

Group 10

Project Phase 1

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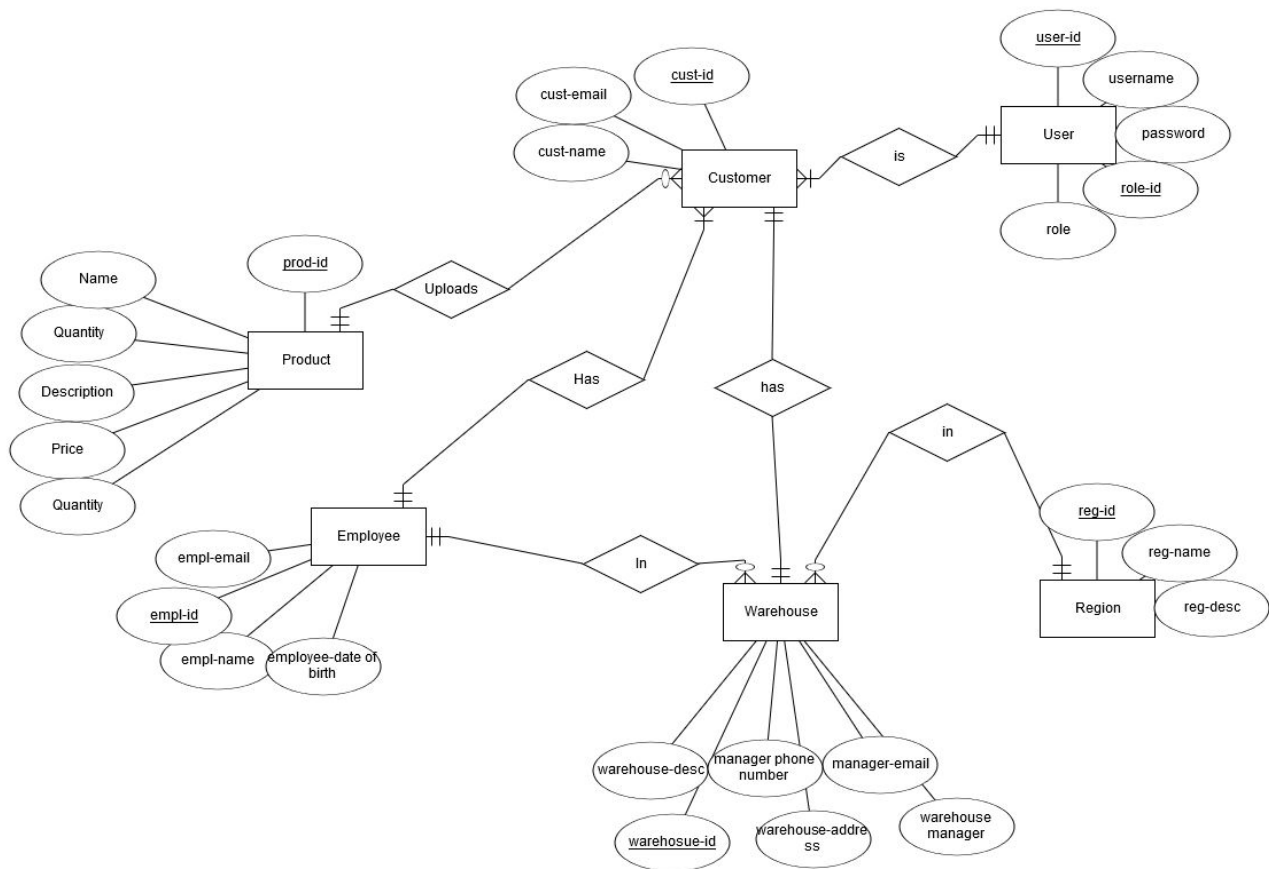
Online Distribution Center Project Outline

List of Requirements

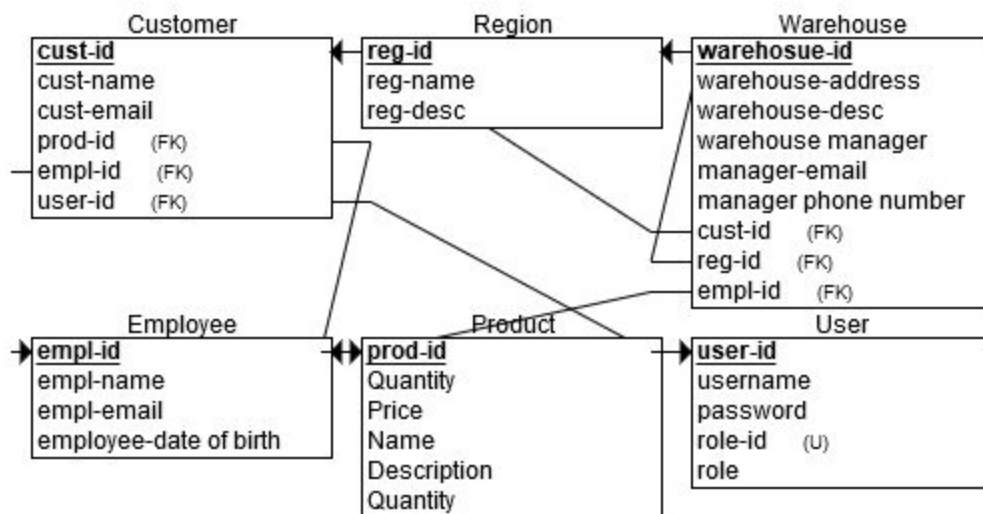
The online database and inventory management center will have several requirements which will need to be tested.

