

Read / Write Excel file (.xls or .xlsx) using Apache POI

ReadWriteExcelFile.java

```
1  import java.io.FileInputStream;
2  import java.io.FileOutputStream;
3  import java.io.IOException;
4  import java.io.InputStream;
5  import java.util.Iterator;
6
7  import org.apache.poi.hssf.usermodel.HSSFCell;
8  import org.apache.poi.hssf.usermodel.HSSFRow;
9  import org.apache.poi.hssf.usermodel.HSSFSheet;
10 import org.apache.poi.hssf.usermodel.HSSFWorkbook;
11
12 import org.apache.poi.xssf.usermodel.XSSFCell;
13 import org.apache.poi.xssf.usermodel.XSSFRow;
14 import org.apache.poi.xssf.usermodel.XSSFSheet;
15 import org.apache.poi.xssf.usermodel.XSSFWorkbook;
16
17 public class ReadWriteExcelFile {
18
19     public static void readXLSFile() throws IOException
20     {
21         InputStream ExcelFileToRead = new FileInputStream("C:/Test.xls");
22         HSSFWorkbook wb = new HSSFWorkbook(ExcelFileToRead);
23
24         HSSFSheet sheet=wb.getSheetAt(0);
25         HSSFRow row;
26         HSSFCell cell;
27
28         Iterator rows = sheet.rowIterator();
29
30         while (rows.hasNext())
31         {
32             row=(HSSFRow) rows.next();
33             Iterator cells = row.cellIterator();
34
35             while (cells.hasNext())
36             {
37                 cell=(HSSFCell) cells.next();
38
39                 if (cell.getCellType() == HSSFCell.CELL_TYPE_STRING)
40                 {
41                     System.out.print(cell.getStringCellValue()+" ");
42                 }
43                 else if(cell.getCellType() == HSSFCell.CELL_TYPE_NUMERIC)
44                 {
45                     System.out.print(cell.getNumericCellValue()+" ");
46                 }
47                 else
48                 {
49                     //U Can Handel Boolean, Formula, Errors
50                 }
51             }
52             System.out.println();
53         }
54     }
55
56     public static void writeXLSFile() throws IOException {
57
58         String excelFileName = "C:/Test.xls";//name of excel file
59
60         String sheetName = "Sheet1";//name of sheet
```

```

62
63     HSSFWorkbook wb = new HSSFWorkbook();
64     HSSFSheet sheet = wb.createSheet(sheetName) ;
65
66     //iterating r number of rows
67     for (int r=0;r < 5; r++ )
68     {
69         HSSFRow row = sheet.createRow(r);
70
71         //iterating c number of columns
72         for (int c=0;c < 5; c++ )
73         {
74             HSSFCell cell = row.createCell(c);
75
76             cell.setCellValue("Cell "+r+" "+c);
77         }
78     }
79
80     FileOutputStream fileOut = new FileOutputStream(excelFileName);
81
82     //write this workbook to an Outputstream.
83     wb.write(fileOut);
84     fileOut.flush();
85     fileOut.close();
86 }
87
88 public static void readXLSXFile() throws IOException
89 {
90     InputStream ExcelFileToRead = new FileInputStream("C:/Test.xlsx");
91     XSSFWorkbook wb = new XSSFWorkbook(ExcelFileToRead);
92
93     XSSFWorkbook test = new XSSFWorkbook();
94
95     XSSFSheet sheet = wb.getSheetAt(0);
96     XSSFRow row;
97     XSSFCell cell;
98
99     Iterator rows = sheet.rowIterator();
100
101     while (rows.hasNext())
102     {
103         row=(XSSFRow) rows.next();
104         Iterator cells = row.cellIterator();
105         while (cells.hasNext())
106         {
107             cell=(XSSFCell) cells.next();
108
109             if (cell.getCellType() == XSSFCell.CELL_TYPE_STRING)
110             {
111                 System.out.print(cell.getStringCellValue()+" ");
112             }
113             else if (cell.getCellType() == XSSFCell.CELL_TYPE_NUMERIC)
114             {
115                 System.out.print(cell.getNumericCellValue()+" ");
116             }
117             else
118             {
119                 //U Can Handel Boolean, Formula, Errors
120             }
121         }
122         System.out.println();
123     }
124
125 }
126
127 public static void writeXLSXFile() throws IOException {
128
129     String excelFileName = "C:/Test.xlsx";//name of excel file
130
131     String sheetName = "Sheet1";//name of sheet
132
133     XSSFWorkbook wb = new XSSFWorkbook();
134     XSSFSheet sheet = wb.createSheet(sheetName) ;
135

