Unit 1: Digital Documentation (Advanced) — LibreOffice Writer

Practical 1: Create and Apply Built-in Paragraph & Character Styles

1. Problem Statement

Prepare a one-page note titled “Digital India Initiative”. Apply the Heading 1 style to the main title, Heading 2 style to two subheadings (“Objectives” and “Implementation”), and apply list styles.

2. Steps / Procedure

1. Open LibreOffice Writer and create a new blank document.
2. Type the title “Digital India Initiative” on the first line.
3. Select the title text, open the Styles sidebar (press F11) and double-click “Heading 1” to apply it.
4. Press Enter, type “Objectives”, select it and apply the “Heading 2” style.
5. Press Enter and type 3–4 lines of body text describing the objectives (Default/Text Body style).
6. Repeat steps 4–5 for the “Implementation” subheading and its content.
7. Apply Numbering 123 style to implementation section.
9. Save the file as Practical1.odt and export.

3. Output

Digital India Initiative

Objectives

- **Digital Infrastructure** – Provide high-speed internet and digital infrastructure to citizens.
- **Digital Services** – Make government services available online, easily and efficiently.
- **Digital Empowerment** – Improve citizens' digital literacy and access to digital resources.
- **E-Governance** – Promote transparent, efficient, and paperless government services.
- **Financial Inclusion** – Encourage digital payments and access to digital banking services.
- **Employment & Entrepreneurship** – Create opportunities through the digital economy and technology.
- **Rural Connectivity** – Bridge the digital divide between rural and urban areas.
- **Secure Digital Environment** – Promote safe and secure use of digital services and information.

Implementation

The ***Digital India*** Initiative is implemented through various programmes aimed at providing digital infrastructure, online government services, and digital empowerment to citizens. ***Digital India*** focuses on transforming India into a digitally empowered society and knowledge-based economy.

1. ***e-Governance***: Government departments provide services through online portals, reducing paperwork and improving transparency. e-Governance also enables citizens to access certificates, applications, payments, and other government services online.
2. Broadband Connectivity: Broadband internet is expanded to rural and remote areas through programmes such as BharatNet. Broadband connectivity helps villages access online education, healthcare, banking, and government services.
3. Digital Infrastructure: Development of digital identity, online platforms, cloud services, and mobile-based applications supports the ***Digital India*** ecosystem.
4. Digital Payments: Platforms such as UPI encourage cashless transactions and make digital payments faster and more accessible.
5. Digital Literacy: Programmes are implemented to improve citizens' ability to use computers, smartphones, the internet, and digital government services.
6. Mobile Governance: Government services are made available through mobile applications, allowing citizens to access services conveniently.
7. Digital Services in Rural Areas: Common Service Centres (CSCs) help people in rural areas access government, banking, education, and other digital services.

