数据库技术 作业3

***Steven***

**3. 有两个关系S(A, B, C, D)和T(C, D, E, F)，写出与下列查询等价的SQL表达式：**

**(1) ;**

SELECT \* FROM S WHERE A=10;

**(2) ;**

SELECT DINSTINCT A, B FROM S;

**(3) ;**

SELECT S.\*, T.E, T.F FROM S, T WHERE S.C = T.C AND S.D = T.D;

**(4) ;**

SELECT S.\*, T.D, T.E, T.F FROM S,T WHERE S.C = T.C;

**(5) ;**

SELECT A,B, S.C, S.D, T.C, T.D, E, F FROM S, T WHERE A < E;

**(6) ;**

SELECT S\_new.C, S\_new.D, T.C, T.D, E, F FROM T,(SELECT DINSTINCT C, D FROM S) AS S\_new;

**4.**

**建表：**

|  |
| --- |
| CREATE TABLE S(      SNO CHAR(2) NOT NULL COMMENT '供应商代码' PRIMARY KEY,      SNAME VARCHAR(5) NOT NULL COMMENT '供应商姓名',      STATUS SMALLINT NOT NULL COMMENT '供应商状态',      CITY VARCHAR(5) NOT NULL COMMENT '供应商所在城市'  ); |
| CREATE TABLE P(      PNO CHAR(2) NOT NULL COMMENT '零件代码' PRIMARY KEY,      PNAME VARCHAR(5) NOT NULL COMMENT '零件名',      COLOR CHAR NOT NULL COMMENT '颜色',      WEIGHT SMALLINT NOT NULL COMMENT '重量'  ); |
| CREATE TABLE J(      JNO CHAR(2) NOT NULL COMMENT '工程项目代码' PRIMARY KEY,      JNAME VARCHAR(5) NOT NULL COMMENT '工程项目名',      CITY VARCHAR(5) NOT NULL COMMENT '工程项目所在城市'  ); |
| CREATE TABLE SPJ(      SNO CHAR(2) NOT NULL COMMENT '供应商代码' NOT NULL,      PNO CHAR(2) NOT NULL COMMENT '零件代码' NOT NULL,      JNO CHAR(2) NOT NULL COMMENT '工程项目代码' NOT NULL,      QTY SMALLINT NOT NULL COMMENT '供应数量' NOT NULL,      PRIMARY KEY(SNO, PNO, JNO),      FOREIGN KEY(SNO) REFERENCES S(SNO),      FOREIGN KEY(PNO) REFERENCES P(PNO),      FOREIGN KEY(JNO) REFERENCES J(JNO)  ); |

**查询语句：**

|  |
| --- |
| SELECT SNO FROM SPJ WHERE JNO='J1'; |
| SELECT SNO FROM SPJ WHERE JNO='J1' AND PNO='P1'; |
| SELECT SNO  FROM SPJ  WHERE JNO = 'J1' AND PNO IN(          SELECT PNO          FROM P          WHERE COLOR = '红'      ); |
| SELECT JNO  FROM SPJ  WHERE NOT EXISTS(          SELECT \*          FROM SPJ, P, J          WHERE              SPJ.PNO = P.PNO              AND SPJ.JNO = J.JNO              AND P.COLOR = '红'              AND J.CITY = '天津'      ); |

**5.**

**SQL语句依次如下：**

|  |
| --- |
| SELECT SNAME,CITY FROM S; |
| SELECT PNAME,COLOR,WEIGHT FROM P; |
| SELECT JNO FROM SPJ WHERE SNO='S1'; |
| SELECT PNAME, QTY FROM P, SPJ WHERE P.PNO=SPJ.PNO AND SPJ.JNO='J2'; |
| SELECT PNO FROM SPJ WHERE SNO IN(SELECT SNO FRON S WHERE CITY='上海'); |
| SELECT JNAME  FROM J, SPJ, S  WHERE      J.JNO = SPJ.JNO      AND S.SNO = SPJ.SNO      AND S.CITY = '上海'; |
| SELECT JNO  FROM SPJ  WHERE NOT EXISTS(          SELECT \*          FROM SPJ, S, J          WHERE              SPJ.JNO = J.JNO              AND SPJ.SNO = S.SNO              AND S.CITY = '天津'      ); |
| UPDATE P SET COLOR = '蓝色' WHERE COLOR = '红色'; |
| UPDATE SPJ SET SNO='S3' WHERE SNO='S5' AND PNO='P6' AND JNO='J4'; |
| DELETE FROM SPJ WHERE SNO='S2'; |
| DELETE FROM S WHERE SNO='S2'; |
| INSERT INTO SPJ(SNO,JNO,PNO,QTY) VALUES('S2','J6','P4',200); |

**9.**

**建立视图：**

|  |
| --- |
| CREATE VIEW SPJ\_VIEW AS      SELECT SNO, PNO, QTY      FROM SPJ      WHERE JNO = (              SELECT JNO              FROM J              WHERE JNAME = '三建'          ); |

**(1)**

|  |
| --- |
| SELECT PNO, QTY FROM SPJ\_VIEW; |

**(2)**

|  |
| --- |
| SELECT PNO QTY FROM SPJ WHERE SNO = 'S1'; |