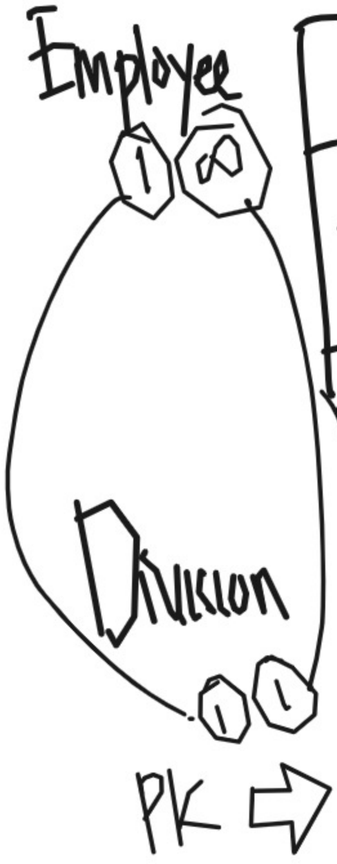
Database

- save data
- manage data
- access data

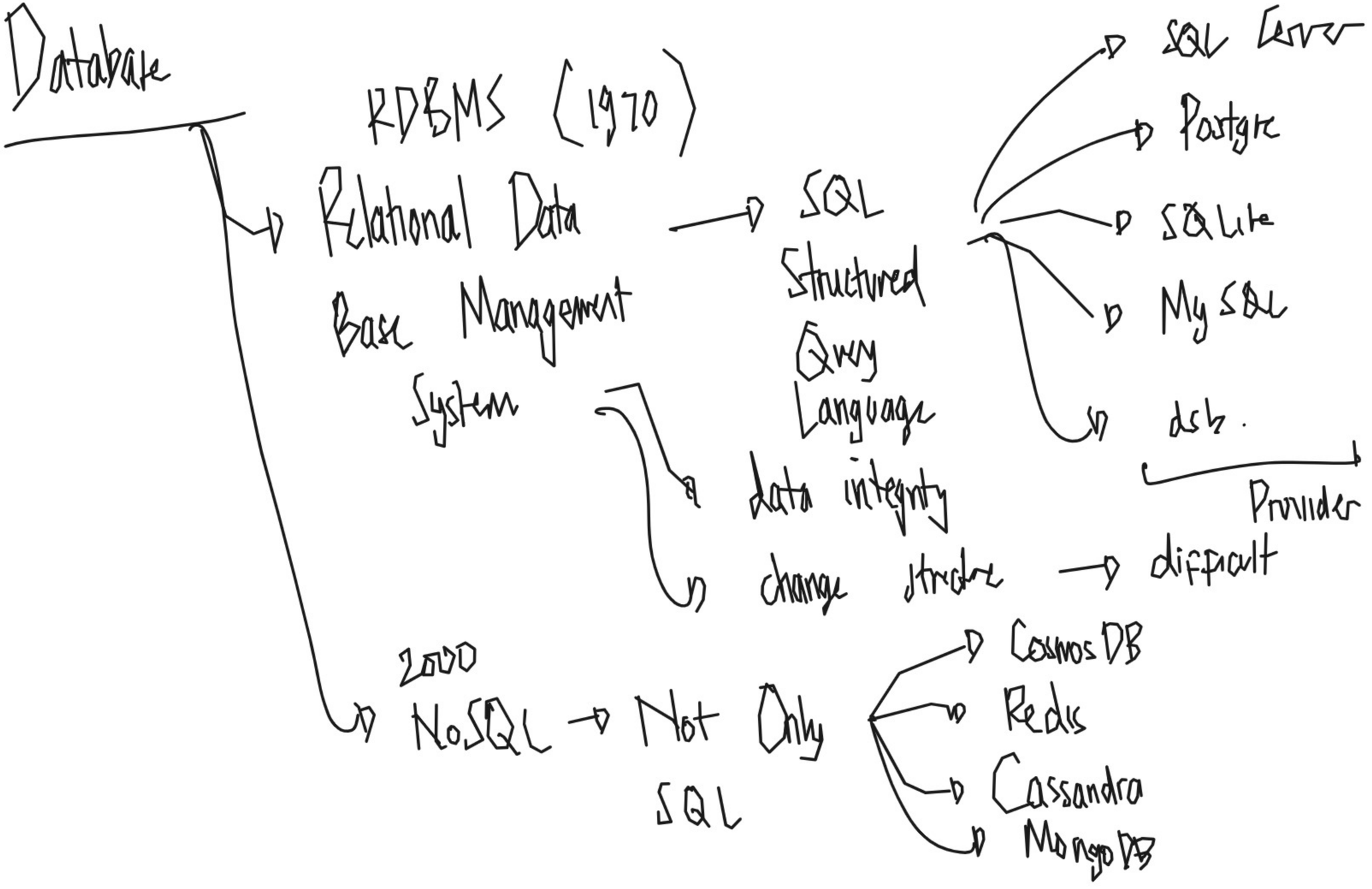


