Number Representation on Spreadsheet-I

Introduction to Spreadsheet

Course: Master of Arts (Hindi)
Course Name: Computer and Information Technology
Course Code: HIND4014
Semester: II
Session: 2019-20

Mr. Joynath Mishra
Assistant Professor (Guest)
Department of Computer Science and Information Technology

Mahatma Gandhi Central University
Bihar, INDIA

Outline

M3: Representation
on Spreadsheet-I

Mr. J. Mishra
MGCUB, INDIA

Objectives

Objectives

- Description of Spreadsheet, Workbook, Worksheet
- Study on Workbook management and manipulation
- Study on document protection

Introduction

Introduction

- Spreadsheet is a special type of application software which store, analyze the data in tabular format.
- Spreadsheet documents are called as workbook and pages inside it called as worksheet.
- The worksheet contains the large number of rows and column to store data in tabular format. In this tabular storage page, each smallest room contains a specific information and called as cell.
- Spreadsheet application software Libre Office Calc v6.2 has 2^{10} or 1024 number of columns i.e. AMJ and 2^{20} or $1,048,576$ number of rows in a single sheet.
- Spreadsheet application software Microsoft Excel 2019 has 2^{14} or $16,384$ number of columns i.e. XFD and 2^{20} or $1,048,576$ number of rows in a single sheet.

Importance

- The similar form of data (raw information) based on data attribute, or information could be stored in record form, where column wise similar attribute are stored and row wise samples (individual/each person) are changed.

- Due to similarity of data attribute(property), only row wise searching could reach us to the required sample.

- Data retrieve are very easy compared to the other non-tabular formatted application softwares as Word/Writer. Though, these softwares could provide the partial table creation capability.

- Whole spreadsheet are loaded for first time whenever saved datasheet are opened, hence, it may take large time for large volume of data. The loading of whole data simultaneously also reduces the working capability of the application platform compared to MySQL, Oracle database.

M3: Representation
on Spreadsheet-I

Mr. J. Mishra
MGCUB, INDIA

Objectives

Introduction

Importance

Softwares

File Extension

LibreOffice Calc

Acquinted Spreadsheet
Workbook Management
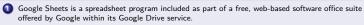Worksheet Manipulation
Document Protection

Exercise

References

Spreadsheet Softwares[1]

Microsoft Office: Excel

- It is developed by Microsoft for Windows, macOS, Android. It facilatates calculation, graphing tools, pivot tables, and a macro programming in Visual Basic prigramming language.

Libre Office: Calc

- It is a open source office productivity software suite. After the OpenOffice.org (developed by IBM Lotus Symphony), LibreOffice Calc has improved many tools and facilatates large calculations in spreadsheet.

Google Docs: Sheets

1. Google Sheets is a spreadsheet program included as part of a free, web-based software office suite offered by Google within its Google Drive service.

WPS Office: Excel

1. WPS(Writer, Presentation and Spreadsheets) Office is an office suite for Microsoft Windows, macOS, Linux, iOS and Android, developed by Zhuhai-based Chinese software developer Kingsoft. Specially used on Android OS.

M3: Representation on Spreadsheet-I

Mr. J. Mishra
MGCUB, INDIA

Objectives

Introduction

Importance

Softwares

File Extension

LibreOffice Calc

Acquinted Spreadsheet
Workbook Management
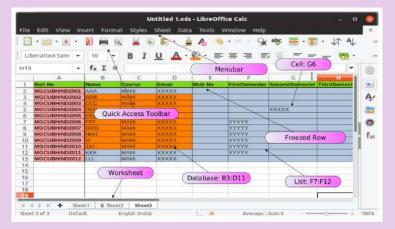Worksheet Manipulation
Document Protection

Exercise

References

File Extension[1]

eXceL Spreadsheet (XLS)

- Microsoft Excel workbook file extension. This file format is known as the Binary Interchange File Format (BIFF).

XLSX

- XLSX is a file extension for an open XML spreadsheet file format used by Microsoft Excel. Microsoft introduced the open XML standard to Microsoft Office in 2007 after a push from business users who saw the value in an open file format for transferring data between applications and other areas of working with the files. This file format available after Microsoft Office 2007 package.

Comma Separated Values (CSV)

- Data are stored in a text file separated by comma or any special character (in advance case) and could be opened by any spreadsheet software or text editor. This file format mainly used by hardware oriented data collectin devices for easy to acces.

Portable Document Format (PDF)

- It was developed by Adobe in the 1990s to present documents, including text formatting and images, in a manner independent of application software, hardware, and operating systems. Based on the PostScript language, each PDF file encapsulates a complete description of a fixed-layout flat document, including the text, fonts, vector graphics, raster images and other information needed to display it.

Introduction

- LibreOffice is a free and powerful office suite, and a successor to OpenOffice.org (commonly known as OpenOffice).
- LibreOffice Calc files are called workbook which contails number of spreadsheets and actual informations are stored inside the cells of a single spreadsheet.
- It stores the spreadsheet document with ODS extension.

M3: Representation
on Spreadsheet-I

Mr. J. Mishra
MGCUB, INDIA

Objectives

Introduction

Importance

Softwares

File Extension

LibreOffice Calc
Acquinted Spreadsheet
Workbook Management
Worksheet Manipulation
Document Protection

Exercise

References

Acquinted Spreadsheet

Figure 1: LibreOffice Calc spreadsheet window description

Workbook Management

Workbook Management

- Document creation
- Document saving
- Document renamimg
- Insert sheet in workbook
- Worksheet full screen view

Worksheet Manipulation

Worksheet Formatting

- Text font, size, alignments, text colors formatting
- Formatting cells with different data formats
- Set borders to cells
- Set foregroung background colors of cells
- Paste special(transpose, paste linked formula)
- Comments on cells
- Data sorting

Worksheet Proofing

- Autofill Feature
- Auto Correct
- Data Validation
- Auto Complete

Document Protection

Document Protection

- Workbook Protection
- Worksheet Protection

Workbook Protection

Create document → Store and modify information → File menu → Save Workbook → Save with password.

Worksheet Protection

Create document → Store Information → Select Worksheet to be protected → Tools menu → Protect Sheet → Set password and permissions → Save whole document.

- What is spreadsheet? Give some software names of it.
- What are the benefits of spreadsheet softwares?
- Describe requirement of spreadsheet software over word/writer software.
- What is the difference between workbook and worksheet?

References I

www.wikipedia.org. [Online]. Available: www.wikipedia.org

https://help.libreoffice.org/. [Online]. Available: https://help.libreoffice.org/

M. J. Satish Jain, Shashank Jain, *IT Tools and Applications*. BPB Publications, 2003.

Get in touch via...

+91 9046174189

jaynath4025@gmail.com

Thank You...