Practical 2: Create and Modify a New Custom Style

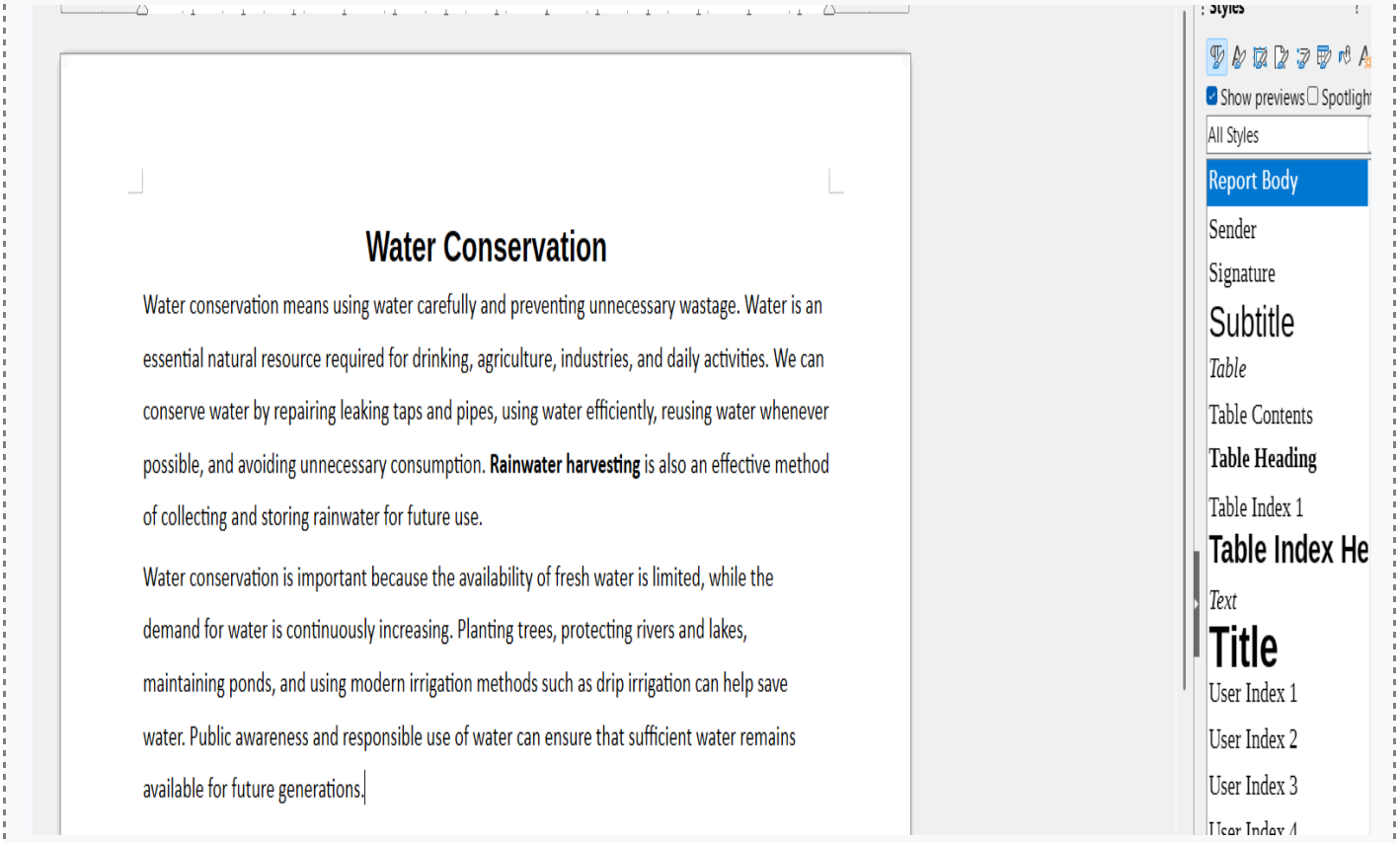
1. Problem Statement

Create a new custom paragraph style named “ReportBody” with font Calibri, size 12pt, 1.5 line spacing and 6pt space after each paragraph. Apply this style to two paragraphs of a short write-up on “Water Conservation”.

2. Steps / Procedure

1. Open the Styles sidebar (F11) in LibreOffice Writer.
2. Right-click on “Default Paragraph Style” in the list and choose New.
3. In the Organizer tab of the Paragraph Style dialog, type the name “ReportBody”.
4. Switch to the Font tab and set Family to “Calibri” and Size to “12pt”.
5. Switch to the Indents & Spacing tab; set Line Spacing to “1.5 lines” and “Space Below Paragraph” to 0.10″ (≈ 6pt).
6. Click OK to save the new style — it now appears in the Styles sidebar.
7. Type two paragraphs of text about “Water Conservation” in the document.
8. Select both paragraphs and double-click “ReportBody” in the sidebar to apply the custom style.
9. Save the file as Practical2.odt.

3. Output


Water Conservation
Water conservation means using water carefully and preventing unnecessary wastage. Water is an essential natural resource required for drinking, agriculture, industries, and daily activities. We can conserve water by repairing leaking taps and pipes, using water efficiently, reusing water whenever possible, and avoiding unnecessary consumption. Rainwater harvesting is also an effective method of collecting and storing rainwater for future use.
Water conservation is important because the availability of fresh water is limited, while the demand for water is continuously increasing. Planting trees, protecting rivers and lakes, maintaining ponds, and using modern irrigation methods such as drip irrigation can help save water. Public awareness and responsible use of water can ensure that sufficient water remains available for future generations.
Styles
Show previews
All Styles
Report Body
Sender
Signature
Subtitle
Table
Table Contents
Table Heading
Table Index 1
Table Index He
Text
Title
User Index 1
User Index 2
User Index 3

Practical 3: Insert and Format an Image with Text Wrap

1. Problem Statement

Insert a picture into a document titled “My School”, resize it proportionally, wrap the surrounding text around it, and add a caption below the image.

2. Steps / Procedure

1. Type the heading “My School” and two paragraphs describing the school.
2. Place the cursor at the point in the text where the picture should appear.
3. Go to **Insert > Image**, browse to the picture file and click Open to insert it.
4. Click the image to select it, then drag a corner handle to resize it proportionally.
5. Right-click the image, choose **Wrap Text > Optimal** so the surrounding paragraph text flows around it.
6. Press F4 (Position and Size) to precisely align the image to the top-right of the paragraph. Select **Horizontal Right, Vertical From Top** and **Anchor To Paragraph.**
7. Save the file as Practical3.odt.

3. Output

My School

Our school is a wonderful place where students learn, grow, and develop their skills. It has spacious classrooms, a well-equipped computer laboratory, a library, a playground, and other facilities that support both academic and extracurricular activities. The school provides a clean, safe, and friendly environment where students can study comfortably and participate actively in different activities.

The teachers in our school are knowledgeable, caring, and supportive. They encourage students to work hard, think creatively, and develop good manners and values. Along with education, the school gives importance to discipline, teamwork, sports, cultural activities, and overall personality development. It helps students become confident, responsible, and good citizens of the country.

Practical 4: Generate an Automatic Table of Contents

1. Problem Statement

Prepare a 3-unit assignment (Unit 1, Unit 2, Unit 3 as Heading 1, each with two Heading 2 sub-points) and generate an automatic Table of Contents on the first page.

