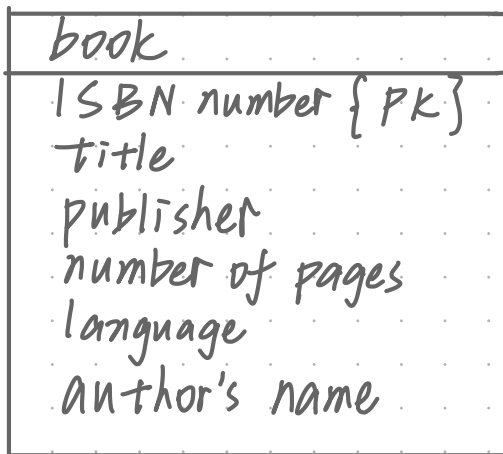
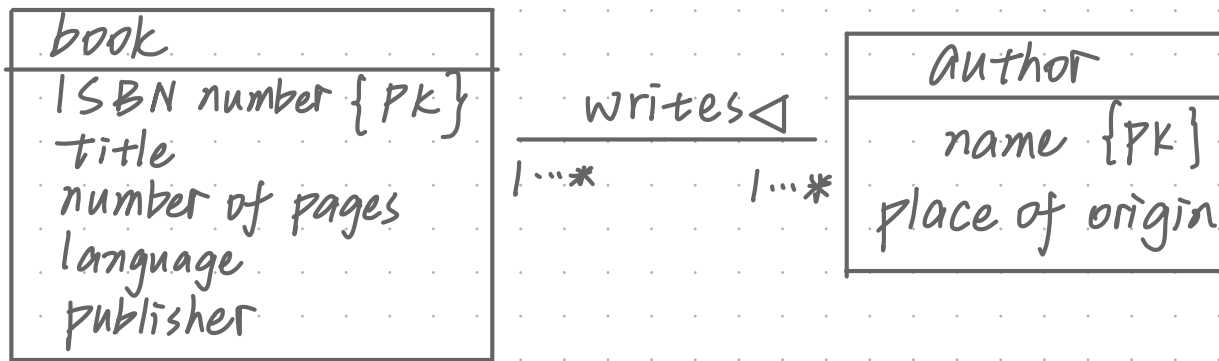


HW 1 9.11

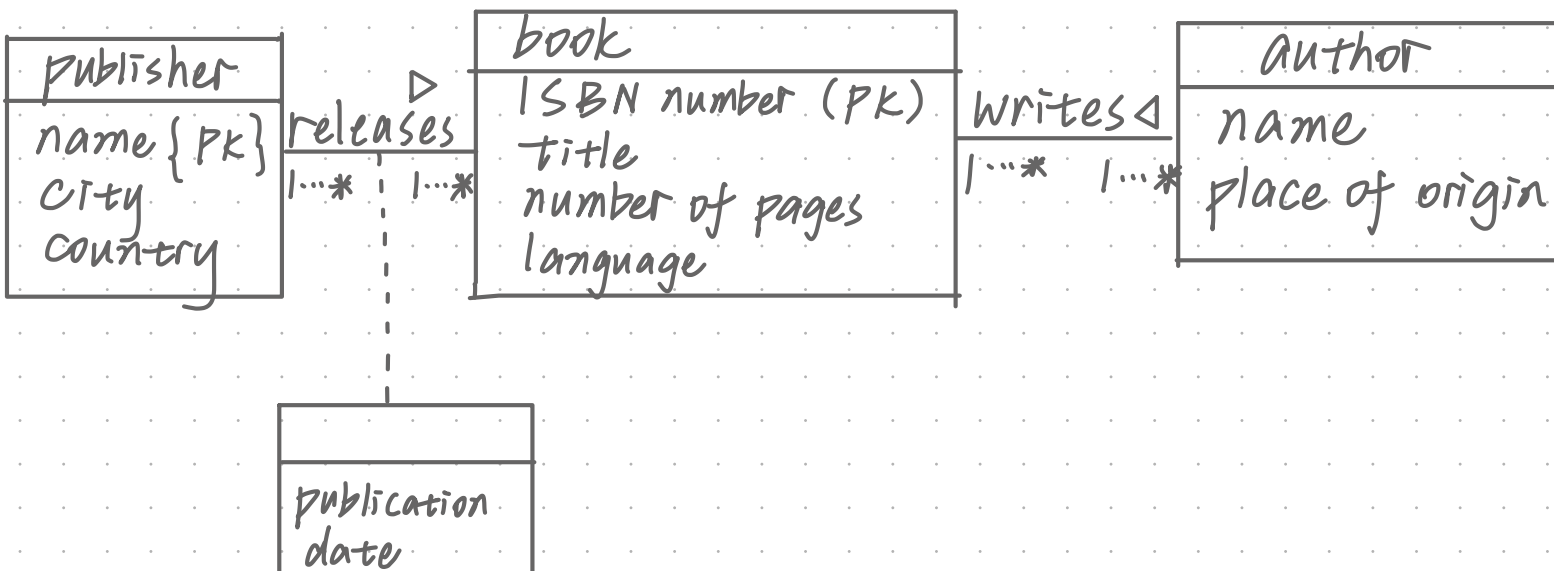
1. A book has a title, an ISBN number (a unique international book number), a publisher, a language it was written in, the total number of pages and an author's name.



