

# DataBase개론 Team Project3 (Team No:       )

(Email 제출 DeadLine 4월 13일 목요일 정오)

1번 5점

List four significant differences between a file-processing system and a DBMS.

What are five main functions of a database administrator?

Explain the distinctions among the terms primary key, candidate key, and superkey

*person* (*driver\_id*, *name*, *address*)  
*car* (*license*, *model*, *year*)  
*accident* (*report\_number*, *date*, *location*)  
*owns* (*driver\_id*, *license*)  
*participated* (*driver\_id*, *car*, *report\_number*, *damage\_amount*)

**Figure 3.11. Insurance database.**

Consider the insurance database of Figure 3.11, where the primary keys are underlined. Construct the following SQL queries for this relational database.

- Find the number of accidents in which the cars belonging to “John Smith” were involved.
- Update the damage amount for the car with license number “AABB2000” in the accident with report number “AR2197” to \$3000.

*employee* (*employee\_name*, *street*, *city*)  
*works* (*employee\_name*, *company\_name*, *salary*)  
*company* (*company\_name*, *city*)  
*manages* (*employee\_name*, *manager\_name*)

**Figure 3.12.** Employee database.

Consider the relational database of Figure 3.12. Give an expression in SQL for each of the following queries.

- Give all employees of First Bank Corporation a 10 percent raise.
- Give all managers of First Bank Corporation a 10 percent raise.
- Delete all tuples in the *works* relation for employees of Small Bank Corporation

*employee* (*employee\_name*, *street*, *city*)  
*works* (*employee\_name*, *company\_name*, *salary*)  
*company* (*company\_name*, *city*)  
*manages* (*employee\_name*, *manager\_name*)

**Figure 3.12.** Employee database.

Give an SQL schema definition for the employee database of Figure 3.12. Choose an appropriate domain for each attribute and an appropriate primary key for each relation schema