2. Steps / Procedure

1. In a new document, leave the first page blank for the TOC and insert a page break (Press Ctrl + Enter) to start content on page 2.
2. Type “Unit 1: Introduction to Artificial Intelligence” and apply the Heading 1 style; below it add “1.1 Definition” and “1.2 Scope”, each styled as Heading 2, with a line of body text under each.
3. Repeat the same pattern for “Unit 2: Types and technologies of artificial intelligence” and “Unit 3: Applications, advantages and challenges of ai” with their own Heading 2 sub-points.
4. Place the cursor at the top of the first (blank) page.
5. Go to Insert > Table of Contents and Index > Table of Contents, Index or Bibliography.
6. In the dialog keep Type as “Table of Contents”, set “Evaluate up to level” to 2, and click OK.
7. The Table of Contents is generated automatically, listing all Heading 1/Heading 2 entries with page numbers.
8. Save the file as Practical4.odt.

3. Output

Table of Contents

UNIT 1: INTRODUCTION TO ARTIFICIAL INTELLIGENCE....2
1.1 Definition of Artificial Intelligence....2
1.2 Scope of Artificial Intelligence....2
1.3 Objectives of Artificial Intelligence....2
1.4 Characteristics of Artificial Intelligence....2
1.5 Applications of Artificial Intelligence....2
UNIT 2: TYPES AND TECHNOLOGIES OF ARTIFICIAL INTELLIGENCE....2
2.1 Types of Artificial Intelligence....2
2.2 Machine Learning....3
2.3 Deep Learning....3
2.4 Natural Language Processing....3
2.5 Computer Vision....3
2.6 Robotics....3
UNIT 3: APPLICATIONS, ADVANTAGES AND CHALLENGES OF AI....3
3.1 AI in Education....3
3.2 AI in Healthcare....3
3.3 AI in Agriculture....3
3.4 AI in Business and Banking....3
3.5 Advantages of Artificial Intelligence....4
3.6 Challenges and Limitations....4
3.7 Future Scope of Artificial Intelligence....4
3.8 Conclusion....4

Practical 5: Create and Use a Writer Template

1. Problem Statement

Design a personal school letterhead (with a header containing the school name and a footer containing contact details), save it as a reusable Writer Template (.ott), and create a new letter from that template.

2. Steps / Procedure

1. Open a new Writer document and go to Insert > Header and Footer > Header > Default Page Style to add a header.
2. Type the school name in the header in bold, centred, large font; optionally insert a logo image beside it.
3. Add a bottom border/horizontal line under the header using Format > Paragraph > Borders.
4. Go to Insert > Header and Footer > Footer > Default Page Style and type the address, phone number and email in small font, centred.
5. Go to **File > Templates > Save As**, enter template name "SchoolLetterhead" and select template category > MyTemplates . and click on Save button.
6. To use it later: go to File > New > Templates, select "SchoolLetterhead" and click Open — a new document opens with the header/footer already in place.
7. Type a sample letter in the body of the new document created from the template.
8. Save the sample letter as Practical5.odt.

3. Output

ABC School

ABC SCHOOL
Ahmedabad, Gujarat – 380001
Phone: 98XXX XXXXX | Email: info@sunriseschool.edu.in

Date: __/___/ 2026

TO WHOM IT MAY CONCERN

This is to certify that **Mr./Ms.** _____, has been associated with **ABC School, Ahmedabad**, as a student/employee during the period from _____ to _____.

During the period of association with the school, he/she has demonstrated good conduct, sincerity, discipline, and a positive attitude towards academic and extracurricular activities. He/She has maintained a good record and has participated actively in various school activities.

We wish him/her success in all future academic and professional endeavours.

