

GLD PUBLIC SCHOOL KHAIRITAL

Affiliated to CBSE Delhi, Affiliation no. 3330518

A

PROJECT

ON

“ Sports Equipment Inventory Management System”



SESSION – 2025-26

Submitted to :-

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Class - 10th

Roll no. -

Subject – Information Technology

Session-2025-26

Certificate

This is to certify that **Aarav Banjare** of Class 10th GLD PUBLIC SCHOOL KHAIRITAL, has successfully completed the project titled "**Sport Equipment Inventory Management System**" for the Information Technology subject (Code 402) in the academic year 2025-26. This project has completed under the guidance of Mr Umesh Banjare sir and has met the required guidelines set by the Central Board of Secondary Education (CBSE). The project demonstrates the student's understanding, research skills, and dedication to the topic of **Sport Equipment Inventory Management System** and their applications.

Signature of Teacher

(Mr. UMESH BANJARE)

Date

Acknowledgment

I would like to express my special thanks of gratitude to my teacher **Mr. Umesh Banjare sir** who gave me the golden opportunity to do this wonderful project on the topic **Sport Equipment Inventory Management System**, which also helped me in doing a lot of Research and I came to know about so many new things I am really thankful to them.

Secondly, I would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame.

Last but not least, I would like to thank all those who had helped (directly or indirectly) towards the completion of this project.

Aarav Banjare

Class - 10th

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1. Sport Equipment Inventory Management System

Introduction

A Sport Equipment Inventory Management System helps schools, colleges and sports clubs keep track of all their sports items in an organised way. Managing equipment manually often leads to problems like missing items, inaccurate records and difficulty in checking availability. This system solves those issues by storing all information in one place, making record-keeping easier and faster.

The system maintains details such as equipment name, category, quantity, purchase date, condition and location. When items are issued to students or players, the system updates the record so the staff always know what is available and what is in use. It also helps in tracking damaged or out-dated equipment, which supports timely repair and replacement planning.

With this system, maintaining stock becomes more accurate. It reduces paperwork, saves time and prevents confusion. Staff can quickly check which items need to be purchased and prepare reports whenever required. Overall, the Sport Equipment Inventory Management System improves efficiency, ensures transparency and supports smooth functioning of sports activities. This organised approach helps institutions manage resources properly and provide better facilities to students and players.

2. Objective of the Project

The main objective of the Sport Equipment Inventory Management System is to create an organised and reliable method for managing all sports-related items within an institution. One important goal is to reduce the problems that come with manual record keeping, such as missing entries, misplacement of equipment and difficulty in tracking usage. By storing all information digitally, the system ensures accuracy and easy access to records whenever needed.

Another objective is to help staff maintain proper stock levels. The system keeps track of quantities, issued items and returned items so the sports department can quickly identify shortages and plan purchases on time. It also aims to monitor the condition of equipment, making it easier to schedule repairs or replacements before they affect sports activities.

A further goal is to save time and effort. Instead of searching through registers or files, staff can get information instantly with just a few clicks. The system also supports quick report generation, helping teachers and administrators make better decisions about resource management.

Overall, the objective of this project is to streamline the entire process of equipment handling, improve efficiency and ensure smooth functioning of sports facilities for students and players.

3. Hardware and Software Requirements

A. Hardware Requirements:

- Processor: Pentium® G2030 @ 3.70 GHz
- Processor Speed: 533 MHz
- RAM: 2 GB or more
- Hard Disk: 2.00 GB
- RAM (minimum): 256 Mbytes (512 MB recommended)

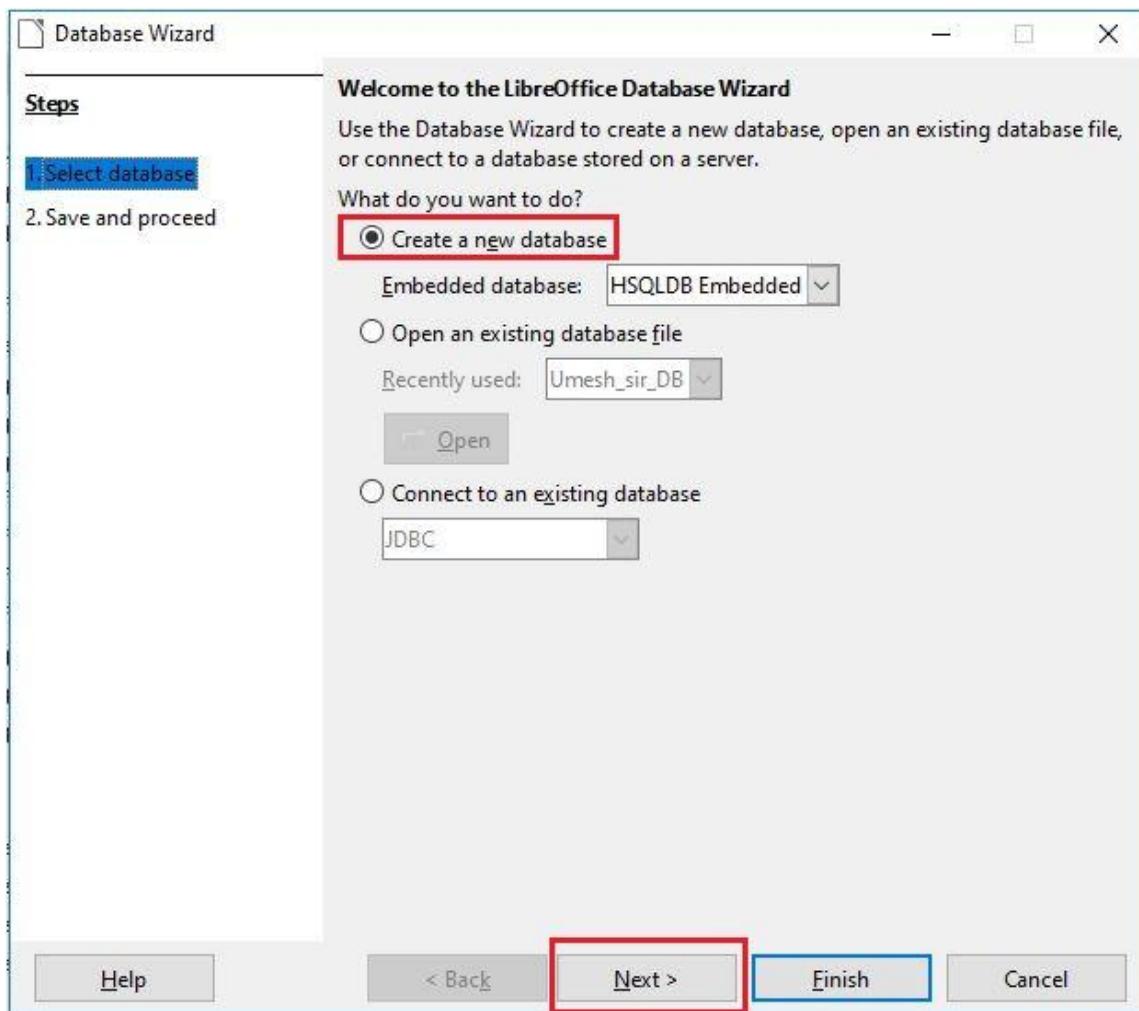
B. Software Requirements:

