```sql
/* Creamos la BD Hangar */
CREATE DATABASE HANGAR
/* Abrimos la BD */
USE HANGAR
/* Dada las siguientes tablas : */
CREATE TABLE Repuestos(CodRep NUMERIC(6) identity(1,1) not null,
                       DscRep VARCHAR(30) not null,
                       TipoRep CHARACTER(1),
                       StkRep NUMERIC(8))


CREATE TABLE Aeronaves(CodAero CHARACTER(6) not null,
                       MarcaAero VARCHAR(20) not null,
                       ModeloAero VARCHAR(20) not null,
                       AnioAero NUMERIC(4) not null,
                       StsAero CHARACTER(1))



CREATE TABLE Series(NumSerie CHARACTER(10) not null,
                    CodRep NUMERIC(6),
                    CodAero CHARACTER(6),
                    FchInstalac DATE,
                    StsSerie CHARACTER(1))

/* Crear las restricciones de integridad y las reglas del negocio */

/* Repuestos */
ALTER TABLE Repuestos ADD CONSTRAINT PK_Repuestos PRIMARY KEY(CodRep)
ALTER TABLE Repuestos ADD CONSTRAINT CK_TipoRep CHECK(TipoRep IN('X','Y','Z'))
/* Agrandar el campo DscRep y llevarlo a 40 caracteres */
ALTER TABLE Repuestos ALTER COLUMN DscRep VARCHAR(40) not null

/* Aeronaves */
ALTER TABLE Aeronaves ADD CONSTRAINT PK_Aeronave PRIMARY KEY(codAero)
ALTER TABLE Aeronaves ADD CONSTRAINT CK_AnioAero CHECK(AnioAero > 2000)
ALTER TABLE Aeronaves ADD CONSTRAINT CK_StsAero CHECK(StsAero IN('V','R','T'))
/* Agregar el campo CanalAero y que sea unico */
ALTER TABLE Aeronaves ADD CanalAero CHARACTER(6)
ALTER TABLE Aeronaves ADD CONSTRAINT UK_CanalAero UNIQUE(CanalAero)

/* Series */
ALTER TABLE Series ADD CONSTRAINT PK_Series PRIMARY KEY(NumSerie)
ALTER TABLE Series ADD CONSTRAINT FK_RepSerie FOREIGN KEY(CodRep) REFERENCES
Repuestos(CodRep)
ALTER TABLE Series ADD CONSTRAINT FK_AeroSerie FOREIGN KEY(CodAero) REFERENCES
Aeronaves(CodAero)
ALTER TABLE Series ADD CONSTRAINT CK_StsSerie CHECK(StsSerie IN('D','S'))


/* Creamos los indices del modelo */
CREATE INDEX IDX_CanalAero ON Aeronaves(CanalAero)
CREATE INDEX IDX_SerieRepuesto ON Series(CodRep)
CREATE INDEX IDX_SerieAeronave ON Series(CodAero)

/* Consultas SQL */

/* 1 */

SELECT R.CodRep,R.DscRep,(SELECT COUNT(DISTINCT(S.CodAero))
                          FROM Series S
                          WHERE S.CodRep=R.CodRep) as Cantidad
FROM Repuestos R

/* 2 */
SELECT A.*
FROM Aeronaves A ,Series S
WHERE A.CodAero = S.CodAero and
      S.FchInstalac = (SELECT MIN(FchInstalac)
                       FROM Series)
```

```sql
72
73
74
75     /* 3 */
76     SELECT R.CodRep,R.DscRep,A.CodAero,A.MarcaAero
77     FROM Repuestos R,Aeronaves A,Series S
78     WHERE R.CodRep=S.CodRep and
79           S.CodAero=A.CodAero and
80           YEAR(S.FchInstalac)=2018
81     GROUP BY R.CodRep,R.DscRep,A.CodAero,A.MarcaAero
82     HAVING COUNT(S.NumSerie) < 5
83
84
85     /* 4 */
86     UPDATE Repuestos
87     SET StkRep = StkRep - (SELECT count(Series.numSerie)
88                            FROM Series
89                            WHERE Series.CodRep=Repuestos.CodRep)
90     WHERE StkRep > 100
91
92
93     /* 5 */
94
95     SELECT R.CodRep,R.DscRep
96     FROM Repuestos R, Series S
97     WHERE R.CodRep=S.CodRep
98     GROUP BY R.CodRep,R.DscRep
99     HAVING COUNT(DISTINCT(S.CodAero)) = (SELECT count(codAero)
100                                          FROM Aeronaves)
101
102
103
104
105
```