For ABC School

Principal
ABC School
Ahmedabad, Gujarat – 380001

School Seal

ABC School
Landmark, City Name
Email:_____
Contact:_____

Practical 6: Goal Seek

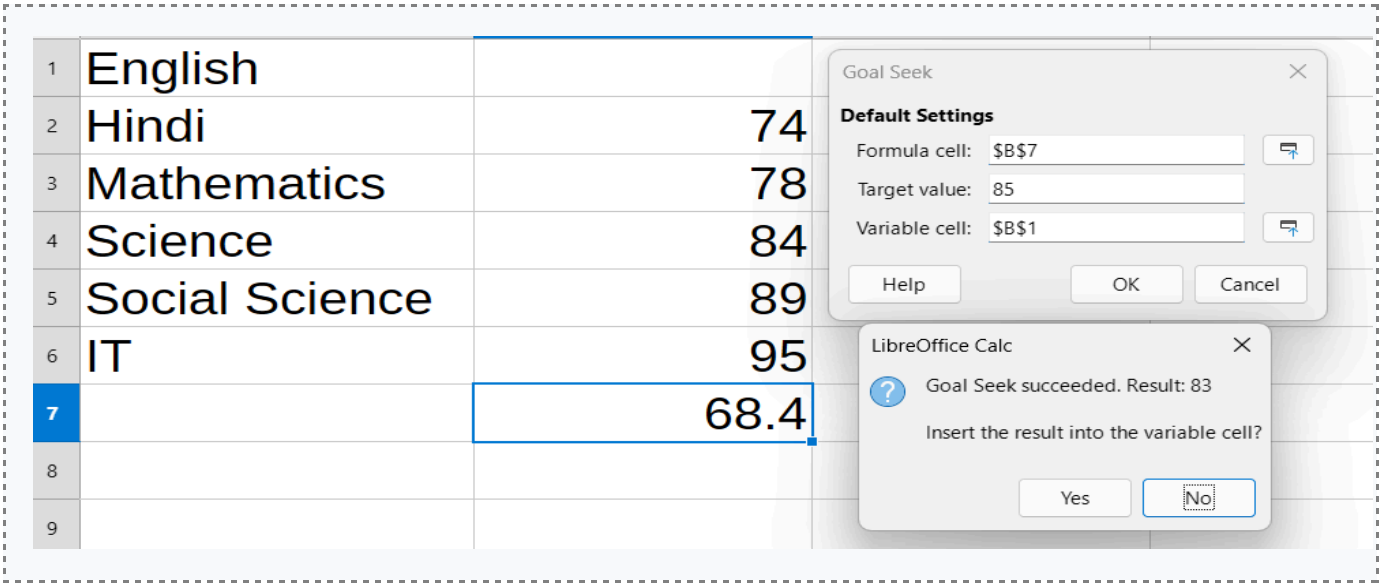
1. Problem Statement

A student has scored 72, 68 and 75 marks (out of 100 each) in three subjects. Use Goal Seek to find the marks required in the fourth subject so that the overall average becomes exactly 80.

2. Steps / Procedure

1. In a new Calc sheet, enter labels English, Hindi, Mathematics, Science, Social Science, IT in cells A1:A6 and the known marks 74,78,84,89,95 in B2:B6; leave B1 blank.
2. In cell B5 enter the formula =(SUM(B1:B6)-MIN(B3:B6))/500*100
3. Click on cell B7 to select the formula cell.
4. Go to Tools > Goal Seek.
5. In the dialog, Formula Cell shows $B$7, set Target Value to 85, and set Variable Cell to $B$1.
6. Click OK; a result dialog appears showing that a solution was found.
7. Click Yes to insert the computed value into cell B1.
8. Verify that B1 now shows the required marks and B7 shows exactly 85.
9. Save the file as Practical6.ods.

3. Output



Practical7: Subtotal

1. Problem Statement

A sales sheet lists Region, Product and Sales Amount for several transactions across three regions (North, South, East). Use the Subtotal command to compute total sales per region.

2. Steps / Procedure

1. Enter column headers Region, Product, Amount in A1:C1 and fill in 10–12 rows of sample transaction data.
2. Go to Data > Subtotals.
3. In the dialog, set “Group by” to Region, check “Amount” under “Calculate subtotals for”, and set the function to Sum.
4. Click OK — Calc inserts a subtotal row after each region group and a Grand Total row at the end.
5. Use the outline numbers (1, 2, 3) that appear on the left margin to collapse the view and show only the subtotal and grand total rows.
6. Save the file as Practical7.ods.

3. Output

Region	Product	Amount
East	Chair	12000
East	Table	9500
East	Desk	3200
East Sum		***24700***
North	Desk	15200
North	Chair	8300
North	Desk	3500
North Sum		***27000***
South	Chair	9500
South Sum		***9500***
West	Table	4500
West	Chair	2500
West Sum		***7000***
Grand Sum		***68200***

