assign20
      / FilelOjava
      > III HTTPDemo java
                                                           HttpURLConnection connection = (HttpURLConnection) url.apenConnection();
      : If HTTPExample Java
     > III Personjava
                                                           connection.setRequestMethod("GET");
      › Ill SerilaizationDemo.java
      > III Taskt Java
                                                            int responseCode = connection.getResponseCode();
≥ Day5DSA
                                                            System.out.println("Response Code: " + responseCode);
≥ 

Day7Dsa
≥ SAAssignment

≦ Problems 

■ Javadoc 
□ Declaration 
□ Console ×

lana_day1
                                             minated» HTTPEsample [lava Application] C(Users/vaish,p2/pool/plugirs/org.edipse.just/cpen/dkhotspot.jre.full.win32x86_54_17.0.10.v20240120-1143/jrelpinijavaw.exe (lun 2.
 Response Code: 200
Sq2yaDay2p2
                                         Transfer-Encoding: chunked
null: HTTP/1.1 200 OK
≥ ≥ JavaDay3
Januaday4
                                          Alt-Svc: h3=":443"; ma=2592000,h3-29=":443"; ma=2592000
 ₩ JDBCDuy4
                                         Server: gws
P3P: CP="This is not a P3P policy! See g.co/p3phelp for more info."
Date: Sun, 82 Jun 2024 17:52:18 GMT
≥ IDBCdemoday4
                                          Accept-Ranges: none
```

Task 5: Java Networking and Serialization

Develop a basic TCP client and server application where the client sends a serialized object with 2 numbers and operation to be performed on them to the server, and the server computes the result and sends it back to the client. for eg, we could send 2, 2, "+" which would mean 2 + 2

```
public int getNumber1() {
return number1;
     public int getNumber2() {
return number2;
     public String getOperation() {
return operation;
 }
 package com.wipro.assign20;
 import java.io.ObjectInputStream;
import java.io.ObjectOutputStream;
import java.io.IOException; import
java.net.ServerSocket; import
java.net.Socket;
public class TCPServer {
     public static void main(String[] args) {
         try (ServerSocket serverSocket = new ServerSocket(9876)) {
System.out.println("Server is listening on port 9876");
             while (true) {
                 Socket socket = serverSocket.accept();
new ServerThread(socket).start();
         } catch (IOException e) {
             e.printStackTrace();
         }
     }
class ServerThread extends Thread {
private Socket socket;
     public ServerThread(Socket socket) {
this.socket = socket;
     public void run() {
         try (ObjectInputStream input = new
ObjectInputStream(socket.getInputStream());
              ObjectOutputStream output = new
ObjectOutputStream(socket.getOutputStream())) {
             Data data = (Data) input.readObject();
int result = performOperation(data);
```

```
output.writeObject(result);
output.flush();
         } catch (IOException | ClassNotFoundException e) {
             e.printStackTrace();
         }
     }
     private int performOperation(Data data) {
int number1 = data.getNumber1();
                                          int
number2 = data.getNumber2();
                                     String
operation = data.getOperation();
         switch (operation) {
case "+":
                 return number1 + number2;
case "-":
                 return number1 - number2;
case "*":
                 return number1 * number2;
case "/":
                          if (number2 != 0) {
return number1 / number2;
                 } else {
                     throw new ArithmeticException("Division by zero");
                               default:
                                                         throw new
UnsupportedOperationException("Unsupported operation: " +
operation);
         }
     }
}
package com.wipro.assign20;
import java.io.IOException;
import java.io.ObjectInputStream;
import java.io.ObjectOutputStream;
import java.net.Socket;
public class Client {
     public static void main(String[] args)
          String hostname = "localhost";
int port = 9876;
         try (Socket socket = new Socket(hostname, port);
              ObjectOutputStream output = new
```

```
ObjectOutputStream(socket.getOutputStream());
                             ObjectInputStream input = new
 ObjectInputStream(socket.getInputStream())) {
                           // Send operation data to the server
Data data = new Data(2, 2, "+");
output.writeObject(data);
                                                                                output.flush();
                         // Receive the result from the server
int result = (int) input.readObject();
System.out.println("Result: " + result);
                   } catch (IOException | ClassNotFoundException e) {
                           e.printStackTrace();
                   }
          }
 }
 Output:
eclipse-workspaceWp - Day20Task/src/com/wipro/assign20/TCPServer.java - Eclipse ID
 File Edit Source Refactor Navigate Search Project Run Window
** 🗖 () FilelOjava (i) Serilaizatio. (ii) Personjava (ii) HTTPDerro.java (ii) HTTPExample. (ii) FileNOjava (ii) Datajava (iii) TCPServerjava × (iii) Chientijava
                                  2 a import java.io.ObjectInputStream;
4 import java.io.ObjectOutputStream;
5 import java.io.ObjectOutputStream;
6 import java.io.Obsection;
6 import java.net.ServerSocket;
7 import java.net.ServerSocket;
8 public class TCPServer {
10 public static void main(String[] args) {
11 try (ServerSocket serverSocket = new ServerSocket(9876)) {
12 System.out.println("Server is listening on port 9876");
13
  > M. JRE System Library [JavaSE-17]