- At least 650 MB available disk space for a default install (including a JRE) via download. After installation and deletion of temporary files.
- **Operating System:** Microsoft Windows (Windows XP, Windows 2003, Windows Vista, Windows 7, Windows 8)
- Apache OpenOffice requires approximately 440 Mbytes disk space
- **LibreOffice Base Requirements:** Java Runtime Environment (JRE) for full database functionality
- **Approximate Program Size:** LibreOffice uses around 440 MB disk space after installation

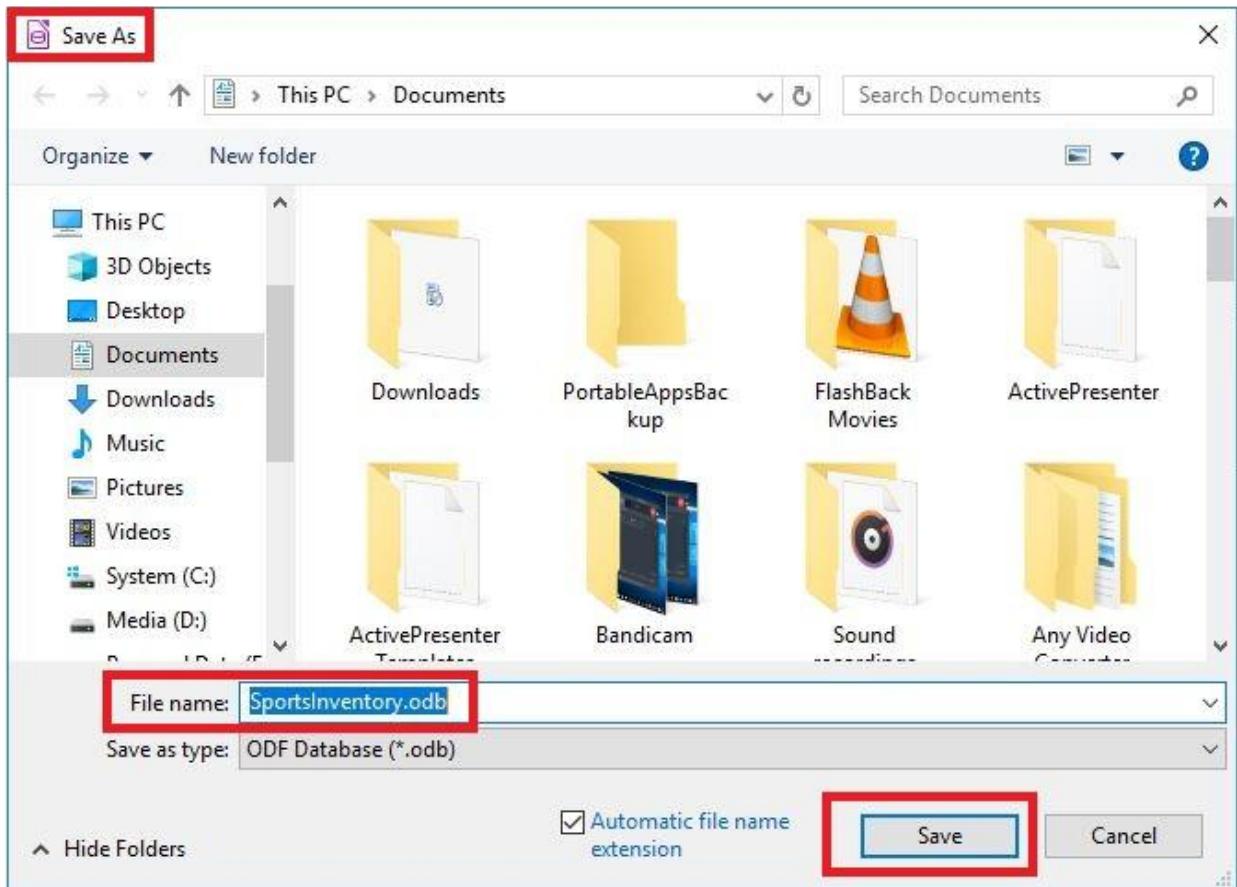
4. Steps in Creating the Project

i. Creating a Database

1. Open LibreOffice Base.
2. Choose “Create a new database” and click Next.



3. Select “Yes, register the database” and click Finish.



4. Save the database file with “SportsInventory.odb” name.

ii. Creating Tables

A. Equipment Table

Step 1. Open Your Database File

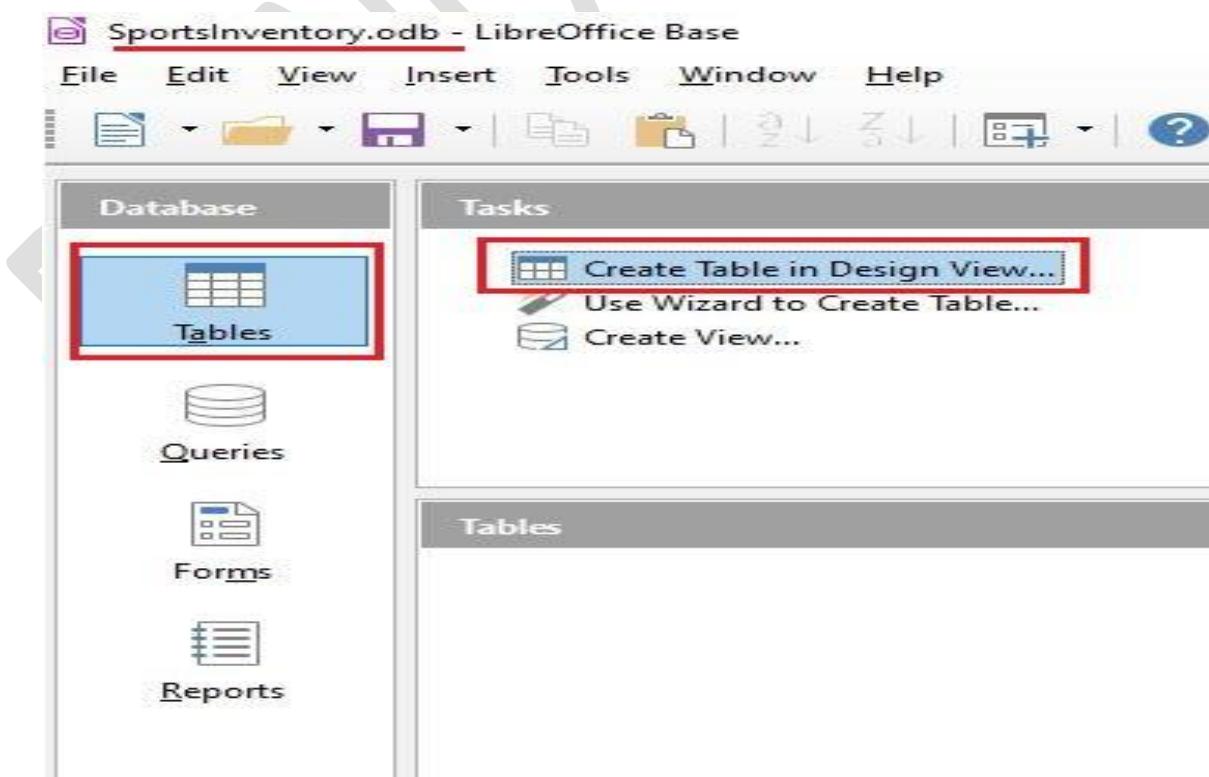
- Open LibreOffice Base.
- Load your database (example: *SportsInventory.odb*).