```

```

136         //iterating r number of rows
137         for (int r=0;r < 5; r++ )
138         {
139             XSSFRow row = sheet.createRow(r);
140
141             //iterating c number of columns
142             for (int c=0;c < 5; c++ )
143             {
144                 XSSFCell cell = row.createCell(c);
145
146                 cell.setCellValue("Cell "+r+" "+c);
147             }
148         }
149
150         FileOutputStream fileOut = new FileOutputStream(excelFileName);
151
152         //write this workbook to an Outputstream.
153         wb.write(fileOut);
154         fileOut.flush();
155         fileOut.close();
156     }
157
158     public static void main(String[] args) throws IOException {
159
160         writeXLSFile();
161         readXLSFile();
162
163         writeXLSXFile();
164         readXLSXFile();
165
166     }
167
168 }

```



She110ck commented on 13 Aug 2015

thank you ;)



bibekkumar005 commented on 28 Aug 2015

please write the dependencyhaving trouble when including POI jars for hssf and xssf



hermanwhyd commented on 8 Sep 2015

@bibekkumar005 may be this is you needed:

```

<!-- POI : Excel library -->
<dependency>
    <groupId>org.apache.poi</groupId>
    <artifactId>poi</artifactId>
    <version>${poi.version}</version>
</dependency>
<dependency>
    <groupId>org.apache.poi</groupId>
    <artifactId>poi-ooxml</artifactId>
    <version>${poi.version}</version>
</dependency>

```

please write the dependencyhaving trouble when including POI jars for hssf and xssf



vijiniL commented on 30 Dec 2015

Thank you :)



willykraisler commented on 25 Jan 2016

Thank you man 👍



SantiMA10 commented on 4 Feb 2016

very helpful



Sourav0512 commented on 15 Mar 2016

Type mismatch: cannot convert from Iterator to Descriptor.Iterator getting this error



nguyendangnghiem commented on 17 Mar 2016

+1 thank you !!!



zhvaleuskaya commented on 18 Apr 2016

thank you



hendisantika commented on 28 Apr 2016

Thank you very much.
It helps me a lot.
It save my time.



CodeMines commented on 2 May 2016

Which version of poi you have used



ShreeshaN commented on 5 May 2016

Thanks man !



ouyang111 commented on 20 May 2016

thanks



ouyang111 commented on 20 May 2016

very helpful



jcgofredo commented on 25 May 2016

thank you! 👍



pontiyaraja commented on 26 May 2016

Thank you



ShanikaEdiriweera commented on 28 May 2016

.xlsx reader and writer is not working.
java.lang.ClassNotFoundException: org.apache.xmlbeans.XmlObject



adilearner commented on 7 Sep 2016

It was helpful.....do u have any code to read xls file using Apache POI Streaming (SXSSF) for Reading??

-Thanks



robin2919 commented on 16 Nov 2016

Can you please provide the link for jar files



jalvarada commented on 21 Nov 2016 • edited ▼

Does anyone why this error shows up when I run the file?

Error: Could not find or load main class excel.Excel

C:\Users\jos\AppData\Local\NetBeans\Cache\8.2\executor-snippets\run.xml:53: Java returned: 1

BUILD FAILED (total time: 0 seconds)



aakashsinghec90 commented on 10 Apr 2017 • edited ▼

@ShanikaEdiriweera: Please download the dependency for XMLbeans too.



tayorh27 commented on 5 May 2017

Please what is the full dependency sure has this *compile 'com.mcxiaoke.volley:library:1.0.17'???*



mvictorl commented on 5 May 2017

<https://mvnrepository.com/artifact/org.apache.poi>



mvictorl commented on 5 May 2017

Please, how read data if **some** cells are merged (by row)?



sadev5264 commented on 28 May 2017

Thank you !!



guptaankit95 commented on 7 Jun 2017

not able to pass ExcelFileToRead into the XSSFWorkbook. showing error (remove argument to match xssfworkbook) please help



ranjithkumarrm commented on 5 Jul 2017

Do we need MS Excel Application to be installed in local/server ,To run the code working ??



