

Database Management Systems

Lucidchart Tutorial



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Outline

- Unified Modeling Language (UML) and Tools
- Drawing Database Model Diagram Using Lucidchart



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Unified Modeling Language (UML)

- UML is a general-purpose **modeling language** in the field of **software engineering**.
- It is designed to provide a standard way to visualize the design of a model.
- It was created and developed by Grady Booch, Ivar Jacobson and James Rumbaugh at Rational Software during **1994-95**.
- It was adopted as a standard by the **Object Management Group (OMG)** in 1997, and has been managed by the OMG since.
- It was also accepted by the **International Organization for Standardization (ISO)** as an ISO standard in 2000.



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UML Tools

| Tool | Vendor | Platform | First release | Latest release |
|--|--|-----------------------|---------------|----------------|
| <u>Eclipse</u> | <u>Eclipse</u> | Cross-platform (Java) | 2001 | 2021 |
| <u>JetUML</u> | <u>JetUML</u> | Cross-platform (Java) | 2015 | 2021 |
| <u>Lucidchart</u> | <u>Lucid Software</u> | Web-based | 2008 | 2021 |
| <u>NetBeans</u> | <u>Oracle</u> | Cross-platform (Java) | 1996 | 2021 |
| <u>Rational Rhapsody</u> | <u>IBM</u> | Windows, Linux, MacOS | 1996 | 2020 |
| <u>Visio</u> | <u>Microsoft</u> | Windows | 1992 | 2020 |
| <u>Visual Paradigm</u> | <u>Visual Paradigm</u> | Cross-platform (Java) | 2002 | 2020 |
| <u>yEd</u> | <u>yWorks</u> | Cross-platform (Java) | 2007 | 2021 |

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Step 1: Go To lucidchart.com



Enterprise Solutions Resources Pricing

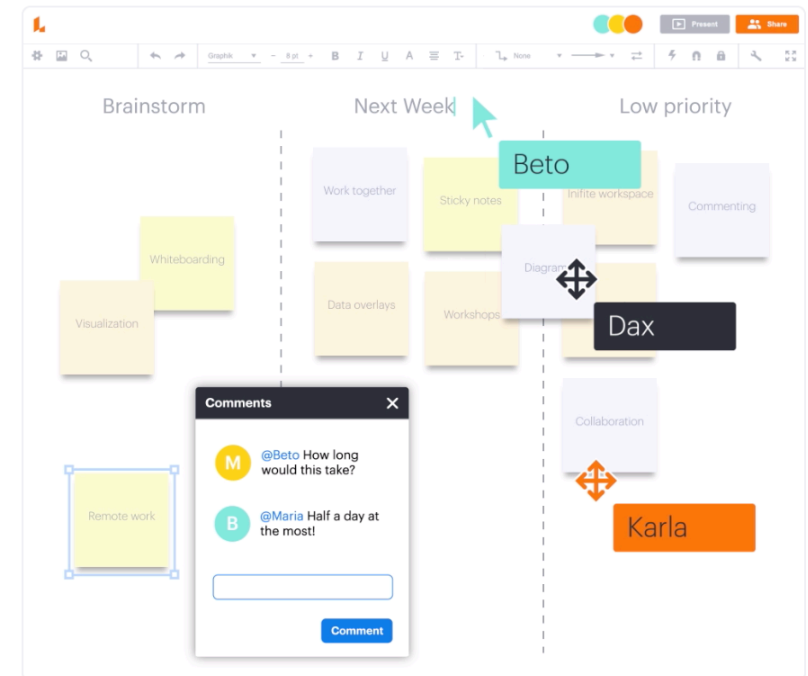
Sign up free

Log in

The visual workspace for remote teams

Accomplish more by collaborating in real time. Accelerate understanding and drive innovation with powerful diagramming, whiteboarding, and data visualization. Sign up for a free trial today.

Sign up free



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Step 2: Log In with Google



Contact Sales

Log in

Email address

☒ Remember me

[Log in with password](#)

Next

or log in with



Google



Office 365

YAHOO!

Don't have an account? [Sign up free](#)

Share your work via Lucidchart to enjoy:


- 🕒 Real-time collaboration
- 💬 Commenting capability
- 🔒 Permission control



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Step 3: Log In with @umd.edu Account

Sign in with Google



Choose an account

to continue to [Lucidchart](#)

 Use another account

To continue, Google will share your name, email address, language preference, and profile picture with Lucidchart. Before using this app, you can review Lucidchart's [privacy policy](#) and [terms of service](#).

English (United States) ▼

[Help](#)

[Privacy](#)

[Terms](#)



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Step 4: New Blank Document

The screenshot shows the Lucidchart web application interface. On the left sidebar, the 'New' button is highlighted in orange, and the 'Blank Document' option is selected and highlighted with a red rectangle. Below it are options for 'Document from Template', 'Import', 'Folder', and 'Team Folder'. The main area displays a 'Welcome, Adam!' message, a search bar, and tabs for 'Recent Documents' and 'Recommended For You'. A 'More Templates' button is visible. At the bottom, there are two video thumbnails titled 'ALIGN AND DISTRIBUTE OBJECTS' and 'HOW TO MAKE CUSTOM LINES', both labeled 'SHORT CUTS'. On the right, an 'Education Center' sidebar lists links for 'What's New', 'Getting Started', 'Tips and Tricks', 'Solutions', and 'Help Center'.

Lucidchart

Welcome, Adam!

Search documents

+ New

- Blank Document
- Document from Template
- Import
- Folder
- Team Folder

Recent Documents **Recommended For You**

More Templates

What would you like to do?