Step 2. Select the “Tables” Section

- On the left sidebar, click **Tables**.
- You will see three options:
 - Create Table in Design View
 - Use Wizard to Create Table
 - Create View

Step 3. Choose “Create Table in Design View”

- Click **Create Table in Design View**.



Step 4. Add Fields to the Table and saving table

The screenshot shows the LibreOffice Base Table Design interface. The main window displays a table with five fields: EquipmentID (Integer [INTEGER]), EquipmentName (Text [VARCHAR]), Category (Text [VARCHAR]), Quantity (Integer [INTEGER]), and Condition (Text [VARCHAR]). A 'Save As' dialog box is overlaid on the bottom right, prompting for a 'Table Name'. The input field contains 'Equipment' and the 'OK' button is highlighted with a red box.

	Field Name	Field Type
▶	EquipmentID	Integer [INTEGER]
	EquipmentName	Text [VARCHAR]
	Category	Text [VARCHAR]
	Quantity	Integer [INTEGER]
	Condition	Text [VARCHAR]

Save As

Table Name

B.Issue Table

The screenshot shows the LibreOffice Base Table Design interface. The main window displays a table with five fields: IssueID (Integer [INTEGER]), EquipmentID (Integer [INTEGER]), IssuedTo (Text [VARCHAR]), IssueDate (Date [DATE]), and ReturnDate (Date [DATE]). A 'Save As' dialog box is overlaid on the bottom right, prompting for a 'Table Name'. The input field contains 'Issue_Table' and the 'OK' button is highlighted with a red box.

	Field Name	Field Type
▼	IssueID	Integer [INTEGER]
	EquipmentID	Integer [INTEGER]
	IssuedTo	Text [VARCHAR]
	IssueDate	Date [DATE]
▶	ReturnDate	Date [DATE] <input type="button" value="▼"/>

Save As

Table Name

iii. Inserting Data in Tables

You can insert data using “Table Data View”:

A.Equipment Table (Example)



Equipment - SportsInventory - LibreOffice Base: Table Data View

File Edit View Insert Tools Window Help

	EquipmentID	EquipmentName	Category	Quantity	Condition	
	0	Football	Outdoor	10	Good	
▶	1	Cricket Bat	Outdoor	15	Good	
+	<AutoField>					

B.Issue Table- Entering data –



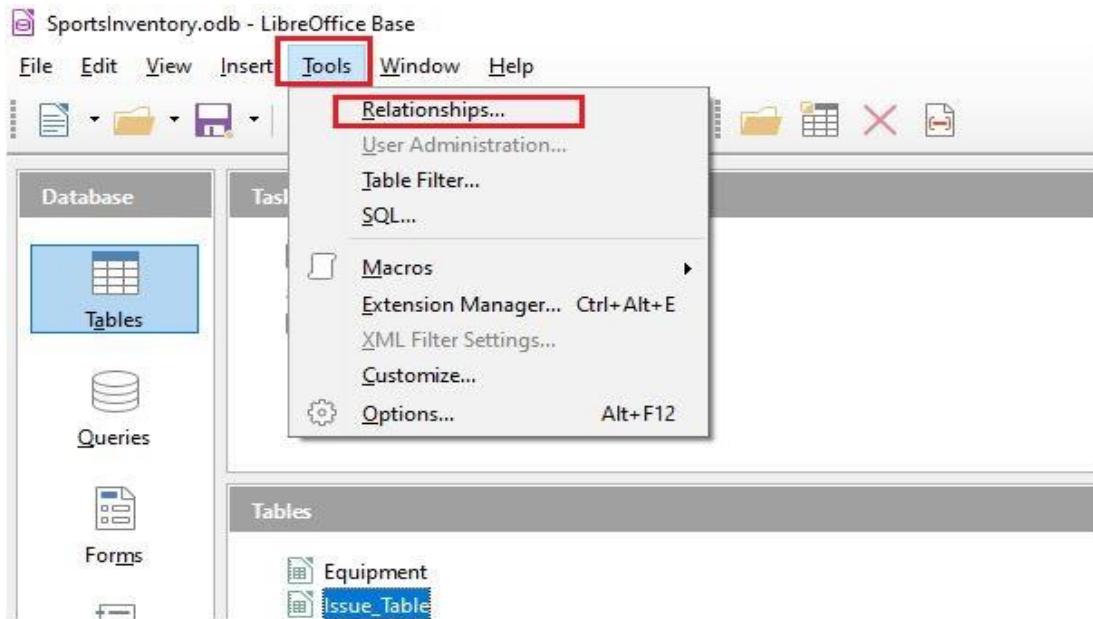
Issue_Table - SportsInventory - LibreOffice Base: Table Data View