12342222 commented on 20 Jul 2017 • edited ▼

Hi Sir/Madam

xlsx(Excel) format file Read content issues that attaching file from Email and store into local drive, Please any help on this and that really appreciated.

Below java code now we are using

```
String contentType = message.getContentType();

String attachFiles = "";

// String saveDirectory = (String) resources.get(SystemRqstAppConstants.WebConstants.CUSTOMERITEMVENDORPO_PATH);
String saveDirectory = "D:/ResumeFiles/";
List errorsList= null;
String messageContent = "";
logger.info(":::Timecards Auto Update before Attchments:::");
if (contentType.contains("multipart")) {
// content may contain attachments
String client="";
if(subject.contains("PFIZER") || subject.contains("Pfizer") || subject.contains("pfizer"))
client="Pfizer";
else if(subject.contains("CSC") || subject.contains("Csc") || subject.contains("csc"))
client="CSC";
logger.info("Timecards Auto Update client name: "+client);
Multipart multiPart = (Multipart) message.getContent();
int numberOfParts = multiPart.getCount();
for (int partCount = 0; partCount < numberOfParts; partCount++) {
MimeBodyPart part = (MimeBodyPart) multiPart.getBodyPart(partCount);
if (Part.ATTACHMENT.equalsIgnoreCase(part.getDisposition())) {
// this part is attachment
fileName = part.getFileName();
attachFiles += fileName + ", ";
saveDirectory = saveDirectory+client+"/";
File folder = new File(saveDirectory);
if(!folder.exists())
folder.mkdir();
String destFilePath = saveDirectory+fileName;
logger.info("Timecards Auto Update destFilePath: "+destFilePath);
FileOutputStream fileOutputStream = new FileOutputStream(destFilePath);
```

```
DataInputStream(input);

in.read(abyte0) != -1){

fileOutputStream.write(abyte0, 0, length);
```

```
byte abyte0[] = new byte[4096];
int length=0;
input = part.getInputStream();
DataInputStream in = new

while ((in != null) && ((length =

}
input.close();
in.close();
```

```
// my_xlsx_workbook.write(fileOutputStream);
fileOutputStream.flush();
fileOutputStream.close();
```

Thanks in Advance
Rama



prs978 commented on 25 Jul 2017

unable to save as the xlsx file by using the Apache POI Objects and other java logic and please help on this that really great appreciation.
Regards
Rama



amisiuryk commented on 10 Aug 2017

@prs978 To create xlsx file you have to use XSSF**** files instead of HSSF*

ramutha commented on 19 Sep 2017



Hi.

I am facing this error while executing the above code.

```
Cell 0 0 Cell 0 1 Cell 0 2 Cell 0 3 Cell 0 4
Cell 1 0 Cell 1 1 Cell 1 2 Cell 1 3 Cell 1 4
Cell 2 0 Cell 2 1 Cell 2 2 Cell 2 3 Cell 2 4
Cell 3 0 Cell 3 1 Cell 3 2 Cell 3 3 Cell 3 4
Cell 4 0 Cell 4 1 Cell 4 2 Cell 4 3 Cell 4 4
```

```
Exception in thread "main" java.lang.NoClassDefFoundError: org/openxmlformats/schemas/spreadsheetml/x2006/main/CTSheet
at com.ReadWrite.Excel.ReadWriteExcelFile.writeXLSXFile(ReadWriteExcelFile.java:135)
at com.ReadWrite.Excel.ReadWriteExcelFile.main(ReadWriteExcelFile.java:165)
Caused by: java.lang.ClassNotFoundException: org.openxmlformats.schemas.spreadsheetml.x2006.main.CTSheet
at java.net.URLClassLoader.findClass(Unknown Source)
at java.lang.ClassLoader.loadClass(Unknown Source)
at sun.misc.Launcher$AppClassLoader.loadClass(Unknown Source)
at java.lang.ClassLoader.loadClass(Unknown Source)
... 2 more
```