#	Requirement Description	Testing Criteria
R1	The application shall allow customers to register with the application. The application shall present the user with a registration form with the following fields: <i>Customer Name, Contact Name, Email, phone, region, address, major product line category</i>	User enters registration information and the data is stored in the database.
R2	Once a customer registers with the application the application shall generate a unique customer id.	A unique customer is stored in the database.
R3	The system will allow the customer to enter a password for her account. The password shall be 8 characters long and shall have at least one distinctive character and one uppercase character and a mixed alphanumeric value.	Customers password shall be encrypted and stored in the database.
R4	Entities that are related must include a primary key for easy lookup.	Maintain this in the database Schema.
R5	Out of stock items cannot be ordered	Maintain triggers within the database or software that will disallow this.
R6	Every product must have all of the fields filled in	Enforce NOT NULL rules in the database.
R7	Each region must have at least one warehouse	Enforce this relation via the database and the application
R8	One product must have one image	Enforce via database rule and application tests.
R9	Every user, customer, product, warehouse, region, and other classes will be based off of the database entries	Maintain database access operations within the software.
R10	An admin should be able to view and edit all information	Create a special admin role user and page for accessing all data.

Entity Relationship Diagram



Database Schema



Software Process Model

We will use the **Agile** model while developing our software. The primary goal is to get a product up and running while implementing other modules. The key is to get the database schema correct, and then base the user interface around it.

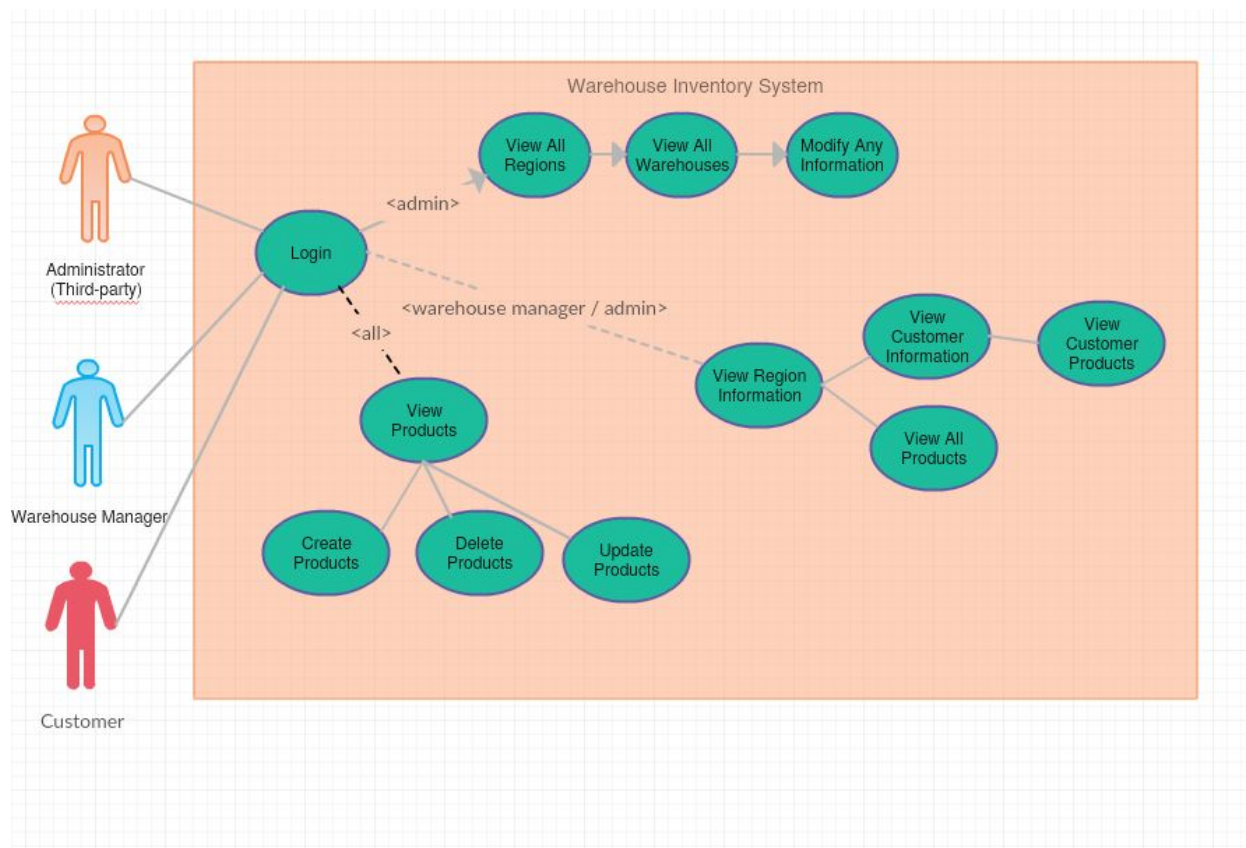
Development Environment

We will be using Ruby on Rails to create the application, as it works well as a MVC environment. The Database we will use will be SQLite, as it is natively supported by Ruby on Rails. The ORM will be Active Record, also used natively by Ruby on Rails.

Testing Methodology

Our software will be tested using Test-driven development which will require us to maintain the requirements. Each of the requirements must not be violated in the software function, and we will ensure this by performing the tests that we outline in the requirements table.

Use Case Diagram



UML Application Class Diagram

