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DBMS Hw\_2

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Ex 1.) Exercise 2.12 on pg. 62

1. Appropriate Primary Keys: (tablename 🡪 primary\_key)

branch 🡪 branch\_name

customer 🡪 ID, customer\_name

loan 🡪 loan\_number

borrower 🡪 ID

account 🡪 account\_number, branch\_name

depositor 🡪 ID

1. Appropriate Foreign Keys:

loan\_number in borrower to loan\_number in loan

account\_number in depositor to account\_number in account

ID in borrower and depositor to ID in customer

account\_number in depositor to account\_number in account

Ex 2.) Exercise 2.14 on pg. 62 (relational algebra)

1. π­(person\_name) (σ(company\_name = “BigBank”) **works**)
2. π(person\_name, city) (**employee** lXl(company\_name = “BigBank”) **works**)
3. π(person\_name, street address, city) (**employee** lXl(company\_name = “BigBank” ^ salary > 10000) **works**)
4. π­(person\_name) (**employee** lXl(employee.city = company.city) **company**)

Ex 3.) Exercise 2.15 on pg. 62 (relational algebra)

1. π­(loan\_number) (σ(amount > 10000) **loan**)
2. π­(ID) (**depositor** lXl(account.balance > 6000) **account**)
3. π­(ID) (**depositor** lXl(account.balance > 6000 ^ account.branch\_name = “Uptown”) **account**)