File Edit View Insert Tools Window Help

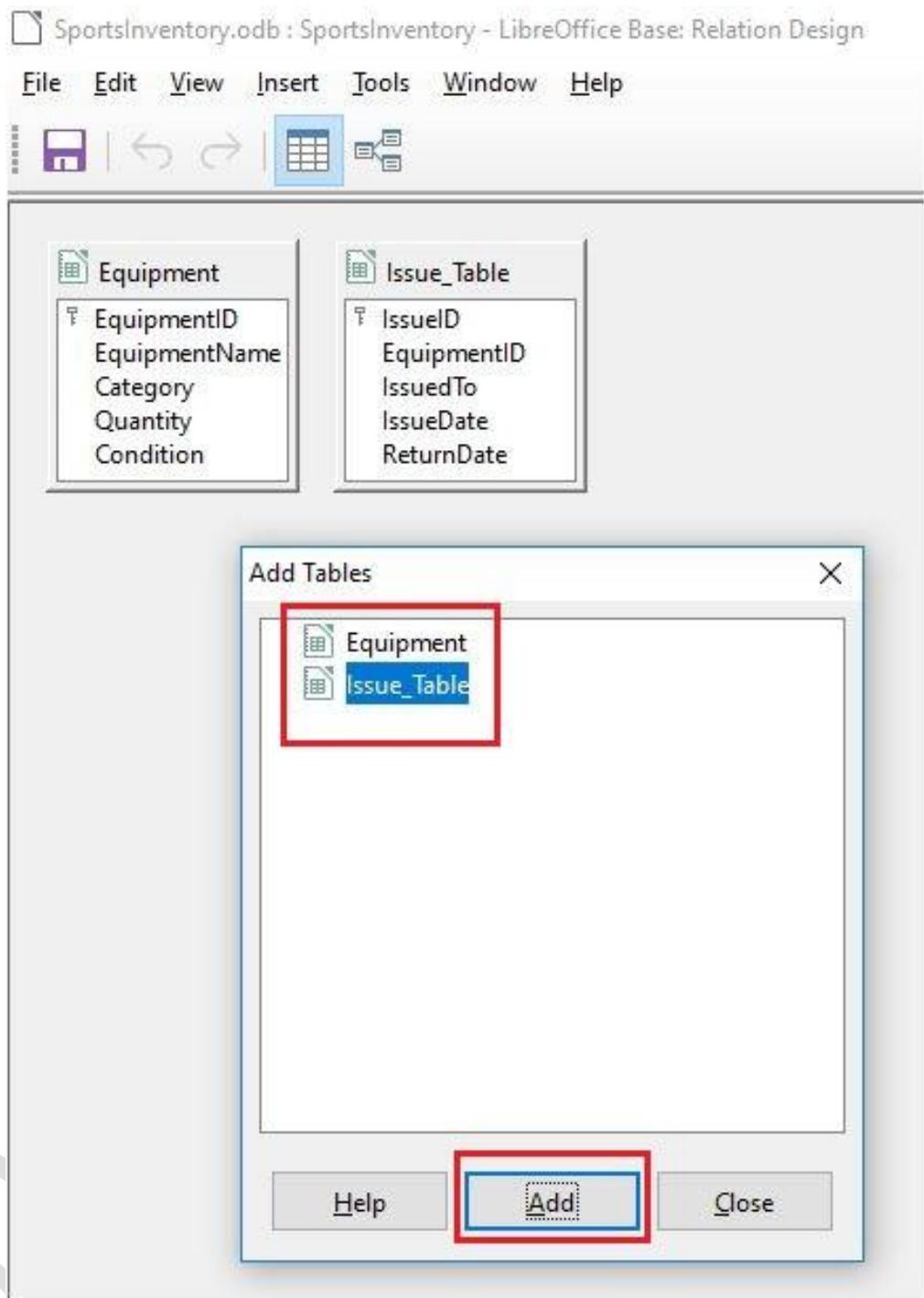
	IssuedID	EquipmentID	IssuedTo	IssueDate	ReturnDate	
	0	0	Umesh Banjare	19/10/25	15/11/25	
▶	<AutoField>	1	Aarav Banjare	15/10/25	11/10/25	
+	<AutoField>					

iv. Creating Relationship Between Tables

1. Go to **Tools > Relationships**.



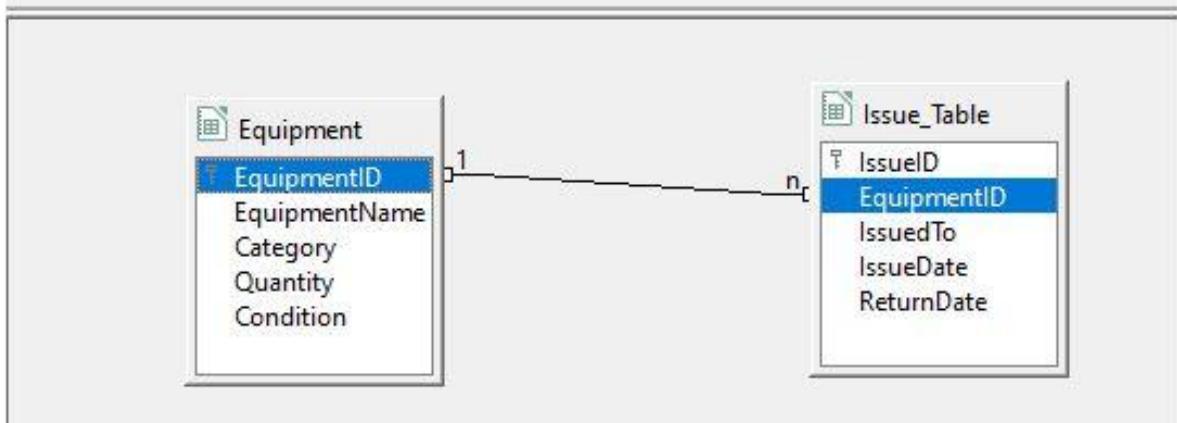
2. Add both tables.