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       E FunctionalInterfjava
      2 2 Pair,java
      > III Person,java

    SortPerson.java

       E Swap java
     M module-infojava
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☑ Day20Task

                                                   while (true) {
    Socket socket = serverSocket.accept();
   > ■ JRE System Library [lavaSE-17]
                                                          new ServerThread(socket).start();

    de com.wipro.assign20

    D Clientjava

                                               } catch (IOException e) {
                                       19
20
                                                      e.printStackTrace();
      > Datajava
      > E FiletO.java
                                                  }
                                      21 22 }

    Iž FileNiO java

      ≥ ☑ HTTPDemojava
      ≥ ☑ HTTPExample java
      > 💹 Personjava
                                       24 class ServerThread extends Thread {
      > III SerilaizationDemo java
                                            private Socket socket;
      2 / Taskf.java
       2 TCPServer.java
     @ module-infojava

    Problems 
    ■ Javadoc    Beclaration    Console ×

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                                                                      Popluginslang.eclipse.justj.apenjdk.hotspot.jne.full.win32.x86,64,17.0.10.x20240120-1143/jnelbinljinvaw.ese. (Jun 2, 2024, 11:33:46 PM
  € Day7Osa
                                      Server is listening on port 9876
  ₩ DSAAssignment
  id Emplayee_project
  Java dayt
  JavaDay2p2
```

Task 6: Java 8 Date and Time API

Write a program that calculates the number of days between two dates input by the user.

```
package com.wipro.assign20;
```

```
import java.time.LocalDate;
 import java.time.format.DateTimeFormatter;
import java.time.temporal.ChronoUnit; import
java.util.Scanner;
public class DateApi {
     public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
         DateTimeFormatter formatter =
 DateTimeFormatter.ofPattern("yyyy-MM-dd");
         System.out.print("Enter the first date (yyyy-MM-dd): ");
         String firstDateString = scanner.nextLine();
LocalDate firstDate = LocalDate.parse(firstDateString,
formatter);
         System.out.print("Enter the second date (yyyy-MM-dd): ");
String secondDateString = scanner.nextLine();
         LocalDate secondDate =
LocalDate.parse(secondDateString, formatter);
         long daysBetween = ChronoUnit.DAYS.between(firstDate,
secondDate);
         System.out.println("Number of days between " + firstDate + "
and " + secondDate + " is: " + daysBetween);
}
 Output:
```

```
📮 🛘 🖟 FilelOjava 🖟 Serilaizatio... 🖟 HTTPDemojava 🖟 HTTPExample... 🖟 FileNOjava 🖟 Datajava 🖟 TCPServerjava 🖟 Clientjava 🖟 DateApijava 🗡
                                                                                                                                                      4 import java.time.format.DateTimeFormatter;
5 import java.time.temporal.ChronoUnit;
  > M JRE System Library [JavaSE-17]
                                                                                                                                                      6 import java.util.Scanner;

√ 

B com.wipro.assign19

                                                                                                                                                        8 public class DateApi {
                                                                                                                                                                           public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);
    DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy-MM-dd");
                       > D Pair.java
                       Person java

    SortPerson.java
    SortPerson.java

                         Swap.java
                                                                                                                                                                                               System.out.print("Enter the first date (yyyy-MM-dd): ");
                > 1 module-info.java
                                                                                                                                                                                              String firstDateString = scanner.nextLine();
LocalDate firstDate = LocalDate.parse(firstDateString, formatter);

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              ■ JRE System Library [JavaSE-17]
        ∨ 🅭 src
                                                                                                                                                                                               System.out.print("Enter the second date (yyyy-MM-dd): ");
                String secondDateString = scanner.nextLine();
LocalDate secondDate = LocalDate.parse(secondDateString, formatter);
                       D Client.java
                       Data.java
                                                                                                                                                                                               long daysBetween = ChronoUnit.DAYS.between(firstDate, secondDate);
                       FileIO.java
                       FileNIO iava
                       > I HTTPDemo.java
                                                                                                                                                                                               System.out.println("Number of days between " + firstDate + " and " + secondDate + " is: " + daysBetween);
                       > II HTTPExample.java
                                                                                                                                                                             }

