LogInfo_ error

```
package loggerfile;
//Logger.java
import java.io.File;
import java.io.FileWriter;
import java.io.IOException;
import java.text.SimpleDateFormat;
import java.util.Calendar;

public class Logger {
 private String folder;
 private String file;
 private Integer prevHour;
 private String logFilePath;

 public Logger(String folder, String file)  {
    this.folder = folder;
    this.file = file;
    this.prevHour = null;
    this.logFilePath = null;
}

 private void createNewLogFile(int currentHour) throws IOException {
    File folderFile = new File(folder);
    if (!folderFile.exists()) {
       folderFile.mkdirs();
    }

    if (prevHour == null || !prevHour.equals(currentHour)) {
       prevHour = currentHour;

       // Get current date
       SimpleDateFormat dateFormat = new SimpleDateFormat("yyyyMMdd_");
       String currentDateTime = dateFormat.format(Calendar.getInstance().getTime());

       String fileName = folder + File.separator + file + currentDateTime + currentHour + ".log";
       logFilePath = fileName;

       // Create new log file
       File logFile = new File(fileName);
       if (!logFile.exists()) {
          logFile.createNewFile();
       }
    } else {
       // If the hour is the same as the previous hour, no need to create a new file
       // Log messages will be appended to the existing file
       // This condition will be useful when multiple log messages come in the same hour
       String fileName = folder + File.separator + file + currentHour + ".log";
       logFilePath = fileName;
    }
}

 public void errorLog(Object... arguments) {
    Calendar currentTime = Calendar.getInstance();
    int currentHour = currentTime.get(Calendar.HOUR_OF_DAY);

    try {
       createNewLogFile(currentHour);

       StringBuilder message = new StringBuilder();
       for (Object arg : arguments) {
          message.append(arg).append(" ");
       }

       // Append log message to the file
       FileWriter fileWriter = new FileWriter(logFilePath, true);
       fileWriter.write(currentTime.getTime() + ":" + message + "\n");
       fileWriter.close();
    } catch (IOException e) {
       e.printStackTrace();
    }
}

 public boolean isLogFileCreated() {
      if (logFilePath == null) {
```

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```
        return false;
    } else {
        File logFile = new File(logFilePath);
        return logFile.exists();
    }
  }


  }
```

// Other methods...

.....

```
import loggerfile.Logger;
import java.util.Scanner;

public class ArithmeticException {
    public static void main(String[] args) {
        // Create a Logger instance
        Logger logger = new Logger("new_logs_folder", "ae");

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the first number:");
        int i = sc.nextInt();
        System.out.println("Enter the second number:");
        int j = sc.nextInt();

        try {
            double result = i / j;
            System.out.println("Result: " + result);
        } catch (Exception e) {
            // Log the error using the Logger instance
            logger.errorLog("ArithmeticException occurred: Division by zero");
        }

        if (logger.isLogFileCreated()) {
            System.out.println("Log file created successfully.");
        } else {
            System.out.println("Log file creation failed.");
        }
        sc.close();
    }
}
```

Compile package: D:\Log>javac -d Bin Logger.java Note: then bring created package file in main log file from Bin folder.

Compile and Run programme: D:\Log>javac ArithmeticException.java → D:\Log>java ArithmeticException