3. Create a relationship between **Equipment.EquipmentID** and **Issue.EquipmentID**.

SportsInventory.odb : SportsInventory - LibreOffice Base: Relation Design

File Edit View Insert Tools Window Help

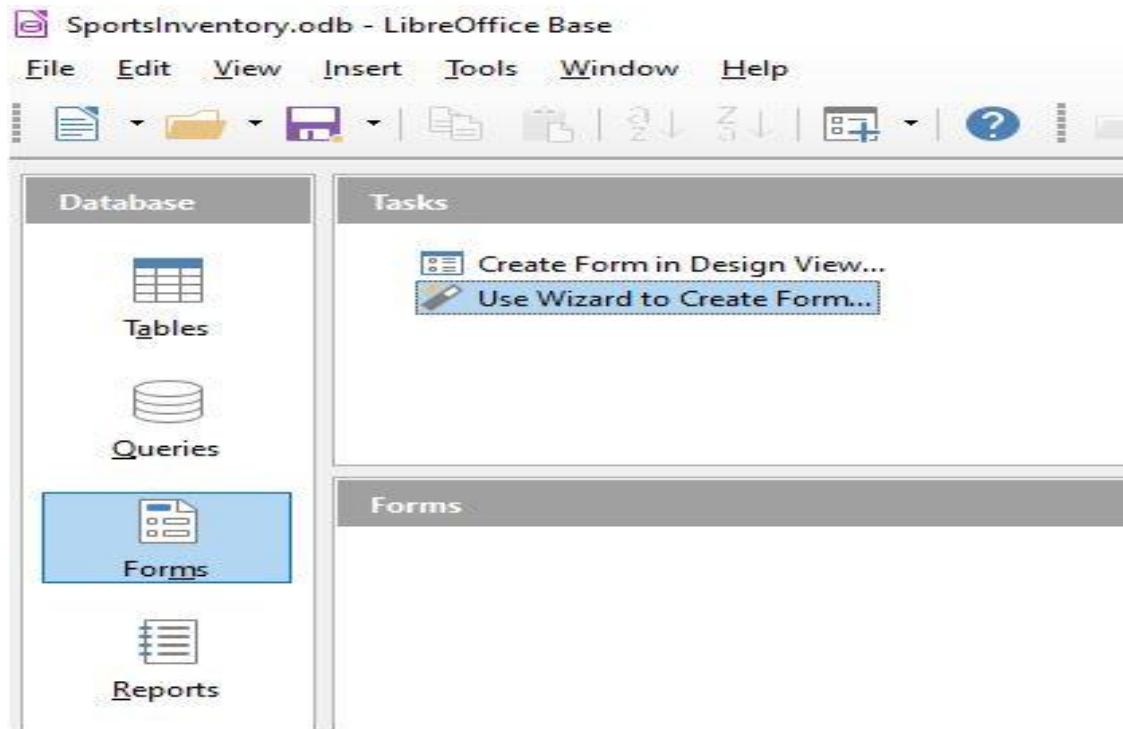


4. Enable **Referential Integrity** to prevent invalid issue entries.

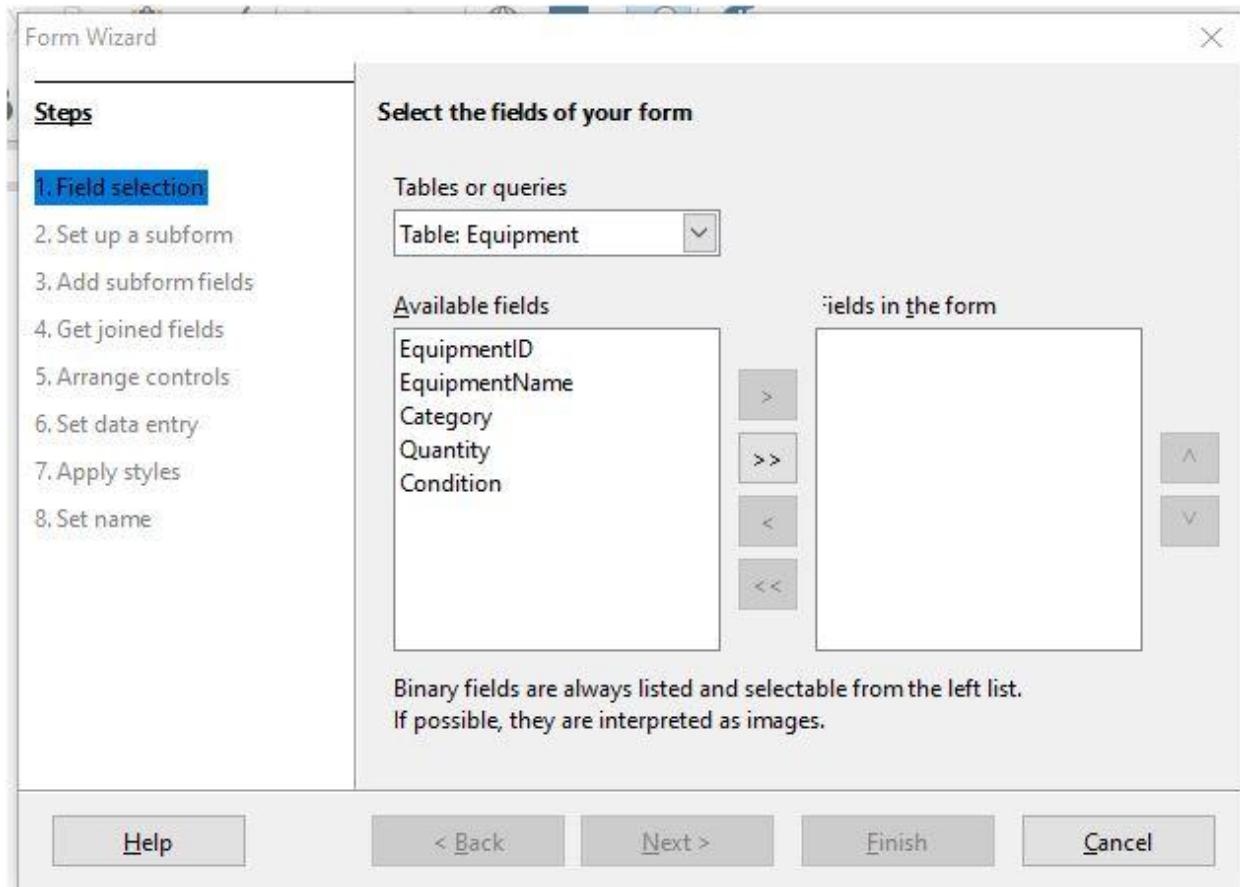
v. Creating a Form and Insert the records in a table

A.Equipment form

1. Use the Form Wizard.



2. Select “Equipment” table.



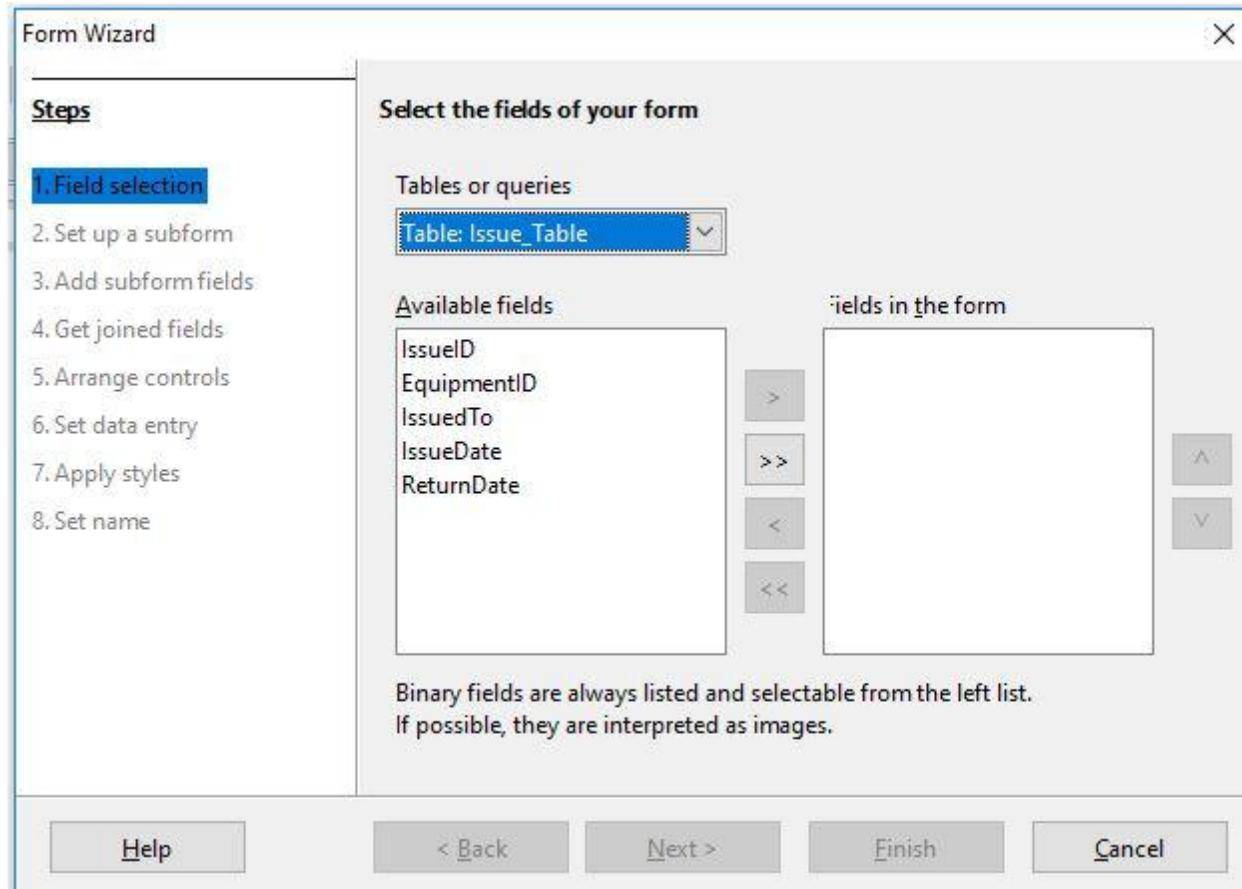
3. Include all fields.
4. Choose a column layout.
5. Save the form as **EquipmentForm**.