Person.java

SerilaizationDemo.java
                                                                                                                                                   27 }
                       > 1 Task1.iava
                           ☑ TCPServer,java
                                                                                                                                                 Problems @ Javadoc Declaration Console X
                > I module-info.iava
                                                                                                                                                     terminated > DateApi [Java Application] C\Users\vaish\p2\poo\pbugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.10.v20240120-1143\jre\bin\javaw.exe (Jun 2, 2024, 11:38:54 PM
   > 

Day5DSA

Day7Dsa
                                                                                                                                                Enter the first date (yyyy-MM-dd): 2024-06-21
                                                                                                                                               Enter the second date (yyyy-MM-dd): 2023-12-21
Number of days between 2024-06-21 and 2023-12-21 is: -183

    □ DSAAssignment
    □ DSAAssignment

       ≥ Java dav1
  ⇒ 😸 javaDay2
⇒ 👺 JavaDay2p2
```

Task 7: Timezone

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

```
package com.wipro;
import java.time.LocalDateTime;
import java.time.ZoneId;
import java.time.ZonedDateTime;
import java.time.format.DateTimeFormatter;
import java.util.Scanner;
public class TimezoneConverter {
   public static String convertTimeZone(String dateTime, String sourceTimeZone, String
targetTimeZone) {
       DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy-MM-dd HH:mm:ss");
              LocalDateTime localDateTime = LocalDateTime.parse(dateTime, formatter);
       ZoneId sourceZoneId = ZoneId.of(sourceTimeZone);
       ZoneId targetZoneId = ZoneId.of(targetTimeZone);
       ZonedDateTime sourceZonedDateTime = ZonedDateTime.of(localDateTime, sourceZoneId);
       ZonedDateTime targetZonedDateTime = sourceZonedDateTime.withZoneSameInstant(targetZoneId);
       return targetZonedDateTime.format(formatter);
   }
   public static void main(String[] args) {
       Scanner scanner = new Scanner(System.in);
       System.out.print("Enter date and time (yyyy-MM-dd HH:mm:ss): ");
       String dateTime = scanner.nextLine();
```

```
System.out.print("Enter source time zone (e.g., America/New_York): ");
String sourceTimeZone = scanner.nextLine();
System.out.print("Enter target time zone (e.g., Europe/London): ");
String targetTimeZone = scanner.nextLine();
String result = convertTimeZone(dateTime, sourceTimeZone, targetTimeZone);
System.out.println("Converted date and time: " + result);
scanner.close();
}

Output:

| 1 | package com.wipro;
| 2 | import java.time.LocalDateTime;
| 4 | import java.time.LocalDateTime;
| 4 | import java.time.ZoneId;
```

```
5 import java.time.ZonedDateTime;
 6 import java.time.format.DateTimeFormatter;
 7 import java.util.Scanner;
public class TimezoneConverter {
10
        public static String convertTimeZone(String dateTime, String sourceTimeZone, String targetTimeZone) {
11⊖
12
 13
            DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy-MM-dd HH:mm:ss");
 14
 15
 16
            LocalDateTime localDateTime = LocalDateTime.parse(dateTime, formatter);
 17
 18
 19
             ZoneId sourceZoneId = ZoneId.of(sourceTimeZone);
            ZoneId targetZoneId = ZoneId.of(targetTimeZone);
 20
 21
 22
 23
             ZonedDateTime sourceZonedDateTime = ZonedDateTime.of(localDateTime, sourceZoneId);
 24
 25
 26
            ZonedDateTime targetZonedDateTime = sourceZonedDateTime.withZoneSameInstant(targetZoneId);
 27
 28
 29
             return targetZonedDateTime.format(formatter);
30
 31
                                                                                                                            ■ × ¾
🖳 Problems @ Javadoc 🖳 Declaration 📮 Console 🗵
<terminated> okkk [Java Application] C:\Program Files\Java\jdk1.8.0_202\bin\javaw.exe (Jun 4, 2024, 10:06:25 AM - 10:07:10 AM) [pid: 4204]
Enter date and time (yyyy-MM-dd HH:mm:ss): 2024-06-04 15:00:00
Enter source time zone (e.g., America/New_York): America/New_York
Enter target time zone (e.g., Europe/London): Europe/London
Converted date and time: 2024-06-04 20:00:00
```