Practical 8: Solver

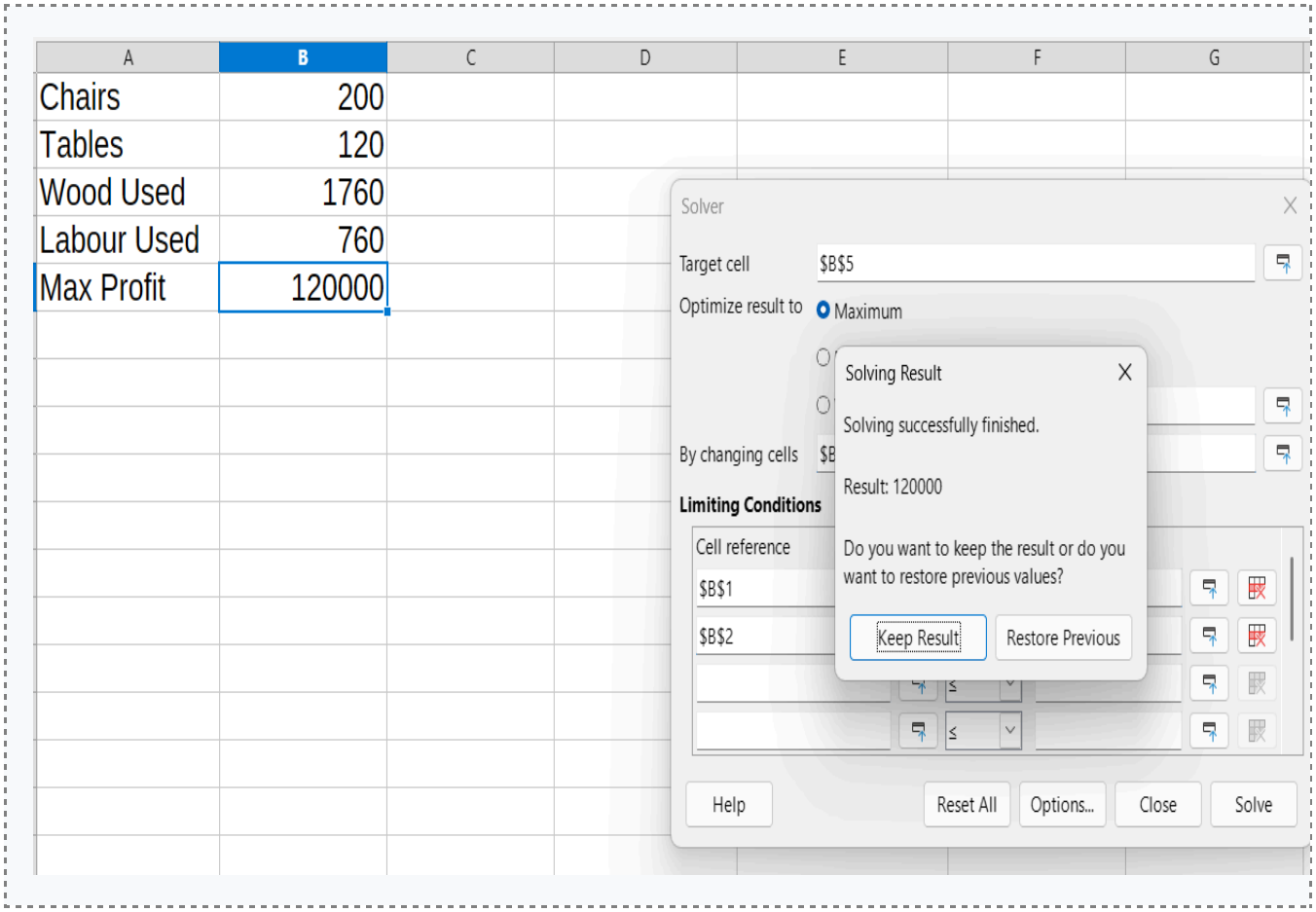
1. Problem Statement

A furniture unit manufactures Chairs (profit ₹300 each) and Tables (profit ₹500 each). Wood available = 200 units (Chair needs 4, Table needs 8); Labour available = 120 hours (Chair needs 2, Table needs 3). Use Solver to determine the number of Chairs and Tables that maximise total profit.

2. Steps / Procedure

1. Set up B1 = number of Chairs and B2 = number of Tables (decision variables), both starting at 0.
2. In B5 enter the objective formula =300*B1+500*B2 (Total Profit).
3. In B3 enter =4*B1+8*B2 (Wood used) and in B4 enter =2*B1+3*B2 (Labour used).
4. Go to Tools > Solver.
5. Set Target Cell to $B$5 and choose Maximum; set Variable Cells to $B$1:$B$2.
6. Add constraints: $B$1 <= 200, $B$2 <= 120.
7. Choose the “LibreOffice CoinMP Linear Solver” engine and click Solve.
8. In the Solver Results dialog, click Keep Result to update the sheet with the optimum values.
9. Save the file as Practical8.ods.

3. Output


A
B
C
D
E
F
G
Chairs 200
Tables 120
Wood Used 1760
Labour Used 760
Max Profit 120000
Solver
Target cell $B$5
Optimize result to Maximum
By changing cells
Limiting Conditions
Cell reference
$B$1
$B$2
Solving Result
Solving successfully finished.
Result: 120000
Do you want to keep the result or do you want to restore previous values?
Keep Result
Restore Previous
Help
Reset All
Options...
Close
Solve