SportsInventory.odb : Equipment - LibreOffice Base: Database Form

File Edit View Insert Format Table Tools Window Help

EquipmentID: 0
EquipmentName: Football
Category: Outdoor
Quantity: 10
Condition: Good

B.Issue_Table-Form



DOING

SportsInventory.odb : Issue_Table_Form - LibreOffice Base: Database Form

File Edit View Insert Format Table Tools Window Help

IssuedID: 0
EquipmentID: 0
IssuedTo: Umesh Banjare
IssueDate: 19/10/25
ReturnDate: 15/11/25

vi. Creating Queries

SportsInventory.odb - LibreOffice Base

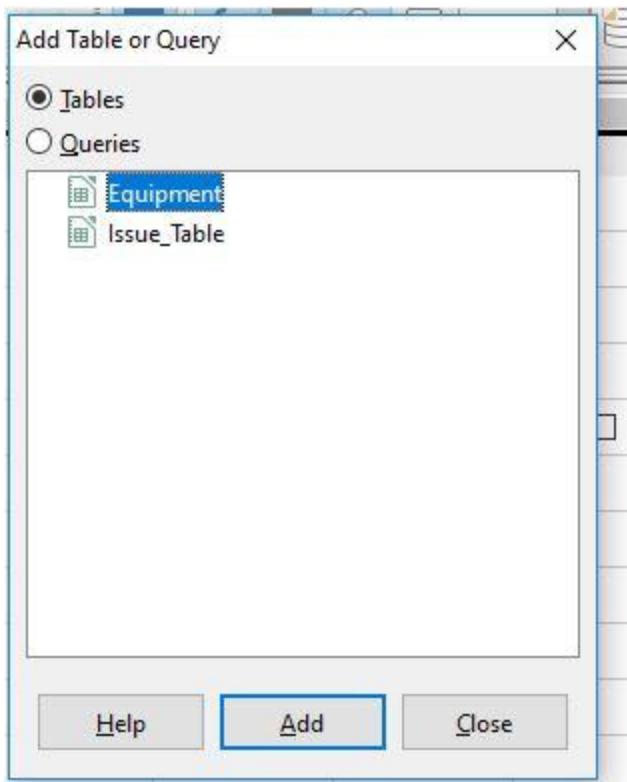
File Edit View Insert Tools Window Help

Tables
Queries
Forms

Tasks

- Create Query in Design View...
- Use Wizard to Create Query...
- Create Query in SQL View...

Queries



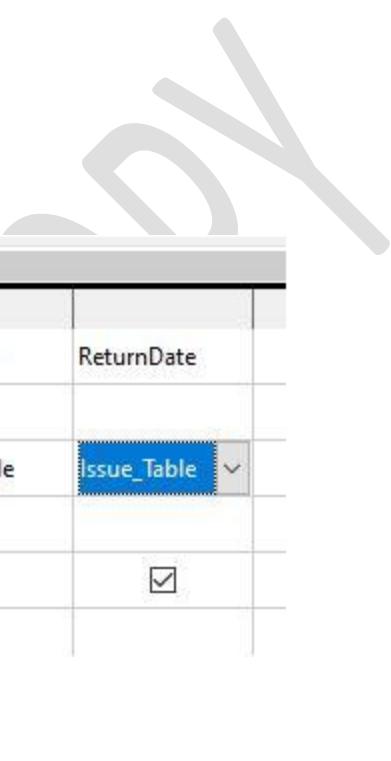
1. Available Equipment Query

Field	EquipmentID	EquipmentName	Category	Quantity	Condition	IssueID	EquipmentID	IssuedTo	IssueDate	ReturnDate
Alias										
Table	Equipment	Equipment	Equipment	Equipment	Equipment	Issue_Table	Issue_Table	Issue_Table	Issue_Table	Issue_Table
Sort										
Visible	<input checked="" type="checkbox"/>									

Shows equipment with issue date and Return details

QueryForBothData - SportsInventory - LibreOffice Base: Table Data View

File Edit View Insert Tools Window Help



	EquipmentID	EquipmentName	Category	Quantity	Condition	IssueID	EquipmentID	IssuedTo	IssueDate	ReturnDate
▶	0	Football	Outdoor	10	Good	0	0	Umesh Banjare	19/10/25	15/11/25
1		Cricket Bat	Outdoor	15	Good	1	1	Aarav Banjare	15/10/25	11/10/25
2		Badminton Rocket	Indoor	20	Good	2	2	Rahul kumar	10/07/25	12/07/25
3		Volley Ball	Outdoor	8	Good	3	3	Anjali	11/07/25	14/07/25
+	<AutoField>					<AutoField>				

2. Issued Equipment Query

Displays items currently issued and not returned.



Field	IssueID	EquipmentID	IssuedTo	IssueDate	ReturnDate
Alias					
Table	Issue_Table	Issue_Table	Issue_Table	Issue_Table	Issue_Table
Sort					
Visible	<input checked="" type="checkbox"/>				
Function					

QueryForIssue - SportsInventory - LibreOffice Base: Table Data View

File Edit View Insert Tools Window Help



	IssueID	EquipmentID	IssuedTo	IssueDate	ReturnDate
▶	0	0	Umesh Banjare	19/10/25	15/11/25
1	1		Aarav Banjare	15/10/25	11/10/25
2	2		Rahul kumar	10/07/25	12/07/25
3	3		Anjali	11/07/25	14/07/25
+	<AutoField>				

3. Equipment by Category Query

Helps filter based on indoor or outdoor sports.

