

CS 166: Project Phase 2 Requirements

October 15, 2022

1 Introduction

In this phase you are given an ER-Diagram (a possible solution of phase 1) and you are asked to convert it into the ANSI compliant relational model. This ER model has some slight changes from the model given in Phase 1, and it is designed for a simple but generic model for implementation and possible extension on features. So please pay special attention to the given ER model and attributions in this document, instead of sticking to your solution submitted for Phase 1.

The ANSI Relational Model is described in Chapter 3 of your textbook. Please consider any required integrity constraints over relations. In this phase you are not allowed to do any assumptions since you are asked to make a precise translation of the ER model into the relational model. This means you should specify necessary constraint keywords like NOT NULL, UNIQUE, PRIMARY KEY, FOREIGN KEY REFERENCES, etc. The due date for this phase is **11:59pm, Friday, October 21, 2022**. Please submit your relational model as a single re-creatable SQL script file containing CREATE TABLE statements with required constraints and necessary DROP TABLE statements.

2 ER-Diagram

The ER-Diagram for Phase- 1 is showed in Figure 1. The attributes of all entities and the attribute domains are listed below.

- Primary keys are shown in bold. Note that your relational tables could have additional attributes due to foreign key constraints.
- The fourth column below shows attribute-specific constraints, however this is not an exhaustive list. Additional constraints might be applied due to relationships between tables.

Entity	Attribute Name	Attribute-Domain	Additional Constraints
Store	StoreID	int	unique, not null
	Name	char(30)	not null
	Latitude	decimal(8,6)	not null
	Longitude	decimal(9,6)	not null
	DateEstablished	date	
Product	ProductName	char(30)	not null
	NumberOfUnits	int	not null
	PricePerUnit	int	not null
	Description	char(100)	
	ImageURL	char(30)	
User	UserID	int	unique, not null
	Password	char(11)	not null
	Name	char(50)	not null
	Email	char(50)	
Customer	CreditScore	int	
	Latitude	decimal(8,6)	not null
	Longitude	decimal(9,6)	not null
Manager	Degree	char(20)	
	Salary	int	not null
Warehouse	WarehouseID	int	unique, not null
	Area	int	
	Latitude	decimal(8,6)	not null
	Longitude	decimal(9,6)	not null

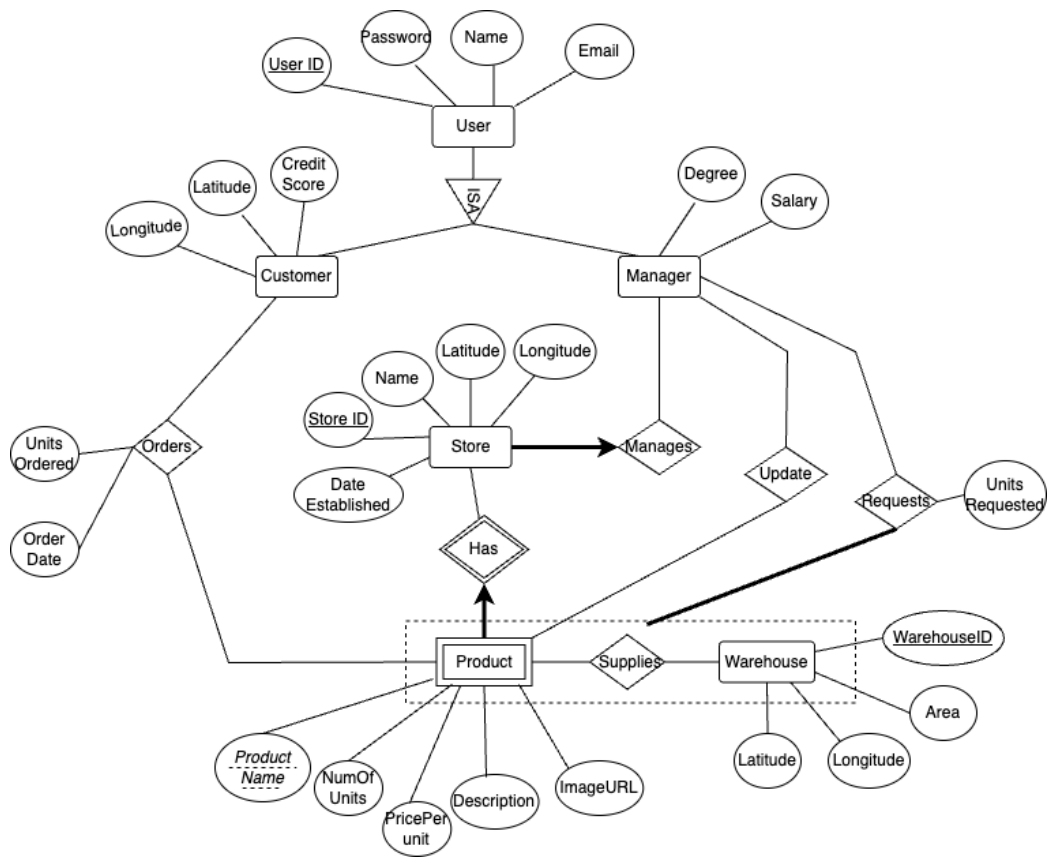


Figure 1: ER-diagram for Phase 1