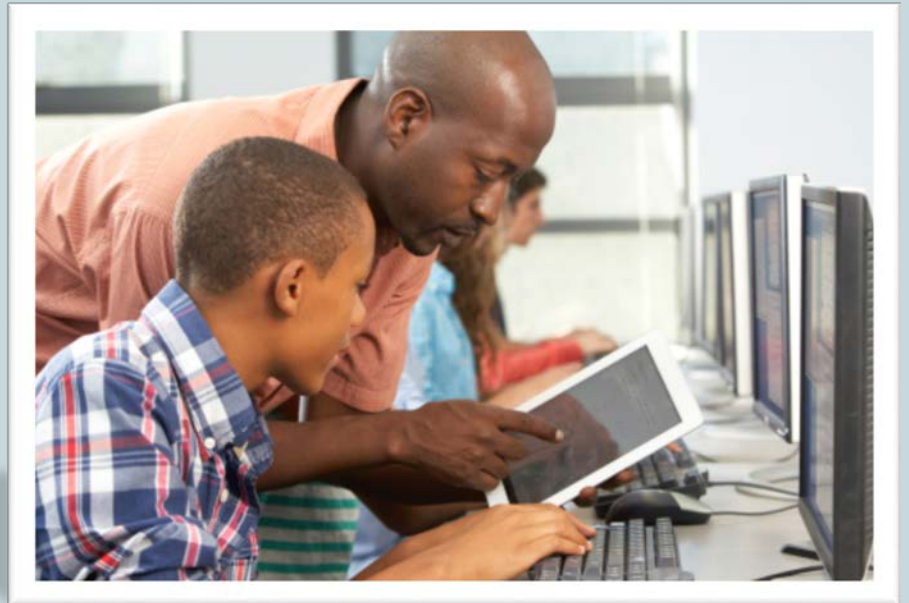




Database Design

8-4

Drawing Conventions for Readability



Objectives

This lesson covers the following objectives:

- Apply the Oracle drawing conventions to a data model diagram
- Identify high volume entities in a data model diagram and explain their significance to the business
- Redraw a given data model diagram to increase clarity and readability
- Recognize the usefulness of dividing a complex ERD into a number of functional sub-diagrams



Purpose

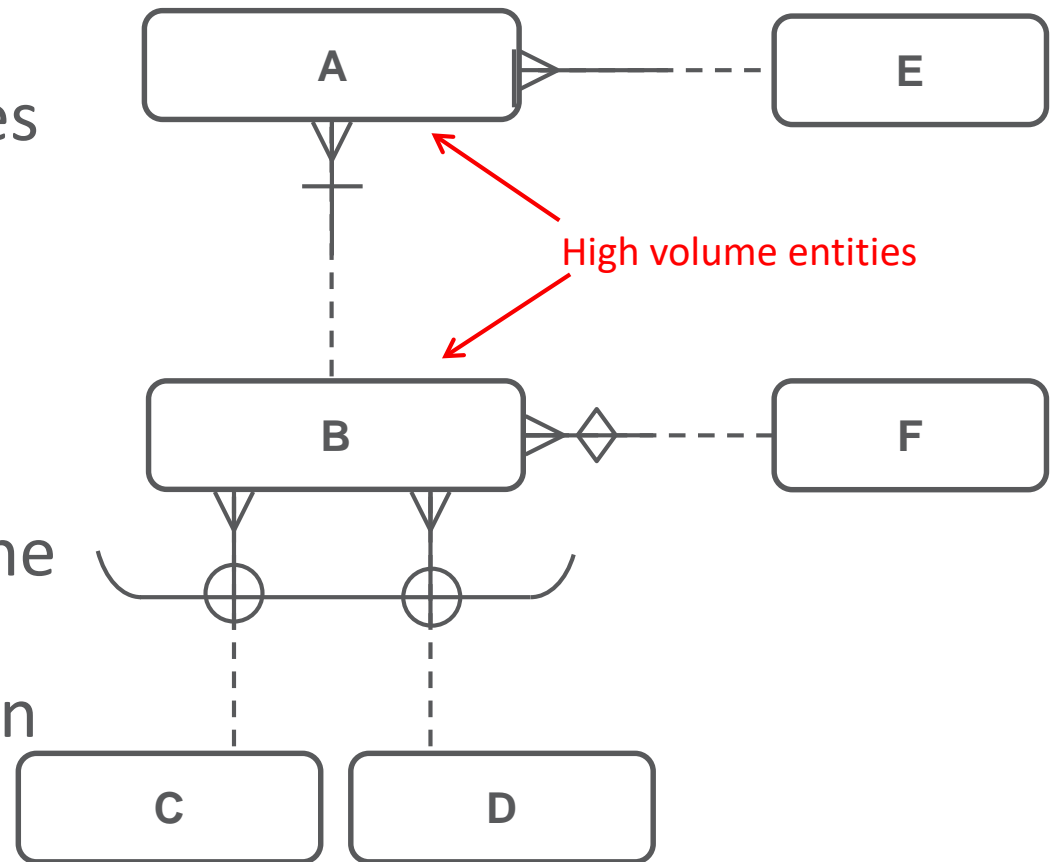
- What if all shoemakers made up their own sizes?
- What if every architect used a different system to draw plans for a building?
- Following the same conventions makes it easier to work as part of a team.