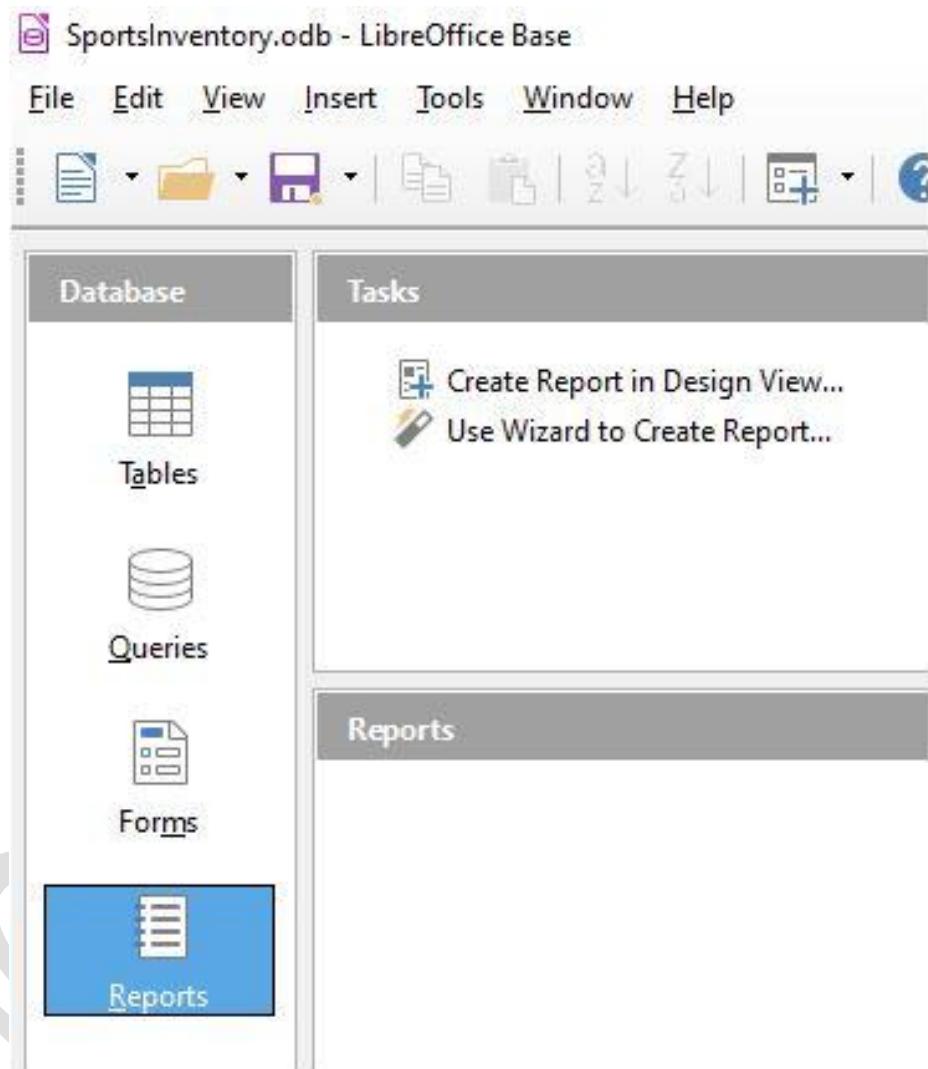
SQL example:

```
SELECT EquipmentName, Category, Quantity FROM Equipment WHERE Category =  
'Outdoor';
```