Practical 9: Scenario Manager

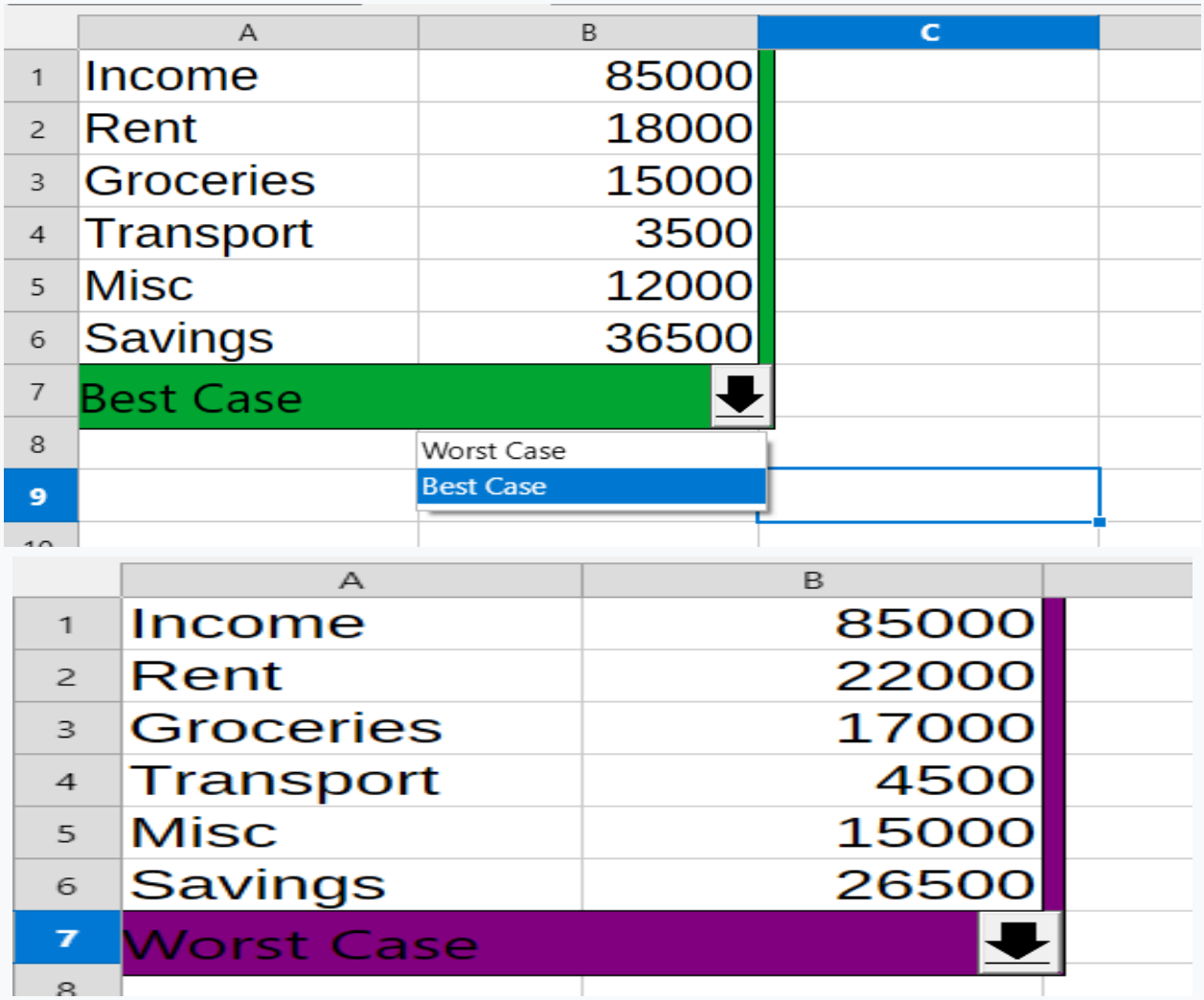
1. Problem Statement

Prepare a monthly household budget with Income and four expense heads (Rent, Groceries, Transport, Misc). Create two scenarios — “Best Case” (lower expenses) and “Worst Case” (higher expenses) — and compare the resulting Savings.

2. Steps / Procedure

1. Set up rows: Income (B1), Rent (B2), Groceries (B3), Transport (B4), Misc (B5), and Savings in B6 = B1-SUM(B2:B5).
2. Enter typical base values for a normal month in B1:B5.
3. Select the changing cells B2:B5.
4. Go to Tools > Scenarios, type the name “Best Case”, enter reduced expense values for each cell in the dialog, and click OK.
5. Re-select B2:B5 and go to Tools > Scenarios again; type the name “Worst Case”, enter higher expense values, and click OK.
6. Open the Scenario drop-down/Navigator (View > Navigator > Scenarios) and switch between “Best Case” and “Worst Case”.
7. Observe how the Savings value in B6 automatically recalculates for each scenario.
8. Save the file as Practical9.ods.

3. Output



	A	B
1	Income	85000
2	Rent	18000
3	Groceries	15000
4	Transport	3500
5	Misc	12000
6	Savings	36500
7	Best Case	

	A	B
1	Income	85000
2	Rent	22000
3	Groceries	17000
4	Transport	4500
5	Misc	15000
6	Savings	26500
7	Worst Case	

Practical 10: Linking Spreadsheets, Sharing and Reviewing

1. Problem Statement

Create two sheets, Sheet1 (Marks) and Sheet2 (Summary), in the same workbook. Link the class total from Sheet1 into Sheet2 using a cell reference, then enable Track Changes, add a reviewer comment, and share the workbook for collaborative review.