arvindbakaya commented on 19 Sep 2017

I get the below error while running this code :

```
Exception in thread "main" java.lang.NoSuchFieldError: RETURN_NULL_AND_BLANK
at org.apache.poi.xssf.usermodel.XSSFWorkbook.(XSSFWorkbook.java:147)
at excelExportAndFileIO.ReadExcelFile.writeXLSXFile(ReadExcelFile.java:136)
at excelExportAndFileIO.ReadExcelFile.main(ReadExcelFile.java:166)
```



arjunpatelcs13 commented on 5 Oct 2017

great Thanks



jenniferzoe123 commented on 17 Oct 2017

I am loading a large 5000 row excell file with extention .xlsx, it takes more time maybe more than 10 mins, how to dignose this issue, i am using your above function readXLSXFile() , Plz help.



vikassun commented on 8 Nov 2017

Hi Madan,
Very helpful Example. Thanks a lot.

Please help me solving one issue i am facing while incorporating your code in one of my project!!

--> Reading .xlsx file
code does work when i run this code from independent fresh dynamic web project. But it does not work when i run from my existing project!

I am working on some client Project where it was required to have this functionality of reading .xlsx file where i tried incorporating this code but it cries with ERROR!! When i placed reading .xls code it is perfectly working.

Note: a) I have used same POI jar in my independent dynamic web project and in client Project.
b) When i copied and run .xls code it does work in Client Project as well whereas .xlsx code does not

ERROR Message I get

```
java.lang.NoSuchFieldError: OOXML_FILE_HEADER
at org.apache.poi.poifs.filesystem.FileMagic.(FileMagic.java:40)
at org.apache.poi.openxml4j.opc.internal.ZipHelper.openZipStream(ZipHelper.java:208)
at org.apache.poi.openxml4j.opc.ZipPackage.(ZipPackage.java:98)
at org.apache.poi.openxml4j.opc.OPCPackage.open(OPCPackage.java:324)
at org.apache.poi.util.PackageHelper.open(PackageHelper.java:37)
at org.apache.poi.xssf.usermodel.XSSFWorkbook.(XSSFWorkbook.java:295)
at com.ibm.ericsson.pdm.webapp.action.SearchProductAction.baseExecute(SearchProductAction.java:167)
at com.ibm.ericsson.pdm.webapp.BASEAction.execute(BASEAction.java:100)
at org.apache.struts.chain.commands.servlet.ExecuteAction.execute(ExecuteAction.java:58)
at org.apache.struts.chain.commands.AbstractExecuteAction.execute(AbstractExecuteAction.java:67)
at org.apache.struts.chain.commands.ActionCommandBase.execute(ActionCommandBase.java:51)
at org.apache.commons.chain.impl.ChainBase.execute(ChainBase.java:190)
at org.apache.commons.chain.generic.LookupCommand.execute(LookupCommand.java:304)
at org.apache.commons.chain.impl.ChainBase.execute(ChainBase.java:190)
at org.apache.struts.chain.ComposableRequestProcessor.process(ComposableRequestProcessor.java:283)
at org.apache.struts.action.ActionServlet.process(ActionServlet.java:1913)
at org.apache.struts.action.ActionServlet.doGet(ActionServlet.java:449)
at javax.servlet.http.HttpServlet.service(HttpServlet.java:624)
at javax.servlet.http.HttpServlet.service(HttpServlet.java:731)
at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:303)
at org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:208)
at org.apache.tomcat.websocket.server.WsFilter.doFilter(WsFilter.java:52)
at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:241)
at org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:208)
at com.ibm.ericsson.pdm.webapp.AuthenticationFilter.doFilter(AuthenticationFilter.java:125)
at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:241)
at org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:208)
at org.apache.catalina.core.StandardWrapperValve.invoke(StandardWrapperValve.java:218)
at org.apache.catalina.core.StandardContextValve.invoke(StandardContextValve.java:110)
at org.apache.catalina.authenticator.AuthenticatorBase.invoke(AuthenticatorBase.java:506)
at org.apache.catalina.core.StandardHostValve.invoke(StandardHostValve.java:169)
at org.apache.catalina.valves.ErrorReportValve.invoke(ErrorReportValve.java:103)
at org.apache.catalina.valves.AccessLogValve.invoke(AccessLogValve.java:962)
at org.apache.catalina.core.StandardEngineValve.invoke(StandardEngineValve.java:116)
at org.apache.catalina.connector.CoyoteAdapter.service(CoyoteAdapter.java:445)
at org.apache.coyote.http11.AbstractHttp11Processor.process(AbstractHttp11Processor.java:1115)
at org.apache.coyote.AbstractProtocol$AbstractConnectionHandler.process(AbstractProtocol.java:637)
at org.apache.tomcat.util.net.JIoEndpoint$SocketProcessor.run(JIoEndpoint.java:316)
at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1145)
at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:615)
at org.apache.tomcat.util.threads.TaskThread$WrappingRunnable.run(TaskThread.java:61)
at java.lang.Thread.run(Thread.java:745)
```

