

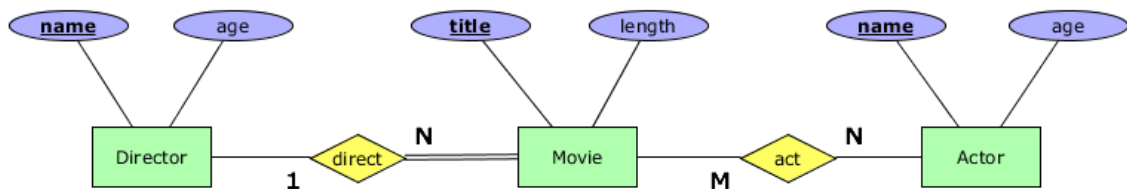
# HW1

姓名：張名翔

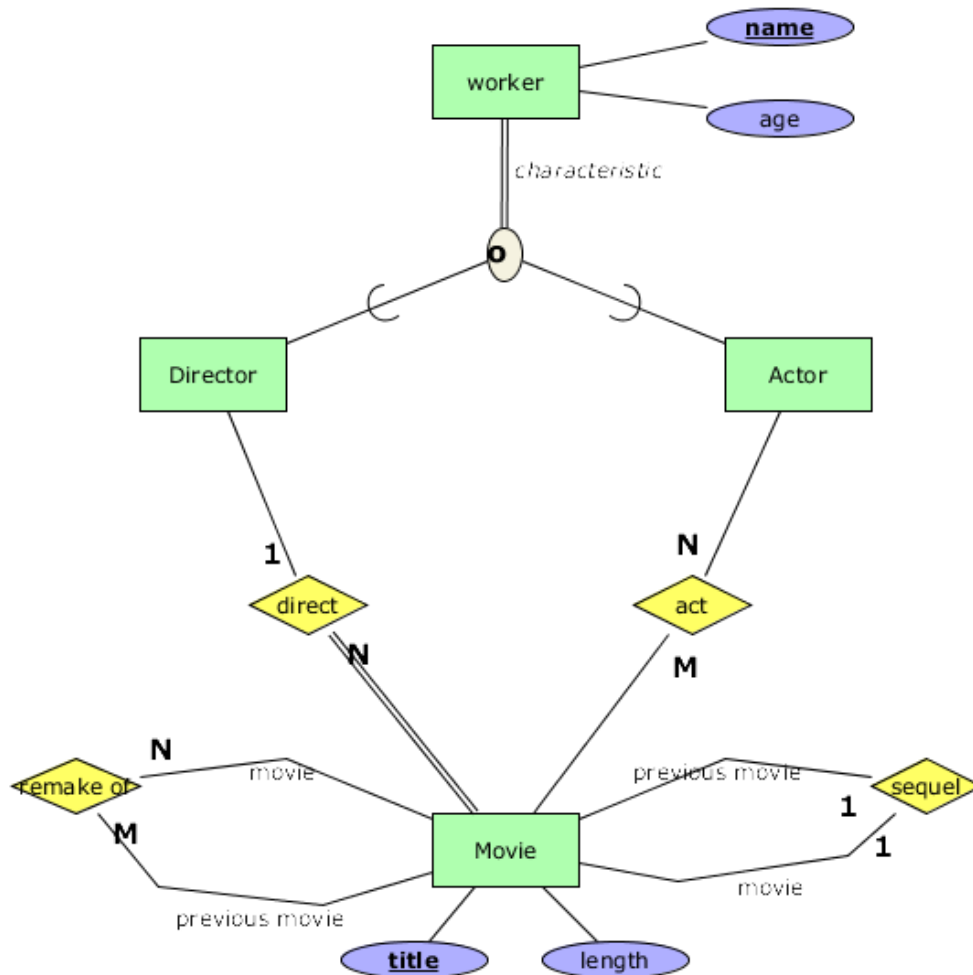
學號：r10631026

ER Diagram Software：TerraER

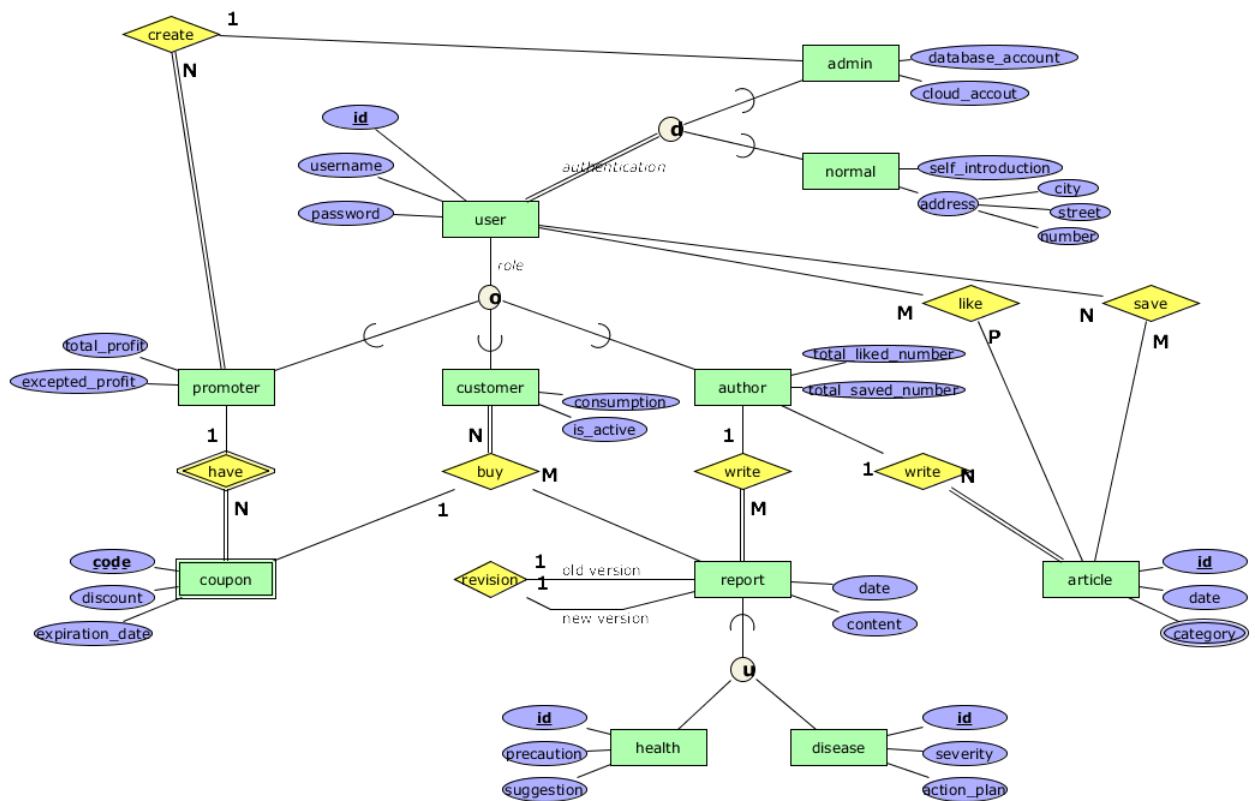
A.



B.



C.



Database name: Healthy

The database is builded to manage an APP with some report and article created by expert.

- Entity and Attribute

- The user has id, username and password. The id is key attribute.
- The promoter has id, username, password, total profit and excepted profit. The id is key attribute.
- The customer has id, username, password, consumption and whether it is active. The id is key attribute.
- The author has id, username, password, total liked number, total saved number. The id is key attribute.
- The cupon has code, discount, expiration date. The code is partial key attribute.
- The report has id and date, content. The id is key attribute.
- The article has id, date and category. The category might have multiple value. The id is key attribute.

- The admin has id, username, password, database account and cloud account. The id is key attribute.
- The normal has id, username, password, self introduction and address which including city, street and number. The id is key attribute.
- The health has id, precaution and suggestion. The id is key attribute.
- The disease has id, severity and action plan. The id is key attribute.
- Relationship
  - The user could like and save multiple articles.
  - The article could be liked and saved by multiple users.
  - The author could write multiple articles and multiple reports.
  - The article and report can be written by an author.
  - The report might be the revision of a previous report. (Recursive)
  - The customer can buy multiple reports and able to use a coupon to have a discount.
  - The report can be bought by mutiple customer.
  - The promoter might have multiple coupon.
  - The coupon belong to single promoter.
  - The admin can create multiple promoters.
  - The promoter is created by an admin.
- Specialization
  - The user could either have three type of roles, which are promoter, customer and author.
  - The user have one of the authentications, which are admin or normal.
- Union
  - The report is the union of health and report.
- Constraints
  - The coupon can only been identified by which promoter have it and its code. (weakly entity)
  - The customer must buy report.
  - The report and article must been written by author.
  - The user must have the authentication.
  - The promoter must created by an admin.