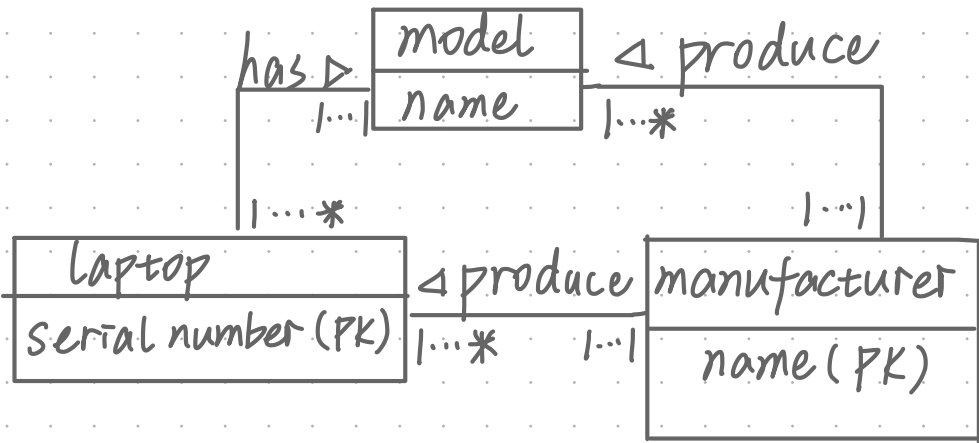
2. A book has a title, an ISBN number (a unique international book number), a publisher, a language it was written in, and the total number of pages. An author has a name and a place of origin. A book is written by one to many authors and an author writes 1 to many books.