I am using apache POI 3.17 lib..

My doubt : its a struts 1 Project , might be some where some jars are clashed

Pls help



chintamahesh commented on 22 Nov 2017

Many Thanks



callicoder commented on 27 Dec 2017 • edited ▼

This is great. But It's better to use a `WorkbookFactory` to create a `Workbook` instance. This way, you won't need to use format specific classes like `HSSFWorkbook` and `XSSFWorkbook` and your program will work for both `.xls` and `.xlsx` files without writing separate methods.

```
private void readExcelFile(filePath) {
    Workbook workbook = WorkbookFactory.create(new File(filePath));
    Sheet sheet = workbook.getSheetAt(0);
    DataFormatter dataFormatter = new DataFormatter();
    sheet.forEach(row -> {
        row.forEach(cell -> {
            String cellValue = dataFormatter.formatCellValue(cell);
            System.out.print(cellValue + "\t");
        });
    });
}
```



```
        System.out.println();
    });
}
```

The complete code can be found at [The CalliCoder Blog](#).



baofengyv commented on 31 Jan

Thank you!



XxZhang2017 commented on 3 Feb

I add the xmlbeans-2.60.jar. But I get this error. WARNING: Illegal reflective access by org.apache.poi.util.DocumentHelper (file:/Users/zhangxue/java_lib/poi-3.17/poi-ooxml-3.17.jar) to method com.sun.org.apache.xerces.internal.util.SecurityManager.setEntityExpansionLimit(int)



SoumiaMokrane commented on 11 Feb

Slr;

I have a problem in my code :

Exception in thread "AWT-EventQueue-0" org.apache.poi.poifs.filesystem.OfficeXmlFileException: The supplied data appears to be in the Office 2007+ XML. You are calling the part of POI that deals with OLE2 Office Documents. You need to call a different part of POI to process this data (eg XSSF instead of HSSF)

this is my code , please help me

`try {

//here f : is file generate from JTextField

InputStream fis = new FileInputStream(f);

HSSFWorkbook workbook= new HSSFWorkbook(fis);

HSSFSheet sheet = workbook.getSheetAt(0);

FormulaEvaluator forlulaEvaluator = workbook.getCreationHelper().createFormulaEvaluator();

for (Row row : sheet) {

for (Cell cell : row) {

switch(forlulaEvaluator.evaluateInCell(cell).getCellType()){

case Cell.CELL_TYPE_NUMERIC:

System.out.println(cell.getNumericCellValue()+"\t\t");

break;

case Cell.CELL_TYPE_STRING:

System.out.println(cell.getStringCellValue()+"\t\t");

break;

}

```
    }
```

```
    }
```

```
} catch (FileNotFoundException ex) {
```

```
    Logger.getLogger(Main.class.getName()).log(Level.SEVERE, null, ex);
```

```
} catch (IOException ex) {
```

```
    Logger.getLogger(Main.class.getName()).log(Level.SEVERE, null, ex);
```

```
}`
```



SoumiaMokrane commented on 11 Feb

Thanks

I fond a solution :)



kkgouda commented 26 days ago

Hi,

Please share all the apache poi dependency maven.