Large ERD Drawing Conventions

- The bigger and more complicated an ERD gets, the more challenging it becomes to lay out the pieces in a clear and readable format.
- There are two drawing conventions that are widely in use:
 - one that places high volume entities towards the top left of the page, and one that places high volume entities towards the bottom right of the page.
- It is not important which convention you follow, but chose one and try to use it consistently.
- A High-volume entity is an entity that will have a large number of instances.

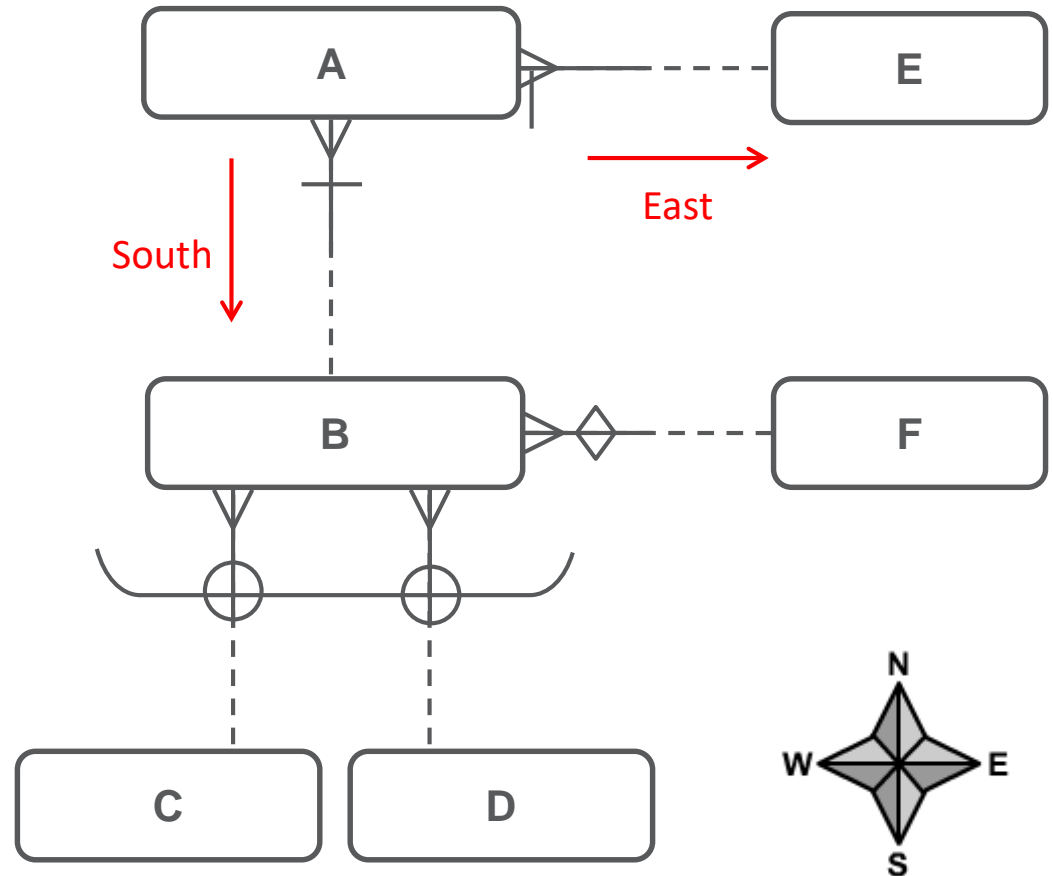
Large ERD Drawing Conventions

- High volume entities are often the “central” or more important entities in an ERD.
- They will have the highest number of relationships to other entities, and most of the business functions will affect the data stored in these entities.