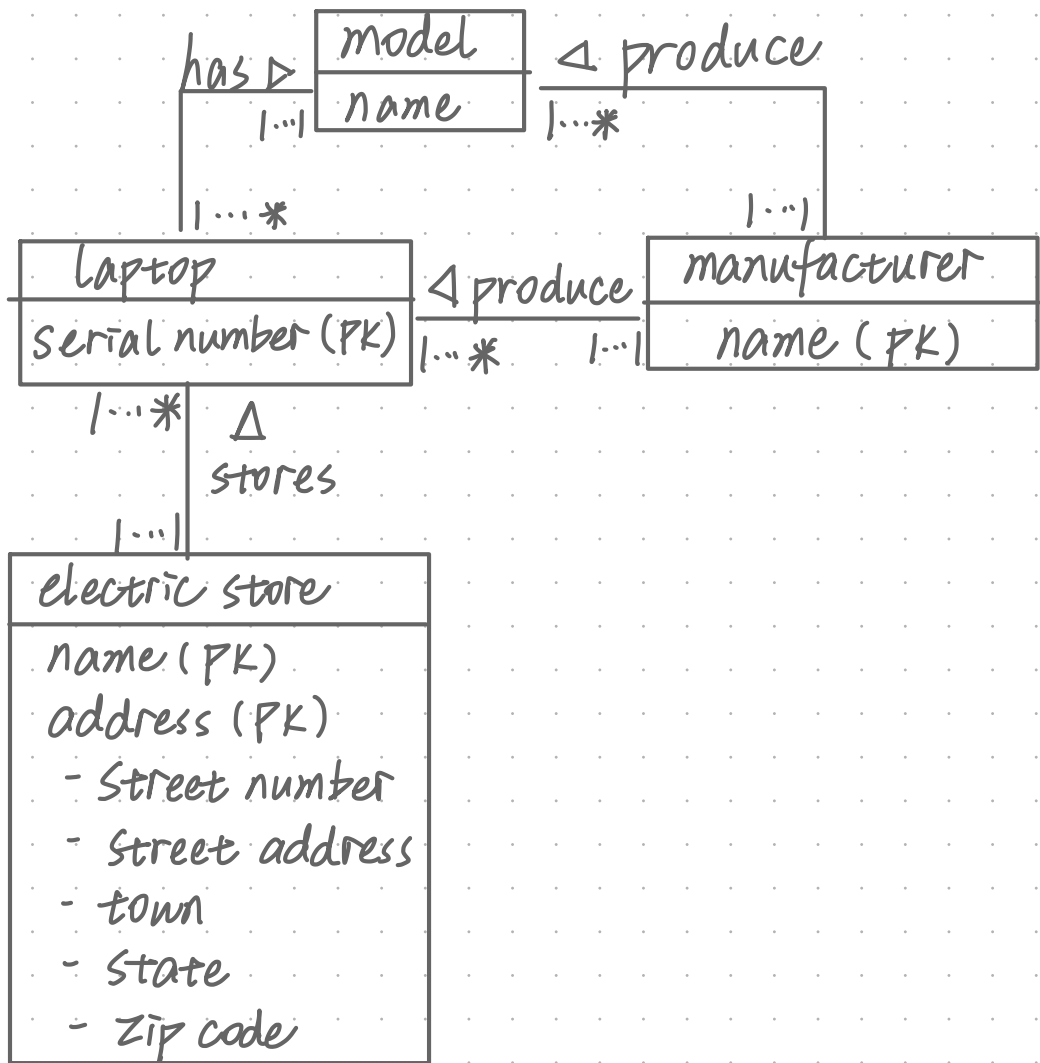
3. A book has a title, an ISBN number (a unique international book number), a language it was written in, and the total number of pages. An author has a name and a place of origin. A publisher has a name, a city and a country. A book is written by 1 to many authors. A publisher releases 1 to many books. A book can be released by one to many publishers. When a book is released by a publisher, there is a publication date.



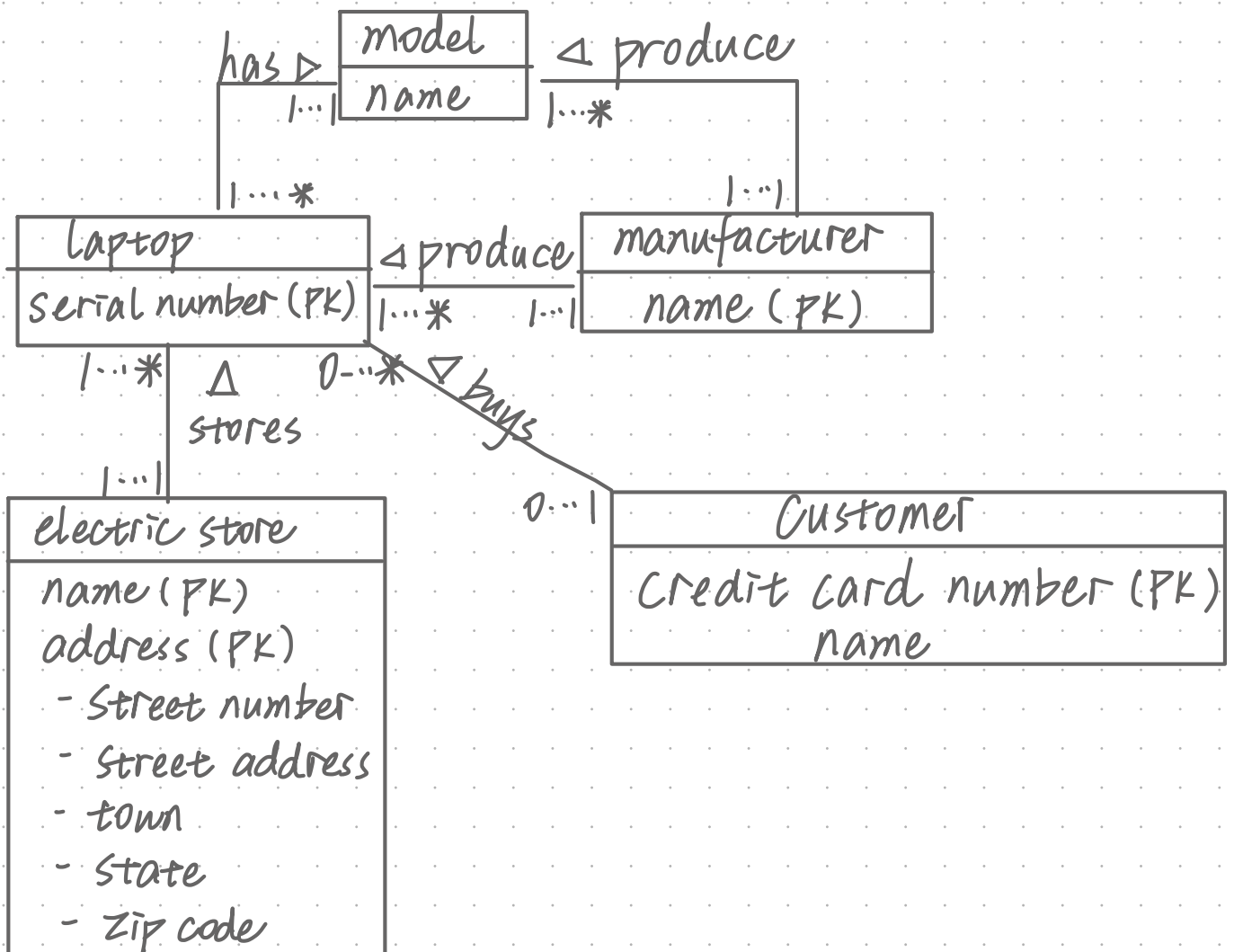
4. A laptop has a unique serial number and is associated with a specific manufacturer and a model for that manufacturer. Each laptop is associated with exactly 1 manufacturer and 1 model for that manufacturer. A manufacturer has a unique name. A manufacturer can produce 1 to many laptop models. A model name is unique for a specific manufacturer but is not unique across all manufacturers. A model name is associated with at least 1 manufacturer.