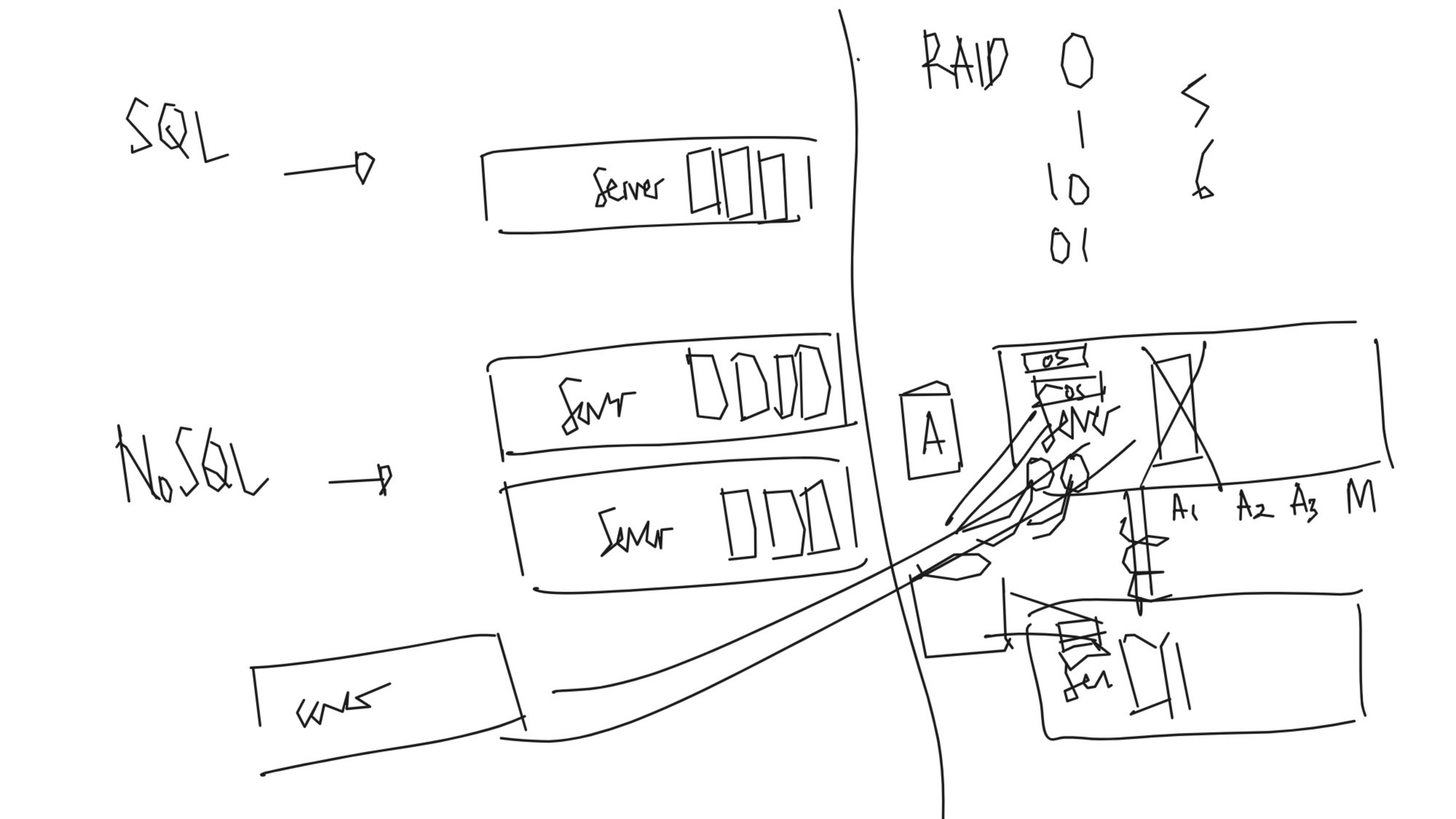
id	Name	Division	Email	Locatn
1	Dion	1 (FF)	dion@	1
2	Gracia	1	gracia@	1
3	Adit	2	edit@	2
4	Kinara	1	kinara@	1