2. Steps / Procedure

1. In Sheet1, enter student names in column A and marks of three subjects in columns B–D; add a Total column E with =SUM(B2:D2).
2. Rename the second sheet tab to “Summary”. In cell A1 type “Class Total”, and in cell B1 enter =SUM(Sheet1.E2:E6) to link the totals from Sheet1.
3. Edit a mark in Sheet1 and confirm that the linked total in the Summary sheet updates automatically.
4. Go to Tools > Share Document, check “Share this spreadsheet”, click OK and save the file.
5. Go to Edit > Track Changes > Record Changes; make an edit in the Summary sheet — it appears highlighted with the author's name and date.
6. Right-click a cell in the Summary sheet and choose Insert Comment; type a reviewer's remark, e.g. “Verify Sheet1 totals before finalising.”
7. Go to Edit > Track Changes > Manage to review, and accept or reject the recorded changes.
8. Save the file as Practical10.ods ensuring the linked value, change markers and comment are visible.

3. Output

	A	B	C	D	E	F
1	Name	Maths	Science	Social Science		
2	Aman	45	74	47		
3	Ankit	85	56	46		
4	Bhavna	63	33	33		
5	Bhavin	41	56	56		
6	Chirag	74	46			
7	Divya	52	33			
8	Dhiren	85	46			
9	Dhiraj	96	85			

Verify records before finalising

Sheet 1

A2 | =SUM($Sheet4.B2:D2)

	A	B	C
1	Class Total		
2	166		
3	187		
4	129		
5	153		
6	179		
7	128		
8	218		
9	279		
10			

Summary Sheet

Practical 11: Create a Table Using Design View

1. Problem Statement

Create a table named “Student” with fields StudentID (Primary Key, Integer), Name (Text), Class (Text), DOB (Date) and Marks (Integer) using Design View, and enter sample records.

2. Steps / Procedure

1. Open LibreOffice Base, choose “Create a new database”, click Next, then Finish, and save the file as SchoolDB.odb.
2. In the Database pane, select Tables and click “Create Table in Design View”.
3. In the first row, type Field Name “StudentID” and set Field Type to “Integer [INTEGER]”.
4. Add further rows: Name (Text [VARCHAR]), Class (Text [VARCHAR]), DOB (Date [DATE]), Marks (Integer [INTEGER]).
5. Right-click the row selector next to StudentID and choose “Primary Key” — a small key icon appears beside it.
6. Press Ctrl+S, name the table “Student” and click OK.
7. Double-click the Student table to open Datasheet View and enter 5–6 sample student records.

3. Output

Table Structure

Field Name	Field Type
StudentID	Integer [INTEGER]
Name	Text [VARCHAR]
Class	Text [VARCHAR]
DOB	Date [DATE]
Marks	Integer [INTEGER]

Table Data

StudentID	Name	Class	DOB	Marks
1001	Ankit	10	02/12/11	56
1002	Man	10	18/05/10	75
1003	Biren	9	12/04/12	84
1004	Chirag	10	18/10/11	69
1005	Priya	9	23/04/12	89
1006	Lavnya	10	23/11/11	74

Practical 12: Create a Query Using the Wizard

1. Problem Statement

Using the Student table, create a query with the Query Wizard that displays only Name, Class and Marks, sorted by Marks in descending order.

2. Steps / Procedure

1. In Base, select Queries and click “Use Wizard to Create Query”.
2. Select table “Student”; move the fields Name, Class and Marks from Available Fields to Selected Fields, click Next.
3. On the Sorting Order screen, set “Sort by” to Marks and choose Descending, click Next.
4. On the Search Conditions screen leave it as “Detailed Query” and click Next (no filter applied).
5. Give the query the name “Query_MarksDescending”, select “Display Query”, and click Finish.
6. The query result opens automatically, showing the three selected columns sorted by Marks from highest to lowest.

3. Output

	Name	Class	Marks
▶	Priya	9	89
	Biren	9	84
	Man	10	75
	Chirag	10	69
	Ankit	10	56

Practical 13: Create a Query in Design View with Criteria

1. Problem Statement

Create a query in Design View on the Student table to list only those students who scored Marks greater than 75.

2. Steps / Procedure

1. Select Queries and click “Create Query in Design View”.
2. In the Add Table dialog, select “Student”, click Add, then Close.
3. Double-click the fields Name, Class and Marks in the table window to add them to the design grid below.
4. In the “Criterion” row under the Marks column, type >75.
5. Click the “Run Query” icon (or press F5) to execute the query.
6. Verify that only students with Marks greater than 75 appear in the result.
7. Save the query as “Query_HighScorers”.

