資料庫 HWK2

第一題

ER model  Entity-relationship model

ER model 在概念結構設計階段用來描述資訊需求和或要儲存在資料庫中的資訊的類型。

weak entity

一種附加性質，通常他會附著在強實體上，強實體出現他就會跟著出現。

degree of a relationship type

The degree of a relationship type is the number of participating entity types.

 identifying relationship

子表的每一列資料需要依賴母表的資料才能存在

key attribute

收尋關鍵鑰匙

第二題

第五題

1. Who is Edgar Frank Codd?

發明ER圖的人

1. Write the title, publisher, pages, and date of his famous paper?  
   title : A Relational Model of Data for Large Shared Data Banks  
   publisher: P. BAXENDALE, Editor  
   date:1970
2. What is his contribution? When did he receive ACM Turing Award?  
   發明Relational model
3. Who is Joseph McCarthy? Why did Codd move to Ottawa in 1953?  
   美國參議員  
   被參議員激怒
4. Why did he leave IBM? Who was the major partner in his consulting company?  
   第一次 因為參議員搬去加拿大離開 第二次就推修囉!!  
   Larry Ellison

第六題

(2 points) What is a relation?  
就是如果在公司底下員工跟老闆。就是實體與實體之籤的關係。

(3 points) List meanings for NULL values.  
空值

(2 points) What is an assertion of a relation?

Express some of these semantic constraints.

(2 points) What is a predicate of a relation?

用於描述該物件的東西

第七題

(3 points) What is a constraint in the relational model?

他們必須是互相通聯

(8 points) Explain the domain, key, entity integrity, and referential integrity constraints in the relational model.

Domain

每筆資料需在定義值區段內

Key

確保每筆資料表都是獨一無二

entity integrity

主件不能是NULL，引為缺乏他就無法收尋。

referential integrity

參考其他資料表時必需要有資料

(10 points) An student relation has 4 attributes: student\_id, name, email, and department. No two students have the same student\_id and email.

(2 points) What is the difference between a superkey and a key?  
 由關聯綱目的數個屬性所組成，而且沒有任何兩筆序列值的這些屬性值完全相同

(6 points) List the superkey, key, candidate key, and primary key for the student relation  
 superkey >> student\_id, email, { student\_id, email }, { student\_id, name }

{ student\_id, department }, { student\_id, email, department },

{ student\_id, email, name }, { student\_id, email. name}, { student\_id, email, department , name},{email, name}, {email, department}, { email,department, name}

Key >> student\_id

candidate key >> email, student\_id

primary key >> student\_id

(2 points) Explain the reason of choosing the primary key.

他獨一無二。