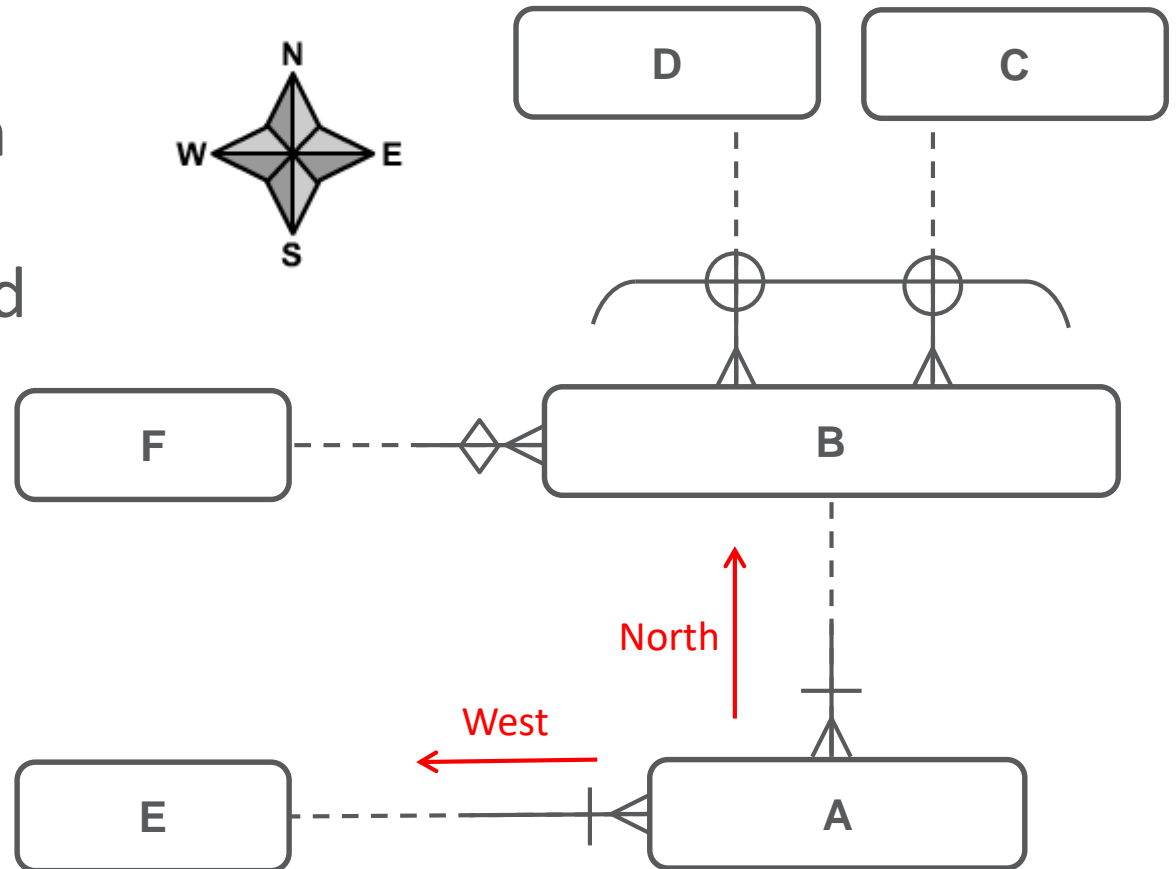
Large ERD Drawing Conventions

- When high volume entities are on the upper left portion of the ERD, the crows feet will tend to point south and east.



Large ERD Drawing Conventions

- When high volume entities are on the lower right portion of the ERD, the crows feet will tend to point north and west.



Clarity is Key

- Use conventions sensibly.
- The major goal of creating the diagram is to give a representation of the model that can be used for communication purposes.
- This means that you must never let a convention interfere with readability and clarity.
- Often you will have a mix of conventions, depending on the amount of space you have and your own preference.
- Clarity and readability are the main criteria.



