FILE HANDLING

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Contents

- Reading a text file
- Writing into a text file
- Reading a properties file
- Understanding apache poi
- Reading from Excel file
- Writing into Excel file

Reading a text file

```
File file = new File(“<file_path>");
Scanner sc = new Scanner(file);
while(sc.hasNextLine()){
        System.out.println(sc.nextLine());
}
sc.close();
```

Writing into text file

```
String content = "This is the content of output file";
FileWriter     fw = new FileWriter(<output_file_path>);
BufferedWriter       bw = new BufferedWriter(fw);
bw.write(content);
bw.close();
fw.close();
```

Reading a properties file

File srcfile = new File(“<file_path>");

InputStream inStr = new FileInputStream(srcfile);

Using Properties class:

Properties prop = new Properties();

prop.load(inStr);

String str = prop.getProperty("browser"); – To get the value associated with ***browser*** key.

Understanding apache poi

- Apache POI is Java API for reading and writing Excel files in both formats:

- XLS (Excel 2003 and earlier) ---- HSSF
- XLSX (Excel 2007 and later) ---- XSSF

- Jars required:

- poi-VERSION.jar ---- for both xls and xlsx file
- poi-ooxml-VERSION.jar ---- only for xlsx file
- poi-ooxml-schemas-VERSION.jar ---- only for xlsx file
- xmlbeans-VERSION.jar ---- only for xlsx file
- commons-collections4.jar --- for writing

Understanding apache poi(Contd.)

- Interfaces:
  - Workbook
  - Sheet
  - Row
  - Cell

- Each Interface have two implementation classes with prefix as HSSF and XSSF.
- A Workbook can have multiple Sheet.
- A Sheet can have multiple Row.
- A Row can have multiple Cell.

Workbook API

- Sheet getSheet(String name)
- Sheet getSheetAt(int index)
- int getSheetIndex(String name)
- String getSheetName(int sheetIndex)
- int getNumberOfSheets()

- Sheet createSheet(sheetname)
- void write(OutputStream stream)

Sheet API

- String getSheetName()
- Row getRow(int rownum)
- int getPhysicalNumberOfRows()
- int getLastRowNum()

- Row createRow(int rownum)

Row API

- Cell getCell(int cellnum)
- int getRowNum()
- int getPhysicalNumberOfCells()
- short getLastCellNum()

- Cell createCell(int column)
- Cell createCell(int column, CellType type)

Cell API

- int getCellType()
- CellType getCellTypeEnum()
- boolean getBooleanCellValue()
- double getNumericCellValue()
- String getStringCellValue()
- CellAddress getAddress()

- void setCellValue(boolean value)
- void setCellValue(double value)
- void setCellValue(String value)

Cell API(Contd.)

- static int CELL_TYPE_BOOLEAN
- static int CELL_TYPE_NUMERIC
- static int CELL_TYPE_STRING

- CellType
- BOOLEAN
- NUMERIC
- STRING
- BLANK
- FORMULA
- ERROR

Reading from Excel

```
File srcfile = new File(excelFilePath);
InputStream inStr = new FileInputStream(srcfile);
Workbook workbook = null;
if (excelFilePath.endsWith("xlsx"))
        workbook = new XSSFWorkbook(inStr);
else if (excelFilePath.endsWith("xls"))
        workbook = new HSSFWorkbook(inStr);
Sheet sheet = workbook.getSheet("Sheet1");
Row row1 = sheet.getRow(0);
Cell cellA1 = row1.getCell(0);
```

Reading from Excel(contd.)

```
switch(cell.getCellType()) {
        case Cell.CELL_TYPE_STRING:
                System.out.print(cell.getStringCellValue());
                break;
        case Cell.CELL_TYPE_BOOLEAN:
                System.out.print(cell.getBooleanCellValue());
                break;
        case Cell.CELL_TYPE_NUMERIC:
                System.out.print(cell.getNumericCellValue());
                break;
}
```

Writing into Excel file

```
File targetFile = new File(excelFilePath);
OutputStream out = new FileOutputStream(targetFile);
Workbook workbook = null;
if (excelFilePath.endsWith("xlsx"))
        workbook = new XSSFWorkbook();
else if (excelFilePath.endsWith("xls"))
        workbook = new HSSFWorkbook();
Sheet sheet = workbook.createSheet(“outputSheet");
int rowCount=0; int colCount=0;
```

Writing into Excel file(contd.)

```
Row row = sheet.createRow(++rowCount);
Cell cell = row.createCell(++colCount);
cell.setCellValue("Ram");
cell = row.createCell(++colCount);
cell.setCellValue(98); colCount=0;
row = sheet.createRow(++rowCount);
cell = row.createCell(++colCount);
cell.setCellValue("Shyam");
cell = row.createCell(++colCount);
cell.setCellValue(97);
workbook.write(out);
```