

PROJECT
title ID1
budget
start_date

implements
title ID1 FK1
dname ID2 FK2

DEPARTMENT
budget
dname ID1
cname ID2 FK1
country ID2 FK1
ceo ID3 FK2
phone ID3 FK2
address ID3 FK2

COMPANY
cname ID1
country ID1
ceo ID2
phone ID2
address ID2
company-type

system
sname ID1
cname ID2 FK1
country ID2 FK1
ceo ID3 FK2
phone ID3 FK2
address ID3 FK2

medicine
mname ID1
cname ID2 FK1
country ID2 FK1
ceo ID3 FK2
phone ID3 FK2
address ID3 FK2

PROJECT(title, budge, start_date)

PRIMARY KEY = (title)

IMPLEMENTS(title, dtype)

PRIMARY KEY = (title, dtype)

FOREIGN KEY = (title) REFERENCES PROJECT(title)

FOREIGN KEY = (dtype) REFERENCES DEPARTMENT(dtype)

DEPARTMENT(budge, dtype, cname, country, ceo, phone, address)

PRIMARY KEY = (dtype)

FOREIGN KEY = (cname, country) REFERENCES COMPANY(cname, country)

FOREIGN KEY = (ceo, phone, address) REFERENCES COMPANY(ceo, phone, address)

COMPANY(cname, country, ceo, phone, address, company-type)

PRIMARY KEY = (cname, country)

CANDIDATE KEY = (ceo, phone, address)

SYSTEM(sname, cname, country, ceo, phone, address)

PRIMARY KEY = (sname)

FOREIGN KEY = (cname, country) REFERENCES COMPANY(cname, country)

FOREIGN KEY = (ceo, phone, address) REFERENCES COMPANY(ceo, phone, address)

MEDICINE(mname, cname, country, ceo, phone, address)

PRIMARY KEY = (mname)

FOREIGN KEY = (cname, country) REFERENCES COMPANY(cname, country)

FOREIGN KEY = (ceo, phone, address) REFERENCES COMPANY(ceo, phone, address)