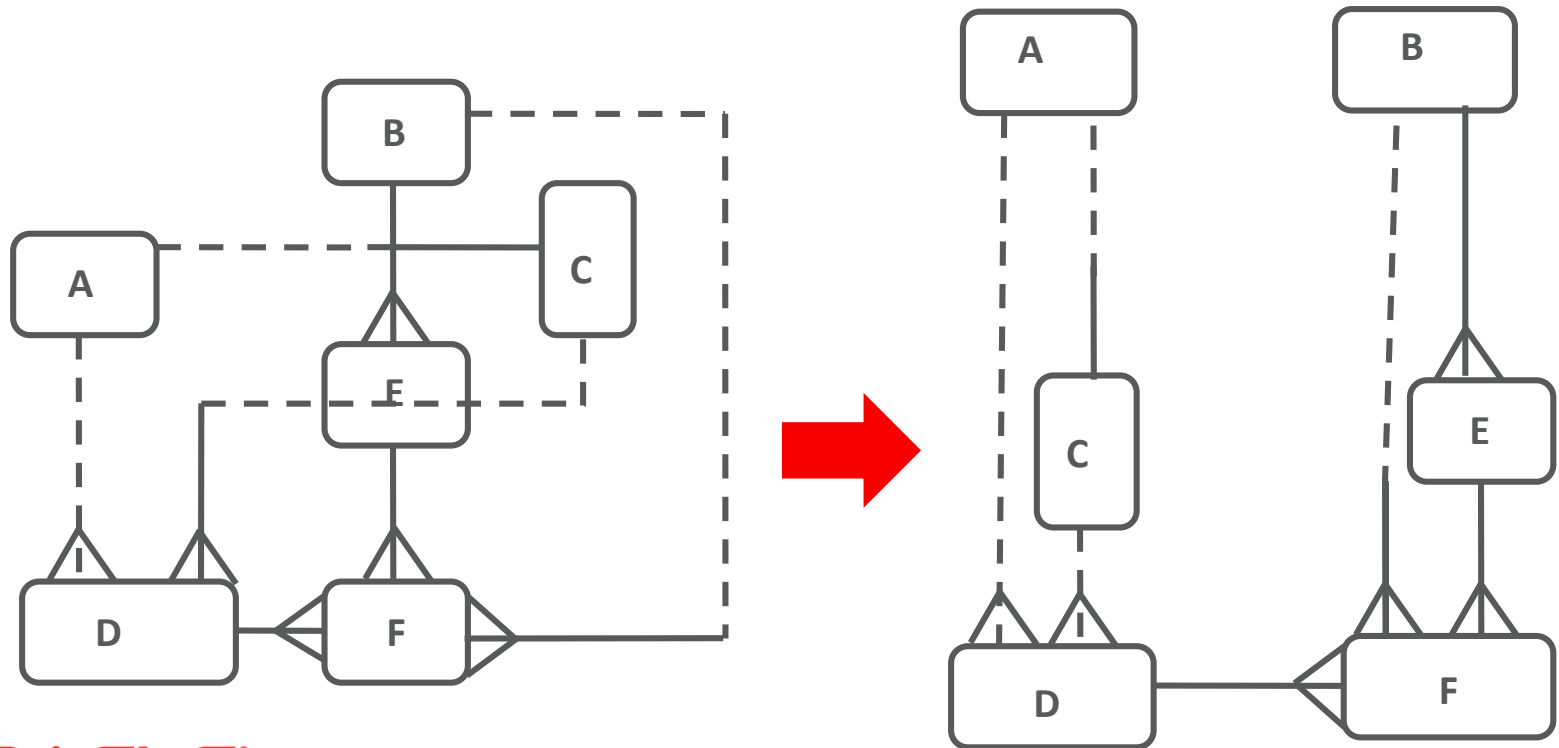
Clarity is Key

For clarity and readability in an ERD:

- Avoid crossing relationship lines
- Avoid entities that overlap
- Avoid relationship lines that cross entities
- Use plenty of “white space”
- Split larger ERDs into smaller sub-diagrams if required