3. Output

	Name	Class	Marks
▶	Biren	9	84
	Priya	9	89

Practical 14: Create a Form Using the Form Wizard

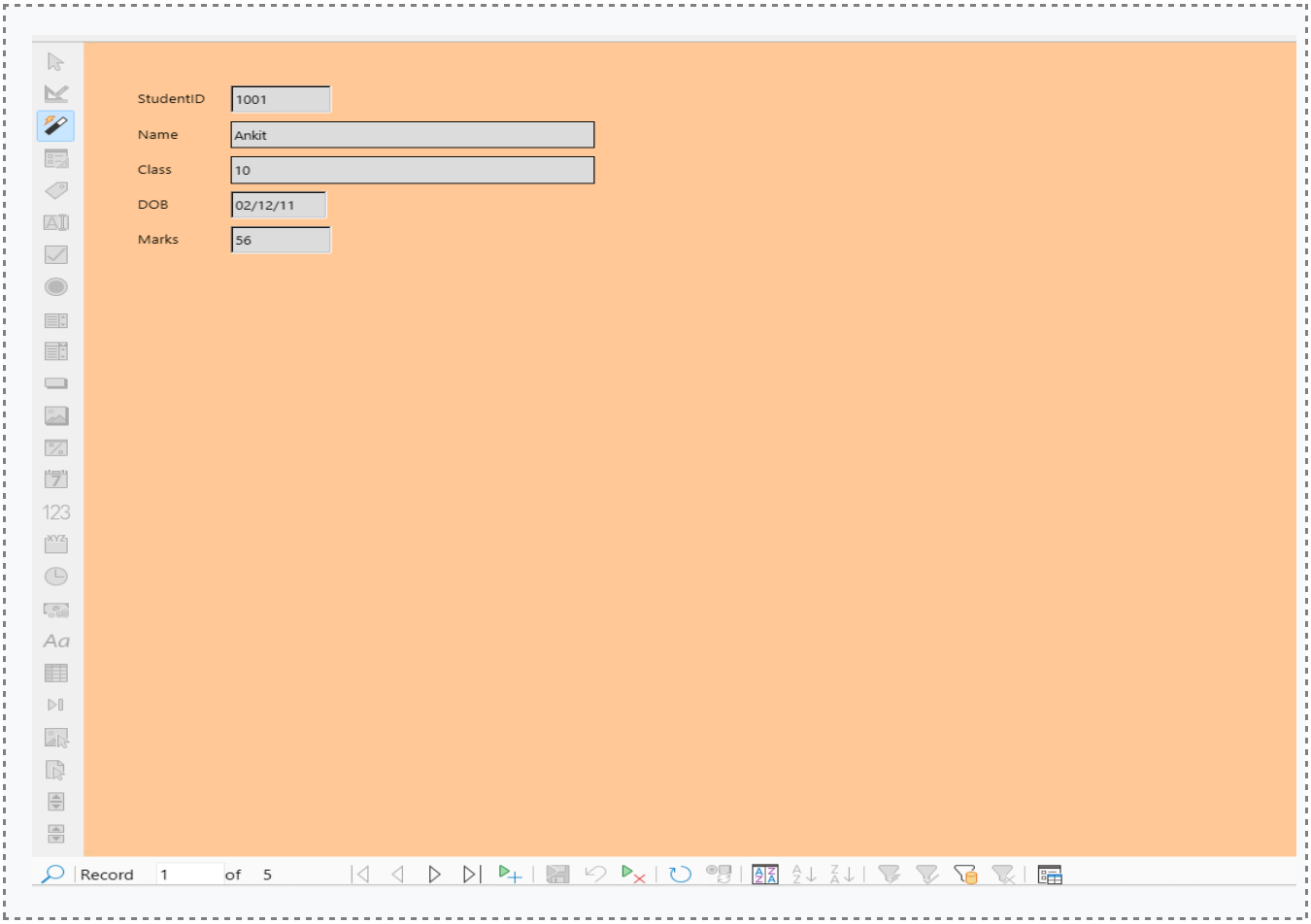
1. Problem Statement

Create a user-friendly data-entry form for the Student table using the Form Wizard, and use it to add a new record.

2. Steps / Procedure

1. Select Forms and click “Use Wizard to Create Form”.
2. Select table “Student” and move all fields to Selected Fields, click Next.
3. Choose the layout “Columnar – Labels Left”, click Next.
4. Choose “The form is to display all data” (data entry mode), click Next.
5. Choose a style/theme for the form (e.g. “Beige”), click Next.
6. Name the form “Student_Entry_Form”, select “Use the form”, and click Finish.
7. The form opens in Form View; use the record-navigation buttons at the bottom to move to a new blank record and enter a new student's details.

3. Output



Practical 15: Create a Report Using the Report Wizard

1. Problem Statement

Generate a printable report of all students, grouped by Class and sorted by Marks within each group, using the Report Wizard.

2. Steps / Procedure

1. Select Reports and click “Use Wizard to Create Report”.
2. Select table “Student” and move the fields Name, Class and Marks to Selected Fields, click Next.
3. On the Labeling Fields screen, keep the default labels and click Next.
4. On the Grouping screen, move “Class” into the Grouping box so records are grouped by class, click Next.
5. On the Sort Options screen, set the sort field to Marks in Descending order, click Next.
6. Choose Layout “Tabular” and Orientation “Landscape”, click Next.

7. Title the report “Class_wise_Marks_Report”, select “Create report now” and click Finish.

8. The report is generated with a class-wise grouped, marks-sorted layout, ready to print (File > Print).

3. Output

Class 10

StudentID	Name	DOB	Marks
1002	Man	18/05/10	75
1004	Chirag	18/10/11	69
1001	Ankit	02/12/11	56

Class 9

StudentID	Name	DOB	Marks
1005	Priya	23/04/12	89
1003	Biren	12/04/12	84