

# Module 1: Entity Relationship Models

- Welcome on board!
- This module will introduce you to Database Management Systems, especially Relational Databases.
- Building Entity Relationship Models is the first step to put Ideas into Models.



# Learning Objectives

- Finishing this module, you will be able to:
  - Describe the need for DBMS(Database Management Systems)
  - Explain the pros and cons for different DBMS
  - Understand and explain **Entities** and **Attributes**
  - Understand and explain **Relationships** and **Cardinalities**
  - Draw **ERD**(Entity Relationship Diagrams)
  - Draw **ERAD**(Entity Relationship Attribute Diagrams)



# Introduction

- Why we need Database Management Systems?

# Example

- Data: \$350
- Information: A share of GameStop as of Jan 29
- Knowledge: Comparing to the price \$17.25 of a share as of Jan 4, the price rises around 2000% in a month
- Intelligence: Buy or Sell?



# What Is Data?

- Data
- Information
- Knowledge
- Intelligence

