

Practical Work 4: Free Spreadsheets and Presentations

Objective

At the end of this practical work, students should be able to:

- Use LibreOffice Calc to create and manage spreadsheets.
- Apply formulas and functions to analyze data.
- Create and customize charts.
- Design a presentation using LibreOffice Impress.
- Understand the compatibility between OpenDocument formats and Microsoft Office formats.

Part 1: Advanced Use of LibreOffice Calc

Step 1: Open the Software

- Open LibreOffice.
- Click on Calc (Spreadsheet) to create a new spreadsheet.

Step 2: Create a Data Table

Create the following table:

| Student | Score 1 | Score 2 | Score 3 |
|---------|---------|---------|---------|
| Ahmed | 12 | 14 | 13 |
| Sara | 15 | 16 | 14 |
| Lina | 10 | 11 | 12 |
| Karim | 17 | 15 | 16 |

Add two additional columns:

- Total
- Average

Step 3: Use Formulas

In the Total column, type the formula:

```
=SUM(B2:D2)
```

Copy the formula for the other rows.

(Drag the small square at the bottom-right corner of the cell down to E5)

In the Average column, type:

```
=AVERAGE(B2:D2)
```

Copy the formula for the other students.

(Drag the small square at the bottom-right corner of the cell down to E5)

Step 4: Find Maximum and Minimum Values

Below the table, calculate:

Maximum value

```
=MAX(B2:D5)
```

Minimum value

```
=MIN(B2:D5)
```

Step 5: Create a Chart

- Select the columns Student and Average.
- Click Insert → Chart.
- Choose a Bar Chart or Pie Chart.
- Add:
 - Chart title
 - Axis labels
 - Legend

Step 6: Save the File

- Click File → Save As.
- Save the file in `.ods` format.
- Also save it in `.xlsx` format.
- Compare the compatibility between the two formats.

Part 2: Creating a Presentation with LibreOffice Impress

Step 1: Open Impress

- Open LibreOffice Impress.
- Choose a simple template.

Step 2: Create the Slides

Create a presentation with 5 slides.

Slide 1 – Title Slide

Title: Free and Open Source Software

Student name.

Slide 2 – Definition

Explain what Free Software / Open Source Software means.

Slide 3 – Examples of Free Software

- Linux
- LibreOffice
- Firefox
- GIMP

Slide 4 – Advantages

- Free to use
- Open source code
- Security
- Collaboration and community support

Slide 5 – Conclusion

Write a short conclusion about the importance of free software.

Step 3: Add Visual Elements

- Insert at least one image.
- Add slide transitions.
- Add text animations.

Step 4: Save the Presentation

- Save the file in `.odp` format.
- Also export it in `.pptx` format.