

## POM and POI Structure

# What is Apache POI?

**Apache POI**, where **POI stands for** (*Poor Obfuscation Implementation*) is an *API* that offers a collection of Java libraries that helps us to *read, write, and manipulate* different Microsoft files such as *excel sheets, power-point, and word files*.

## How to Read/Write Data from Excel File: Selenium POI

File IO is a critical part of any software process. We frequently create a file, open it & update something or delete it in our Computers. Same is the case with Selenium Automation. We need a process to manipulate files with Selenium. Java provides us different classes for File Manipulation with Selenium. In this tutorial, we are going to learn how can we read and write on Excel file with the help of Java IO package and Apache POI library.

## Apache POI in Selenium

The **Apache POI in Selenium** is a widely used API for selenium data driven testing. It is a POI library written in Java that gives users an API for manipulating Microsoft documents like .xls and .xlsx. Users can easily create, modify and read/write into excel files. POI stands for “Poor Obfuscation Implementation.”

## Exporting Excel

### How to handle excel file using POI (Maven POM Dependency)



To Read and Write Excel file in Java, Apache provides a very famous library POI. This library is capable enough to read and write both **XLS** and **XLSX** file format of Excel.

To read **XLS** files, an **HSSF** implementation is provided by POI library.

To read **XLSX**, **XSSF** implementation of **POI library** will be the choice. Let's study these implementations in detail.

## Installation -

you can simply download the latest version POI jars  
from <http://poi.apache.org/download.html> & download the latest zip file

**Apache POI - Download Release Artifacts**

**Available Downloads**

This page provides instructions on how to download and verify the Apache POI release artifacts. There are different versions available:

- [The latest stable release is Apache POI 4.1.1](#)
- [Nightly/CI builds are available as well](#)
- [Archives of all prior releases](#)

Apache POI releases are available under the [Apache License, Version 2.0](#). See the NOTICE file contained in each release. To ensure that you have downloaded the true release you should [verify the integrity](#) of the files using the signatures a

**20 October 2019 - POI 4.1.1**

The Apache POI team is pleased to announce the release of Apache POI 4.1.1. This release includes several new features and bug fixes. A summary of changes is available in the [change log](#). People interested in the POI source release as well as the pre-built binaries are listed below. Pre-built versions of all releases are listed below.

**Binary Distribution**

- [poi-bin-4.1.1-20191023.tar.gz](#) (28.13 MB, [signature \(.asc\)](#), checksum: [SHA-256](#), [SHA-512](#))
- [poi-bin-4.1.1-20191023.zip](#) (38.57 MB, [signature \(.asc\)](#), checksum: [SHA-256](#), [SHA-512](#))

**Source Distribution**

- [poi-src-4.1.1-20191023.tar.gz](#) (96.93 MB, [signature \(.asc\)](#), checksum: [SHA-256](#), [SHA-512](#))
- [poi-src-4.1.1-20191023.zip](#) (101.23 MB, [signature \(.asc\)](#), checksum: [SHA-256](#), [SHA-512](#))