ALIGN AND DISTRIBUTE OBJECTS

HOW TO MAKE CUSTOM LINES

Education Center

- What's New**
New features and updates
- Getting Started**
Use these basic tutorials to create and share diagrams
- Tips and Tricks**
Discover pro tips to become more efficient
- Solutions**
See how Lucidchart can impact your role
- Help Center**
Troubleshoot, learn more, or contact support

Step 5: Start Editing with More Shapes

The screenshot shows the 'Manage Library' dialog box in a diagramming application. The 'Shapes' tab is selected, and the 'Entity Relationship' shape is highlighted in the 'Standard' category. The 'Entity Relationship' shape is a rectangle with a grid pattern. The 'Entity Relationship' shape is also selected in the 'Entity Relation...' section of the dialog. The 'Entity Relationship' shape is also selected in the 'Entity Relation...' section of the dialog.

Blank ERD

File Edit View In Manage Library

Import Shapes: Visio Stencil SVG

Search

Standard

- ☒ Default
- ☒ Flowchart Shapes
- ☐ Geometric Shapes

Software

- ☐ UML
- ☒ Entity Relationship
- ☐ UI Mockups
- ☐ Android Mockups
- ☐ iOS Mockups
- ☐ Site Maps

Business

- ☐ Data Flow
- ☐ BPMN 2.0
- ☐ Org Charts
- ☐ Value Stream
- ☐ Tables

Entity Relationship

Model databases in an easy-to-read format with entity relationship diagrams. You can get started with our shapes, which include constraints, entities, relationships, and attributes.

☒ Entity Relation...

Cancel Save

Page 1

75%

Step 6: Add Entity and Change Corners

The screenshot displays the UML modeling software interface. The top menu bar includes 'Blank ERD' and 'Woei-Jyh Lee'. The main toolbar contains various icons for shapes, text, and editing. A red box highlights the 'Entity' icon in the toolbar. The left sidebar shows the 'Standard' and 'Entity Relati...' categories. The main workspace shows a diagram with an entity 'Entity' and three fields 'Field', 'Field', and 'Field'. A red box highlights the 'Entity' icon in the toolbar. The right sidebar shows various icons for navigation and editing. The bottom status bar shows 'Page 1' and a zoom level of '75%'.

Blank ERD Woei-Jyh Lee

File Edit View Insert Arrange Share Help Saved Feature Find Present Share

Shapes Standard Entity Relati... Import Export + Shapes

Entity

Field

Field

Field

1.250 in 0.850 in 0°

WIDTH HEIGHT ROTATION

0.500 in 0.500 in

X POSITION Y POSITION FLIP

SHAPE OPACITY 100 %

0 px

ROUNDED

Shadow

Page 1 75%

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Step 7: Change Alignments

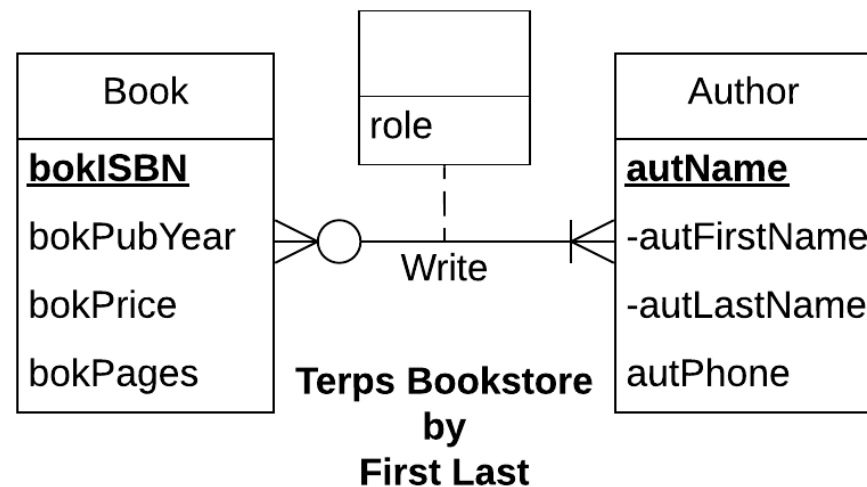
The screenshot displays a UML modeling application window titled "Blank ERD". The interface includes a top menu bar with "File", "Edit", "View", "Insert", "Arrange", "Share", "Help", and "Saved". A right-hand toolbar contains "Feature Find", "Present", and "Share" buttons. Below the menu is a formatting toolbar with options for font (Liberation Sans, 8 pt), bold, italic, underline, and alignment. The alignment section is highlighted with a red box, showing a dropdown menu with options for left, center, and right alignment, as well as top, middle, and bottom alignment. The main workspace shows a diagram with an entity box labeled "Entity" containing three fields labeled "Field". The diagram is on a grid with a vertical axis labeled 0, 1, 2, 3 and a horizontal axis labeled 0, 1, 2, 3, 5, 6. The bottom status bar shows "Page 1" and a zoom level of "75%".

Step 8: Adjust Number of Fields

The screenshot displays the 'Blank ERD' software interface. The top toolbar contains a 'FIELDS' tab, which is highlighted with a red rectangle. The interface includes a menu bar (File, Edit, View, Insert, Arrange, Share, Help, Saved), a status bar (Page 1, 75%), and a sidebar with 'Standard' and 'Entity Relati...' sections. The main workspace shows a diagram of an entity with four fields, connected by lines. The 'Entity' label is at the top, and the 'Field' labels are listed vertically on the left side of the diagram.

Step 9:

1. Name entity, add attributes, mark primary key
2. Add relationship with name, set cardinalities
3. Add attribute to relationship
4. Name the diagram



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