

[Home](#) [Read](#) [Sign in](#)

DATABASE DESIGN – 2ND EDITION

CONTENTS

Appendix B Sample ERD Exercises

Exercise 1

Manufacturer

A manufacturing company produces products. The following product information is stored: product name, product ID and quantity on hand. These products are made up of many components. Each component can be supplied by one or more suppliers. The following component information is kept: component ID, name, description, suppliers who supply them, and products in which they are used. Use Figure B.1 for this exercise.

Create an ERD to show how you would track this information.

Show entity names, primary keys, attributes for each entity, relationships between the entities and cardinality.



[Previous: Appendix A University Registration Data Model Example](#)

[Next: Appendix C SQL Lab with Solution](#)

- A supplier can exist without providing components.
- A component does not have to be associated with a supplier.
- A component does not have to be associated with a product. Not all components are used in products.
- A product cannot exist without components.

[Increase Font Size](#)

ERD Answer

Component(CompID, CompName, Description) PK=CompID

Product(ProdID, ProdName, QtyOnHand) PK=ProdID

Supplier(SuppID, SuppName) PK = SuppID

CompSupp(CompID, SuppID) PK = CompID, SuppID

Build(CompID, ProdID, QtyOfComp) PK= CompID, ProdID

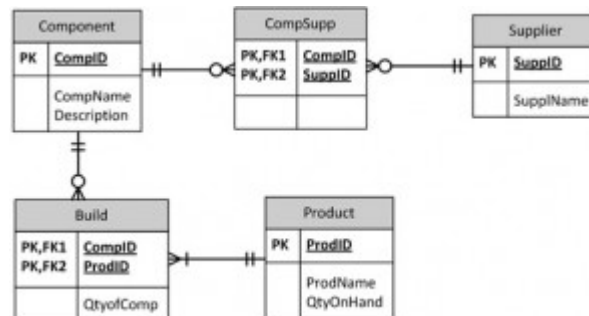


Figure B.1 by A. Watt.

Exercise 2

Car Dealership

Create an ERD for a car dealership. The dealership sells both new and used cars, and it operates a service facility (see Figure B.2). Base your design on the following business rules:

- A salesperson may sell many cars, but each car is sold by only one salesperson.

Previous: Appendix A University Registration Data Model Example

Next: Appendix C SQL Lab with Solution

[Increase Font Size](#)

Appendix B Sample ERD Exercises by
Adrienne Watt and Nelson Eng is
licensed under a Creative Commons
Attribution 4.0 International License,
except where otherwise noted.

Powered by Pressbooks

[Open Source](#) | [Open Textbooks](#) | [Open Book Publishing](#) | [Learn More](#)



[Previous: Appendix A University Registration Data Model Example](#)

[Next: Appendix C SQL Lab with Solution](#)