

Lab: UML Class Diagram

Creating A Class Diagram

Introduction

For this assignment you will create a class diagram for a mechanic shop. You must produce the diagram using LucidChart. This is an **individual** lab. You may not work with another person.

Instructions

1. Create a Class Diagram to model a mechanic shop. Include the following classes in your diagram: MechanicShop, Mechanic, Car, CarPart, Engine, Wheel and Owner.
2. Include the following relationships in your diagram:
 - a. A composition relationship between MechanicShop and Mechanic
 - b. An association between MechanicShop and Car
 - c. A composition relationship between Car and CarPart
 - d. An inheritance relationship between CarPart and Engine
 - e. An inheritance relationship between CarPart and Wheel
 - f. An association between Mechanic and Car
 - g. An association between Car and Owner
3. Add multiplicity constraints and relationship names to the association relationships.
4. Add appropriate attributes for each class. You do not need to include methods.
5. You are allowed to use your UML cheat sheet and other online resources for this lab.
6. Submit your completed class diagram (as a PDF) to LearningSuite.