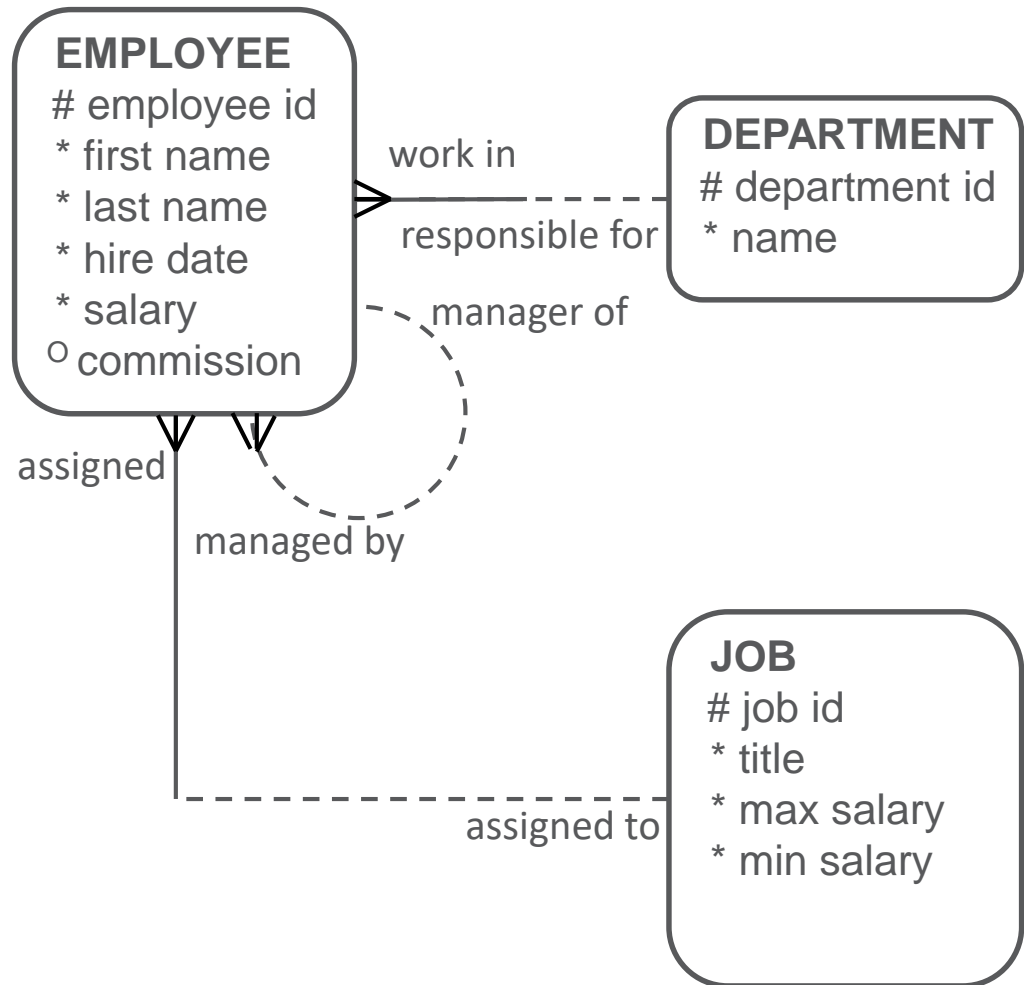
Space is Needed

- Readability takes space and is subject to taste. The use of white space helps clarify an ERD.



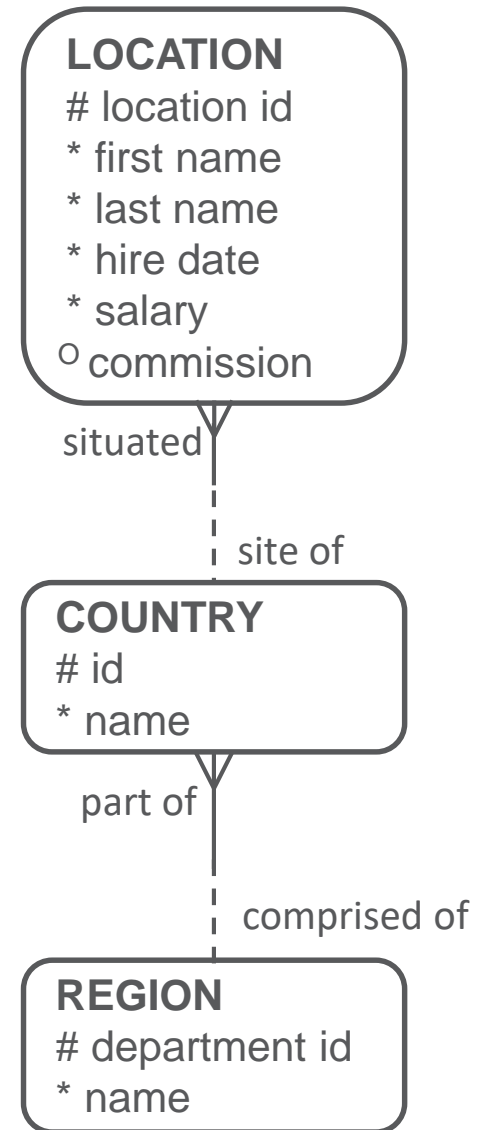
Use Sub-Diagrams

- When you have a very large diagram, it may also help to break it up into smaller diagrams of functionally related entities.



Use Sub-Diagrams

- You could use the smaller sub-diagrams when presenting to different groups within the customer's company.
- It is still important to have a big diagram that shows the whole picture (even if it has to be printed on a plotter or taped together from smaller pieces of paper).
- There may be relationships between entities in different sub-models, and these must be represented somewhere.



Terminology

Key terms used in this lesson included:

- High volume entity
- White space

Summary

In this lesson, you should have learned how to:

- Apply the Oracle drawing conventions to a data model diagram
- Identify high volume entities in a data model diagram and explain their significance to the business
- Redraw a given data model diagram to increase clarity and readability
- Recognize the usefulness of dividing a complex ERD into a number of functional sub-diagrams