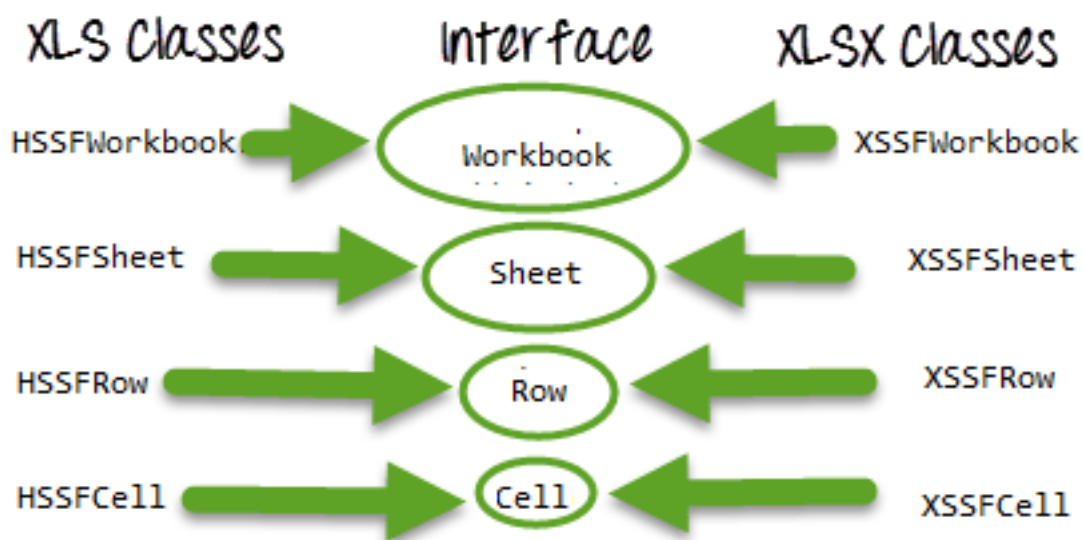
**Nightly Builds**

When you download the zip file for this jar, you need to unzip it and add these all jars to the class path of your project.

Name	Date modified	Type	Size
docs	10/16/2019 1:47 AM	File folder	
lib	10/16/2019 1:47 AM	File folder	
ooxml-lib	10/16/2019 1:47 AM	File folder	
LICENSE	10/16/2019 1:31 AM	File	30 KB
NOTICE	10/16/2019 1:31 AM	File	2 KB
poi-4.1.1.jar	10/16/2019 1:46 AM	Executable Jar File	2,762 KB
poi-examples-4.1.1.jar	10/16/2019 1:46 AM	Executable Jar File	426 KB
poi-excelant-4.1.1.jar	10/16/2019 1:46 AM	Executable Jar File	31 KB
poi-ooxml-4.1.1.jar	10/16/2019 1:46 AM	Executable Jar File	1,817 KB
poi-ooxml-schemas-4.1.1.jar	10/16/2019 1:46 AM	Executable Jar File	7,700 KB
poi-scratchpad-4.1.1.jar	10/16/2019 1:46 AM	Executable Jar File	1,759 KB
ooxml-lib folder			
curvesapi-1.06.jar	10/16/2019 1:33 AM	Executable Jar File	110 KB
xmlbeans-3.1.0.jar	10/16/2019 1:33 AM	Executable Jar File	2,520 KB
lib folder			
activation-1.1.1.jar	10/16/2019 1:33 AM	Executable Jar File	68 KB
commons-codec-1.13.jar	10/16/2019 1:33 AM	Executable Jar File	337 KB
commons-collections4-4.4.jar	10/16/2019 1:33 AM	Executable Jar File	735 KB
commons-compress-1.19.jar	10/16/2019 1:33 AM	Executable Jar File	601 KB
commons-logging-1.2.jar	10/16/2019 1:33 AM	Executable Jar File	61 KB
commons-math3-3.6.1.jar	10/16/2019 1:33 AM	Executable Jar File	2,162 KB
jaxb-api-2.3.1.jar	10/16/2019 1:33 AM	Executable Jar File	126 KB
jaxb-core-2.3.0.1.jar	10/16/2019 1:33 AM	Executable Jar File	249 KB
jaxb-impl-2.3.2.jar	10/16/2019 1:33 AM	Executable Jar File	994 KB
junit-4.12.jar	10/16/2019 1:33 AM	Executable Jar File	308 KB
log4j-1.2.17.jar	10/16/2019 1:33 AM	Executable Jar File	479 KB

Copy all these files

## Classes and Interfaces in POI:



### Classes and Interfaces in Apache POI

Following is a list of different Java Interfaces and classes in **POI** for reading **XLS** and **XLSX** file-

- **Workbook:** XSSFWorkbook and HSSFWorkbook classes implement this interface.

- **XSSFWorkbook:** Is a class representation of XLSX file.
- **HSSFWorkbook:** Is a class representation of XLS file.
- **Sheet:** XSSFSheet and HSSFSheet classes implement this interface.
- **XSSFSheet:** Is a class representing a sheet in an XLSX file.
- **HSSFSheet:** Is a class representing a sheet in an XLS file.
- **Row:** XSSFRow and HSSFRow classes implement this interface.
- **XSSFRow:** Is a class representing a row in the sheet of XLSX file.
- **HSSFRow:** Is a class representing a row in the sheet of XLS file.
- **Cell:** XSSFCell and HSSFCell classes implement this interface.
- **XSSFCell:** Is a class representing a cell in a row of XLSX file.
- **HSSFCell:** Is a class representing a cell in a row of XLS file.

## Read/Write operation-

For our example, we will consider below given Excel file format

