

Exam

■ Exercise: University Employee Database (Access)

■ ◆ Objective

Create a complete database in Access to manage university employees: tables, relationships, data entry

1.Database Name :University_Employee_Management ---

2.Required Tables :

TABLE: EMPLOYEE

Field Name :	description
EmployeeID	(PK) Primary key
FirstName	Employee first name
LastName	Employee last name
BirthDate	Date of birth
Hiredate	Employement start date
JobTitle	(professor,administrator,technician...)
Salary	Monthly salary
DepartmentID	foreign key

TABLE: DEPARTMENT

Field Name :	description
DepartmentID	(PK) Primary key
DepartmentName	DepartmentName
Faculty	(Science, Economics, Engineering...)
OfficePhone	Phone of Department

TABLE: COURSE

Field Name :	description
CourseID	(PK) Primary key
Credits	Number of hours
EmployeeID	(FK) foreign key

Relationships Students must create the following relationships:

Department.DepartmentID → Employee.DepartmentID (One-to-Many)

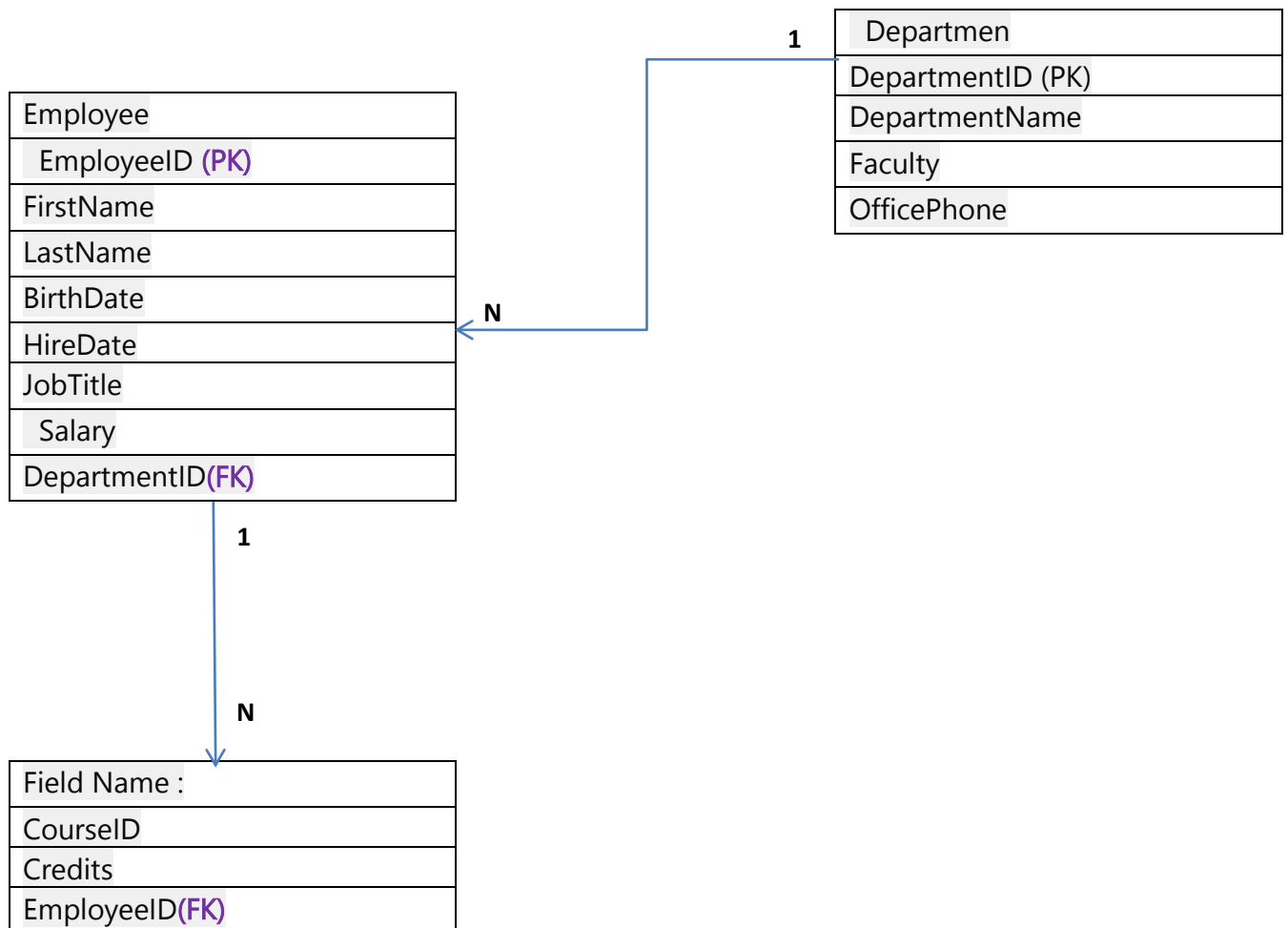
- القسم (DEPARTEMENT) هو جهة تنظيمية واحدة
- الموظفون (EMPLOYEES) يسجلون تحت هذا القسم مثال قسم الاعلام الالي يحتوي 10 موظفين كل موظف ينتمي لقسم واحد فقط .

Employee.EmployeeID → Course.EmployeeID (One-to-Many)

- الاستاذ (الموظف) يمكنه ان يدرس اكثر من مقياس لكن المقياس يتم من طرف استاذ واحد فقط.

✚ With: Enforce Referential Integrity Cascade Update Related Fields ---

Relationships Diagram: **University Employee Database**



Data Entry (Insert these records)

1. Department Table Data

DEPARTEMENTID	DepartmentName	Faculty	OfficePhone
1	Informatics	Faculty of Science	021330110
2	Economics	Economics	021440220
2	Languages	Faculty of Letters	021550330

2. Employee Table Data

EmployeeID	FirstName	LastName	BirthDate	HireDate	JobTitle	Salary	DepartmentID
	Nadia	Belkacem	1985	2010	Professor	150000	1
	Karim	Bensalem	1990	2015	Administrator	90000	2
	Samira	Rahmani	1988	2012	Professor	140000	3
	Yacine	Amari	1993	2020	technician	800000	1
	Lina	cherif	1995	2022	Assistant	70000	2

3. Course Table Data

CoursesID	CourseName	Credits	EmployeeID
1	Database	4	1
2	Sql Basic	3	1
3	French literateur	3	3

المطلوب:

1. أنشئ قاعدة بيانات في Microsoft Access باسم University_Employee_Management
2. ثم قم بما يلي: إنشاء الجداول الثلاثة التالية:
 - ✓ جدول Department
 - ✓ جدول Employee
 - ✓ جدول Course
3. تحديد المفاتيح الأساسية (Primary Keys) لكل جدول. إضافة المفاتيح الأجنبية (Foreign Keys) حسب هيكل العلاقة
4. إنشاء العلاقات التالية: Employee (1) — (∞) Course/ Department (1) — (∞) Employee
5. مع تفعيل Enforce Referential Integrity
6. إدخال ثلاث سجلات على الأقل في كل جدول.

Task:

1. Create a new database in Microsoft Access named: University_Employee_Management
Then perform the following steps:
2. Create the following tables: Department ,Employee ,Course.
3. Set Primary Keys for each table.
4. Add Foreign Keys according to the structure.
5. Create the following relationships: Department (1) — (∞) Employee
Employee (1) — (∞) Course
6. with Enforce Referential Integrity enabled.
7. Insert data of each table.