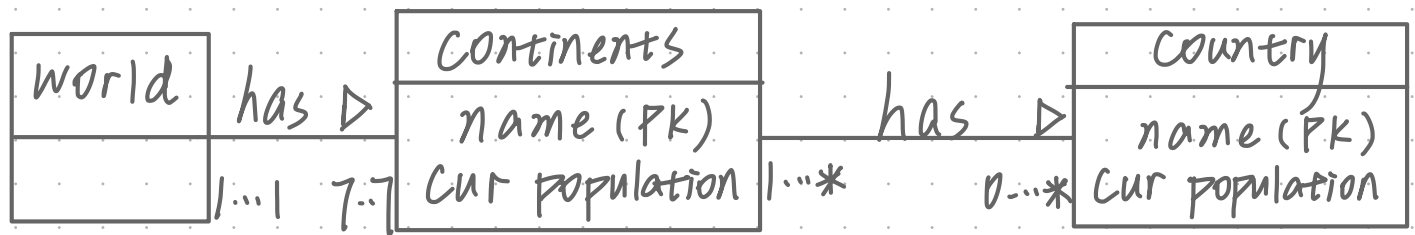
5. A laptop has a unique serial number and is associated with a specific manufacturer and a model for that manufacturer. Each laptop is associated with exactly 1 manufacturer and 1 model for that manufacturer. A manufacturer has a unique name. A manufacturer can produce 1 to many laptop models. A model does not have a unique name but is associated with at least 1 manufacturer. An electronic store has a unique name and a unique address that consists of a street number, street address, town, state and zip code. An electronic store stocks 1 to many laptops but a laptop can only be found at 1 and only 1 store.



