Prüfungsvorbereitung

# Datenbank

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| **CREATE** **TABLE** Employee(  E\_ID **INT** **NOT** **NULL**,  FIRSTNAME **CHAR**(30) **NOT** **NULL**,  LASTNAME **CHAR**(30) **NOT** **NULL**  );    **ALTER** **TABLE** Employee **ADD** **CONSTRAINT** EMPLOYEE\_PK **PRIMARY** **KEY**(E\_ID);    **CREATE** **TABLE** Customer(  C\_ID **INT** **NOT** **NULL**,  FIRSTNAME **CHAR**(30) **NOT** **NULL**,  LASTNAME **CHAR**(30) **NOT** **NULL**  );    **ALTER** **TABLE** Customer **ADD** **CONSTRAINT** CUSTOMER\_PK **PRIMARY** **KEY**(C\_ID);    **CREATE** **TABLE** House(  H\_ID **INT** **NOT** **NULL**,  NAME **CHAR**(30) **NOT** **NULL**  );    **ALTER** **TABLE** House **ADD** **CONSTRAINT** HOUSE\_PK **PRIMARY** **KEY**(H\_ID);  **ALTER** **TABLE** House **ADD** **CONSTRAINT** HOUSE\_UNIQUE\_NAME **UNIQUE**(NAME);    **CREATE** **TABLE** Contract(  C\_ID **INT** **NOT** **NULL**,  H\_ID **INT** **NOT** **NULL**,  E\_ID **INT** **NOT** **NULL**,  CONTRACT\_DATE **DATE** **NOT** **NULL**,  **TYPE** **VARCHAR**(10) **CHECK**(**TYPE** **IN** ('Miete','Kauf')) **NOT** **NULL**,  DESCRIPTION **CHAR**(100)  );    **ALTER** **TABLE** Contract **ADD** **CONSTRAINT** CONTRACT\_PK **PRIMARY** **KEY**(C\_ID, H\_ID);  **ALTER** **TABLE** Contract **ADD** **CONSTRAINT** CONTRACT\_FK\_C\_ID **FOREIGN** **KEY** (C\_ID) **REFERENCES** Customer(C\_ID);  **ALTER** **TABLE** Contract **ADD** **CONSTRAINT** CONTRACT\_FK\_H\_ID **FOREIGN** **KEY** (H\_ID) **REFERENCES** House(H\_ID);  **ALTER** **TABLE** Contract **ADD** **CONSTRAINT** CONTRACT\_FK\_E\_ID **FOREIGN** **KEY** (E\_ID) **REFERENCES** Employee(E\_ID); |

# Queries

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| **INSERT** **INTO** Employee(E\_ID, FIRSTNAME, LASTNAME) **VALUES** (1, 'Simon', 'Wächter');    **INSERT** **INTO** Customer(C\_ID, FIRSTNAME, LASTNAME) **VALUES** (1, 'Silvia', 'Wächter');  **INSERT** **INTO** Customer(C\_ID, FIRSTNAME, LASTNAME) **VALUES** (2, 'Rolf', 'Wächter');    **INSERT** **INTO** House(H\_ID, NAME) **VALUES** (1, 'Bahnhofstrasse Eiken');    **INSERT** **INTO** Contract(C\_ID, H\_ID, E\_ID, CONTRACT\_DATE, DESCRIPTION, **TYPE**) **VALUES**(1, 1, 1, **CURRENT\_DATE** , 'Viele Fragen', 'Miete');  **INSERT** **INTO** Contract(C\_ID, H\_ID, E\_ID, CONTRACT\_DATE, DESCRIPTION, **TYPE**) **VALUES**(2, 1, 1, **CURRENT\_DATE**, 'Ging rasch', 'Kauf');    **SELECT** Customer.C\_ID **AS** ID, Customer.FIRSTNAME, Customer.LASTNAME, House.NAME, Contract.CONTRACT\_DATE, Contract.TYPE **FROM** Customer  **LEFT** **JOIN** Contract **ON** Customer.C\_ID = Contract.C\_ID  **LEFT** **JOIN** House **ON** Contract.H\_ID = House.H\_ID; |

# Relationsalgebra

# Notizen