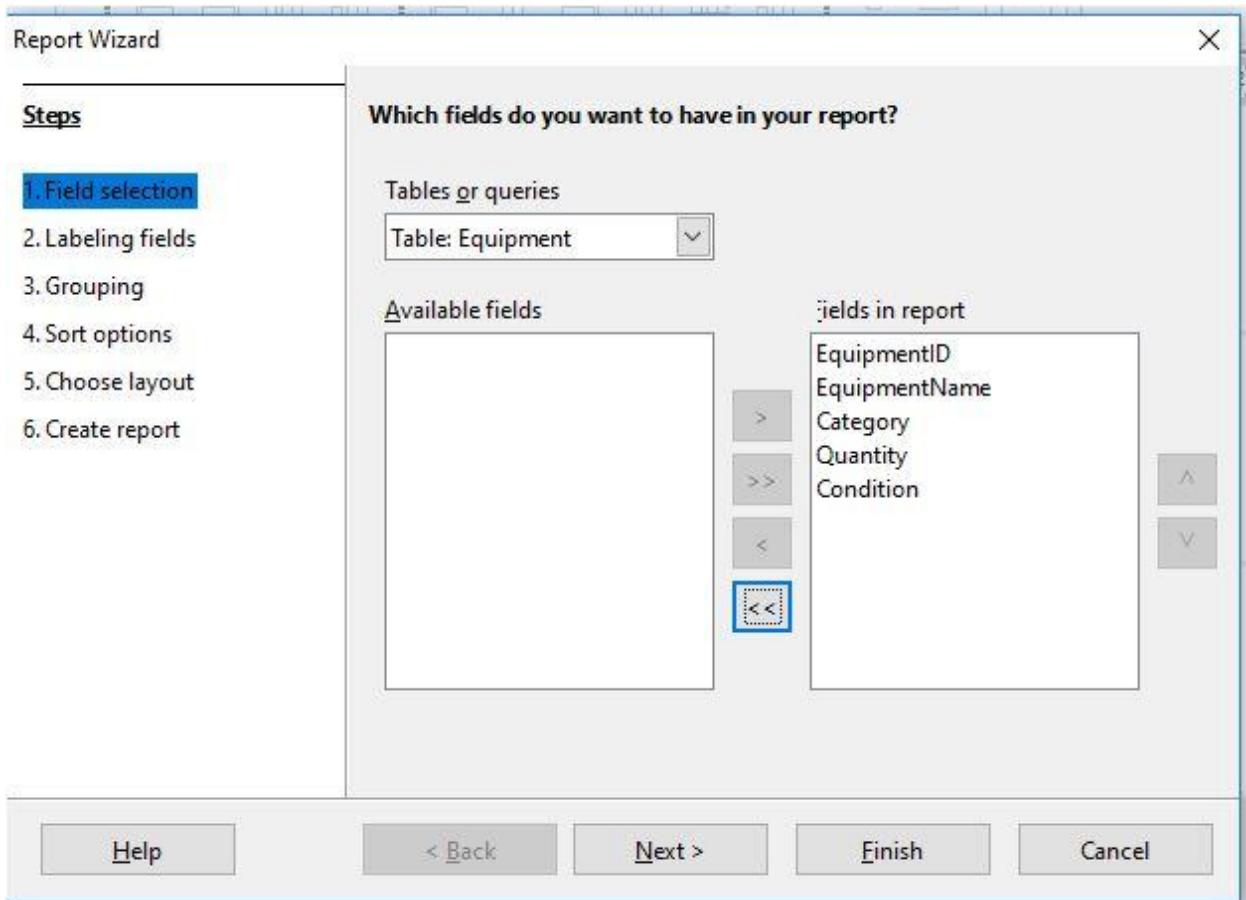
vii. Creating Reports

A. Equipment Report

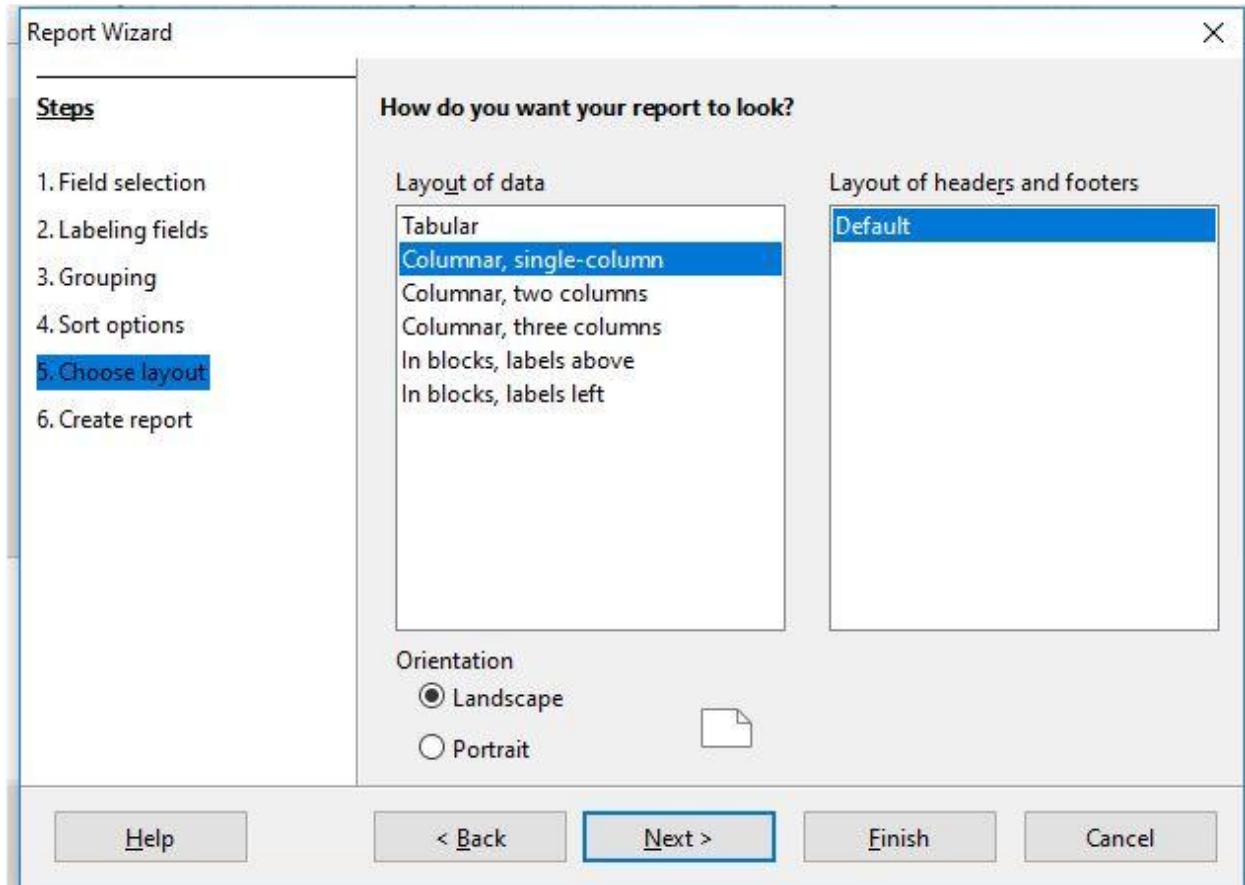
1. Use Report Wizard.
2. Select the **Equipment** table.



3. Add fields like EquipmentName, Category, Quantity, Condition.



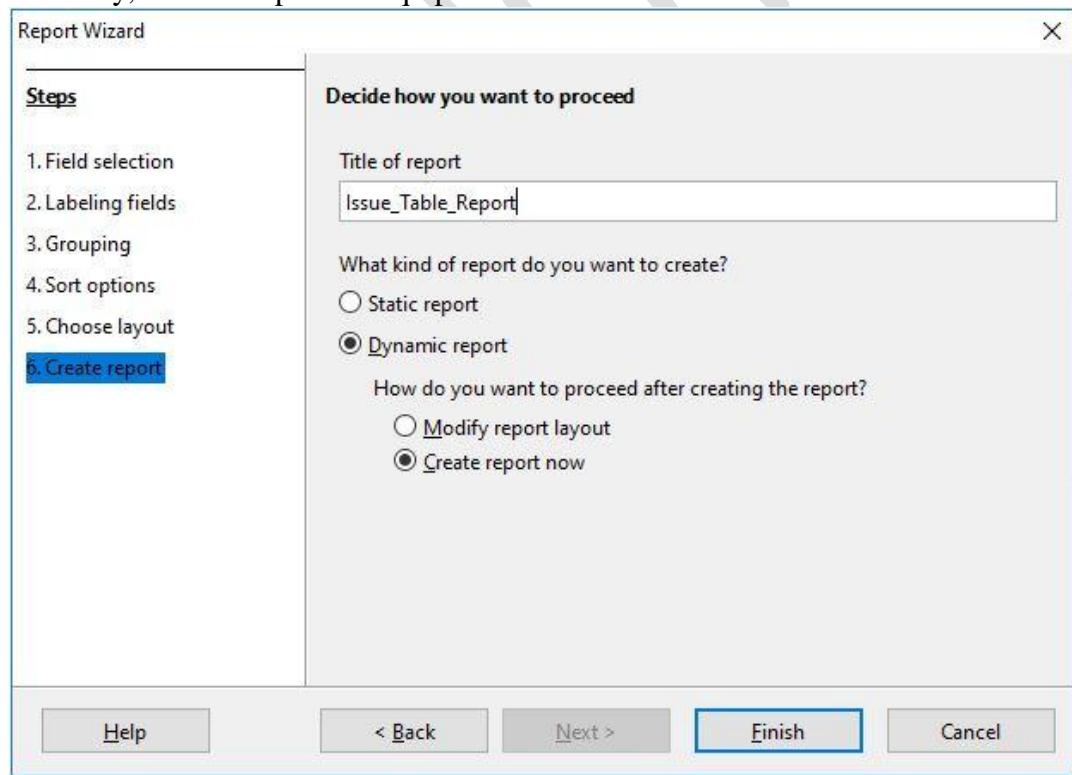
4. Choose a tabular or column layout.



5. Save report as **EquipmentReport**.

EquipmentID	0
EquipmentName	Football
Category	Outdoor
Quantity	10
Condition	Good
EquipmentID	1
EquipmentName	Cricket Bat
Category	Outdoor
Quantity	15
Condition	Good
EquipmentID	2
EquipmentName	Badminton Rocket
Category	Indoor
Quantity	20
Condition	Good
EquipmentID	3
EquipmentName	Volley Ball
Category	Outdoor
Quantity	8

Similarly, create a report for equipment issues.



B.Issue Report-

Issue Table Report	
This document is open in read-only mode.	
IssueID	0
EquipmentID	0
IssuedTo	Umesh Banjare
IssueDate	19/10/25
ReturnDate	15/11/25
IssueID	1
EquipmentID	1
IssuedTo	Aarav Banjare
IssueDate	15/10/25
ReturnDate	11/10/25
IssueID	2
EquipmentID	2
IssuedTo	Rahul kumar
IssueDate	10/07/25
ReturnDate	12/07/25
IssueID	3
EquipmentID	3
IssuedTo	Anjali
IssueDate	11/07/25

5. Conclusion

The Sport Equipment Inventory Management System helps maintain all sports items in an organised and reliable way. It removes the problems that usually occur with manual registers and ensures that every item is recorded correctly. The system makes it easier to track available equipment, issued items and damaged stock. It also saves time for teachers and staff by providing quick access to information and reducing paperwork. Overall, this system improves efficiency, supports better decision-making and helps the sports department manage resources properly. It ensures smooth functioning of sports activities and provides better facilities to students and players..