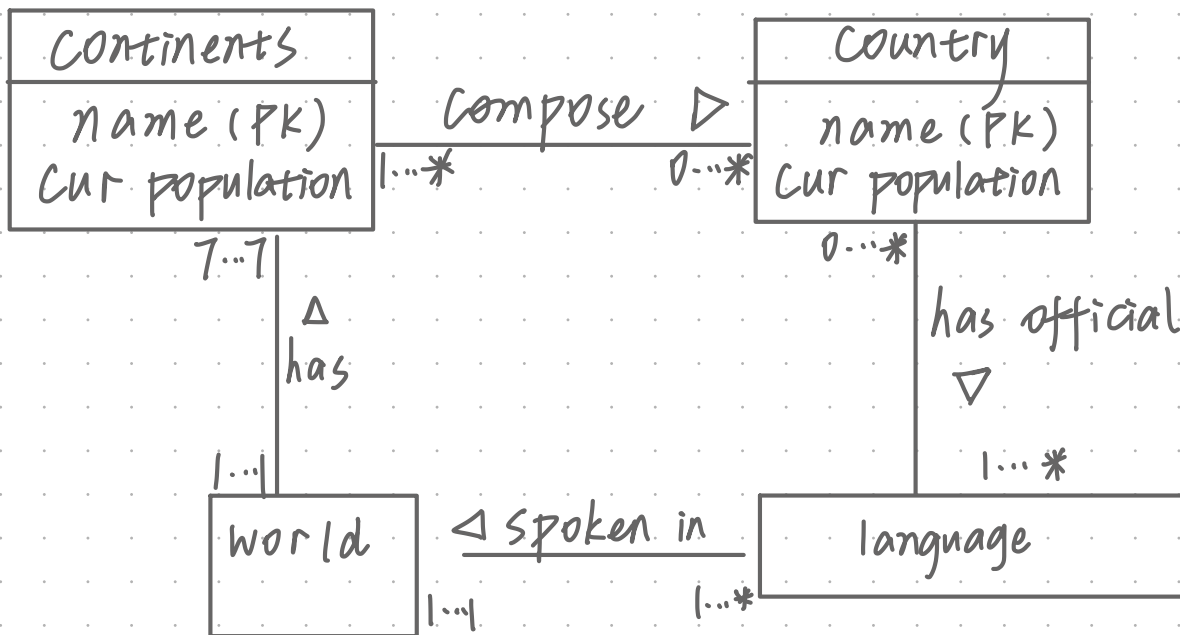
6. A laptop has a unique serial number and is associated with a specific manufacturer and a model for that manufacturer. Each laptop is associated with exactly 1 manufacturer and 1 model for that manufacturer. A manufacturer has a unique name. A manufacturer can produce 1 to many laptop models. A model does not have a unique name but is associated with at least 1 manufacturer. An electronic store has a unique name and a unique address that consists of a street number, street address, town, state and zip code. An electronic store stocks 1 to many laptops but a laptop can only be found at 1 and only 1 store. A customer consists of a name, and a unique credit card number. A customer buys a laptop at a store. A laptop can be bought by at most one customer but a customer may buy 0 to many laptops.



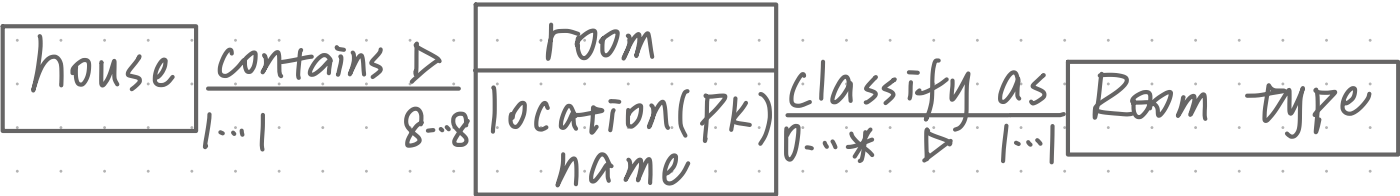
7. The world is composed of 7 continents. A continent has a unique name and a current population. The names of the continents are: Africa, Antarctica, Asia, Europe, Australia/Oceania, North America and South America. A country has a unique name, and a current population. Each continent is composed of 0 to many countries. A country may be situated on 1 to many continents.



8. The world is composed of 7 continents. A continent has a unique name and a current population. A country has a unique name, and a current population. There are also languages that are spoken in the world. Each continent is composed of 0 to many countries. A country may be situated on 1 to many continents. A country has 1 to many official languages. A language may be an official language for 0 to many countries.



9. Each house in a development contains 8 rooms. Each room contains a location (within the house) and a name. The location of the room uniquely identifies the room within the house. A room may be classified as a bedroom, a bathroom or a common room. A room can be classified as only 1 type of room. A specific room type can be associated with many different rooms in the house.



10. Each house in a development contains 8 rooms. Each room contains a location (within the house) and a name. The location of the room uniquely identifies the room within the house. A room may be classified as a bedroom, a bathroom or a common room. A room can be classified as only 1 type of room. A specific room type can be associated with many different rooms in a house. Each room has a collection of furniture. Each furniture piece has a color and a location (in the room). The furniture types are: sofa, chair, bookcase. A furniture can have only 1 furniture type but there may be many instances of a furniture type in a room.

