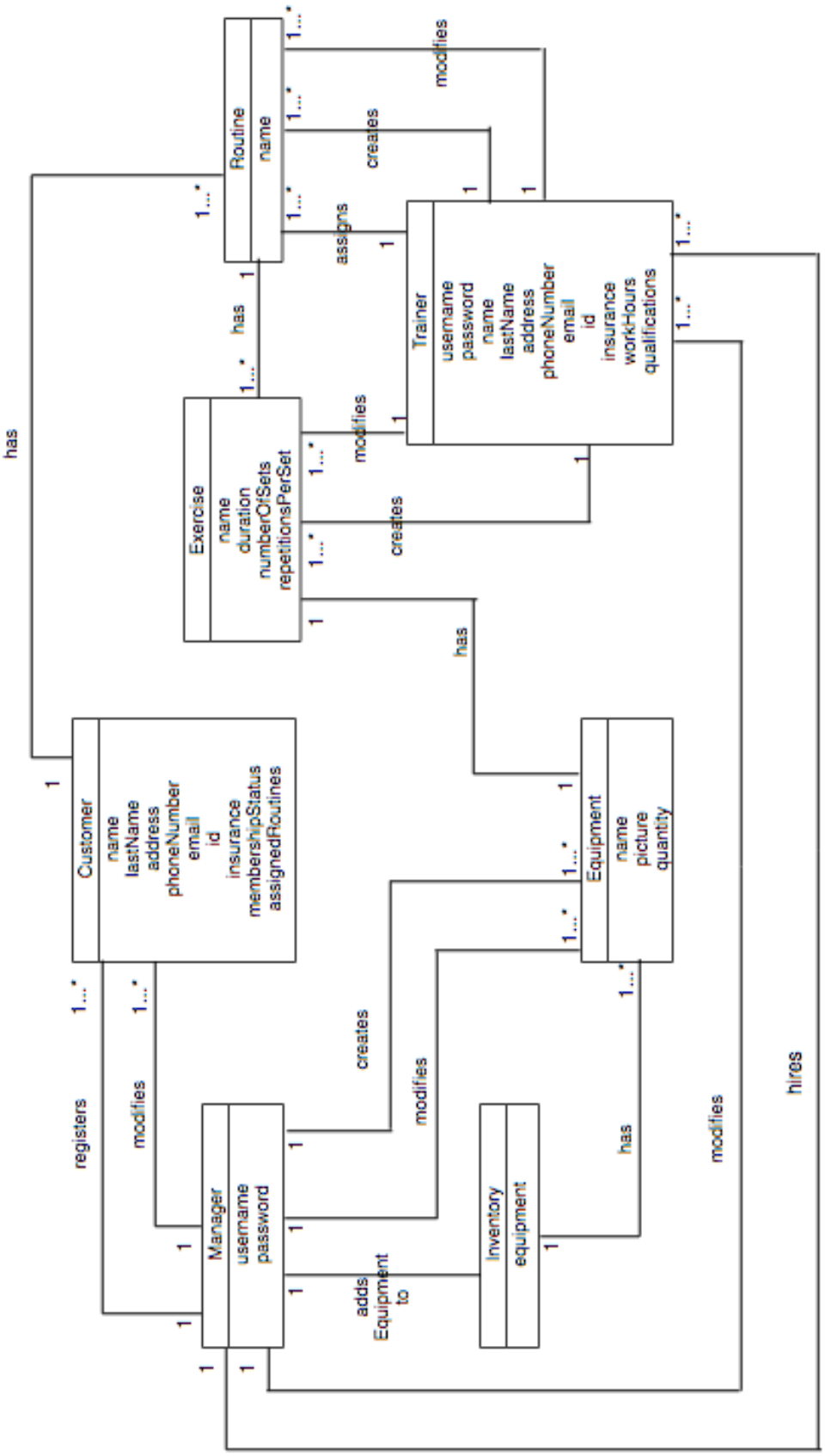
Domain Model



Glossary

Version	Date	Description	Author
Inception Draft (Iteration 2)	9/30/17	Second draft. Current revision made after realizing a class diagram and not a domain model was previously implemented. To be continuously refined primarily during elaboration (Iteration 3, 4)	Ashton Creel

Term	Definition	Information
GGMS	Globo Gym Management System is the system in which a User (authenticated as a Manager/Trainer) can perform actions against.	- This system is to support the management of an indoors gym.
Manager	The Manager class in GGMS whose instances have the ability to create/modify Trainers, Customers, and Equipment. They are also able to add Equipment to the Inventory.	- There can be multiple instances of this class created and added to GGMS (by registering a username and password without a Trainer id association). - In order to modify, a search for the Trainer, Customer, or Equipment to modify must be made.
Trainer	The Trainer class in GGMS whose instances have the ability to create/modify Exercises and Routines. They are also able to assign a Routine to a Customer.	- There can be multiple instances of this class created and added to GGMS. - In order to modify, a search for the Exercise or Routine to modify must be made. - In order to assign, a search for the Customer to assign the Routine to must be made.
Customer	The Customer class in GGMS whose instances have a list of Routines that are assigned to it by a Trainer.	- There can be multiple instances of this class created and added to GGMS. - Has no credential access to GGMS.
Exercise	The Exercise class in GGMS with no methods.	- There can be multiple instances of this class created and added to instances of a Routine.

Routine	The Routine class in GGMS with no methods.	- There can be multiple instances of this class created and assigned to Customers instances in GGMS by a Trainer instance.
Equipment	The Equipment class in GGMS with no methods.	- There can be multiple instances of this class created and added to the instance of Inventory in GGMS.
Inventory	The Inventory class in GGMS that contains the collection of Equipment.	- There will be only one instance of this class created to contain Equipment for GGMS.
username	An attribute that is a credential to access GGMS.	- Must be type String. - Must be unique. - Must be at least 7 characters.
password	An attribute that is a credential to access GGMS.	- Must be at least 7 characters. - Must include at least 1 special character and 1 number.
name	The first name of a Trainer/Customer in GGMS.	- Must be type String. - Must be unique.
lastName	The last name of a Trainer/Customer in GGMS.	- Must be type String.
address	The street address of a Trainer/Customer in GGMS.	- Must be type HashMap<String, String> - Should be stored with the following keys: street, city, state, zip_code - Validate accuracy of address data against Google Maps API
phoneNumber	The primary phone number for a Trainer/Customer in GGMS.	- Must be type Integer. - Must be at least 10 digits.
email	The primary email address for a Trainer/Customer in GGMS.	- Must be type String. - Must pass validation in JavaMail API (Checks for '@' symbol and '.com', '.edu', '.org', etc.)
id	The primary identifier for a Trainer/Customer in GGMS.	- Must be type String. - Must start with 'T'/'C', respectively, and end in a numerical value (e.g. 'T0', 'C0', 'T1', 'C1', 'T25', 'C25').
insurance	The primary health insurance provider for a Trainer/Customer in GGMS.	- Must be type String.

workHours	The Sunday – Saturday work schedule for a Trainer in GGMS.	- Must be type HashMap<String, ArrayList <LocalTime>> - Must contain a value for each key. - Should be stored with the following String keys: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday - Should be stored in the following format for the values: [startTime+'AM/PM', endTime+'AM/PM'] - startTime, endTime must be of type java.time.LocalTime - This type stores time without a time-zone in the ISO-8601 calendar system (e.g., 10:15:30) - Example format - {Sunday=[10:30:00 AM, 2:30:00 PM], Monday=[], …, Saturday=[]})
qualifications	The list of accomplishments that a Trainer in GGMS has.	- Must be type ArrayList<String>
membershipStatus	The current status of a Customer membership in GGMS.	- Must be type Enum. - Must have Enum values of ACTIVE and INACTIVE.
assignedRoutines	The current routines assigned to a Customer in GGMS.	- Must be type ArrayList<Routine>
duration	The time period to perform an Exercise in GGMS.	- Must be type Duration. - This attribute is available when Exercise does not have a value for *numberOfSets* and *repetitionsPerSet*.
numberOfSets	The number of sets performed in an Exercise in GGMS.	- Must be type Integer - This attribute is available when Exercise does not have a value for *duration*. - This attribute must be non-null if *repetitionsPerSet* is non-null.

repetitionsPerSet	The number of repetitions performed of an Exercise per set.	- Must be type Integer - This attribute is available when Exercise does not have a value for *duration*. - This attribute must be non-null if *numberOfSets* is non-null.
equipment	The collection of Equipment entities included in the Inventory.	- Must be type ArrayList<Equipment>
picture	The picture for an Equipment in GGMS.	- Must be type Image - No standard size will be required
quantity	The quantity for Equipment in GGMS which is determined manually by the Manager.	- Must be type Integer

References:

1. https://stackoverflow.com/questions/624581/what-is-the-best-java-email-address-validation-method