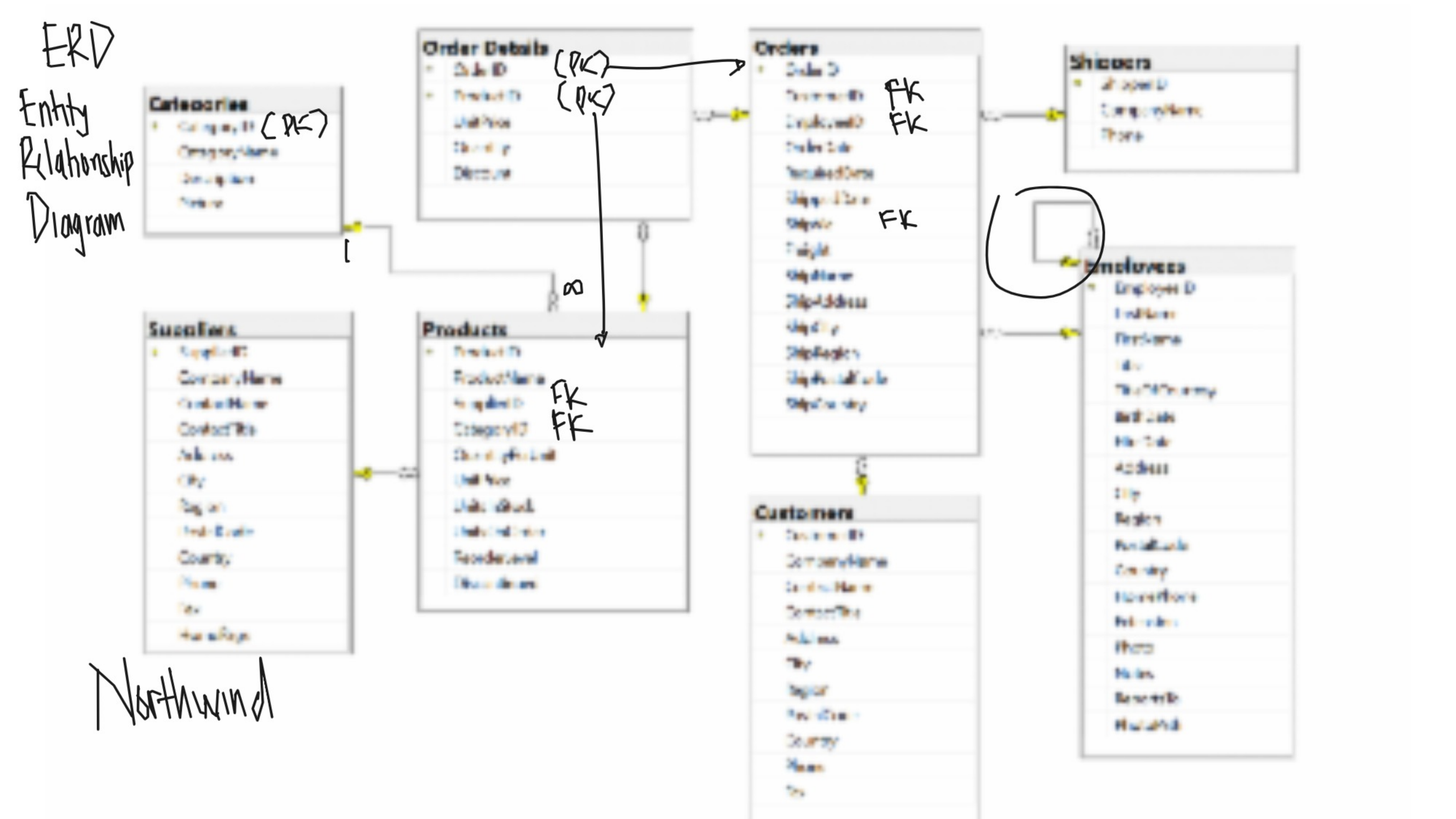
Location

id	name	address
1	SMB	
2	BDG	

id	name	long name	created
1	SE	Software Engineer	2023
2	FE	Firmware Engineer	2023


Database
RDBMS (1970)
Relational Data Base Management System
SQL
Structured Qwry Language
SQL Server
Postgre
SQLite
MySQL
dsh.
Provider
data integrty
change structre
difficult
2000
NoSQL
Not Only SQL
CosmosDB
Redis
Cassandra
MongoDB


SQL
Server
NoSQL
Server
Server
RAID
0
1
10
01
5
6
A
OS
OS
Server
A1
A2
A3
M


ERD
Entity
Relationship
Diagram
Categories
(PK)
Order Details
(PK)
(PK)
Orders
FK
FK
FK
Shippers
Employees
1
∞
Suppliers
Products
FK
FK
Customers
Northwind

CRUD
- Create
- Read / Retrieve
- Update
- Delete

EF → Entity Framework

ORM
Object Relational Mapping

LINQ
Language Integrated Query

ERD → CD

	Name	Data type
1	CategoryId	INTEGER
2	CategoryName	nvarchar (15)
3	Description	"ntext"
4	Picture	"image"

```
class Category
{
    public int CategoryId {get;set;}
    public string CategoryName {get;set;}
    public string Description {get;set;}

}
```

Approach

→ Database First
- M.EF
- M.EF.SqlClient (Provider)

Database → Code

→ Code First
- M.EF.Design

Code → Database

Modelling / Code first

1. Naming Convention
   - ClassNameId → PK
   - OtherClassId → FK
2. Attribute
3. FluentAPI + Seeding

Migration → Migrate

Code → Database

1. dotnet ef → tool dotnet

```
dotnet tool install --global dotnet-ef
```

2. Microsoft.EF.Design → NuGet

Create migration files:

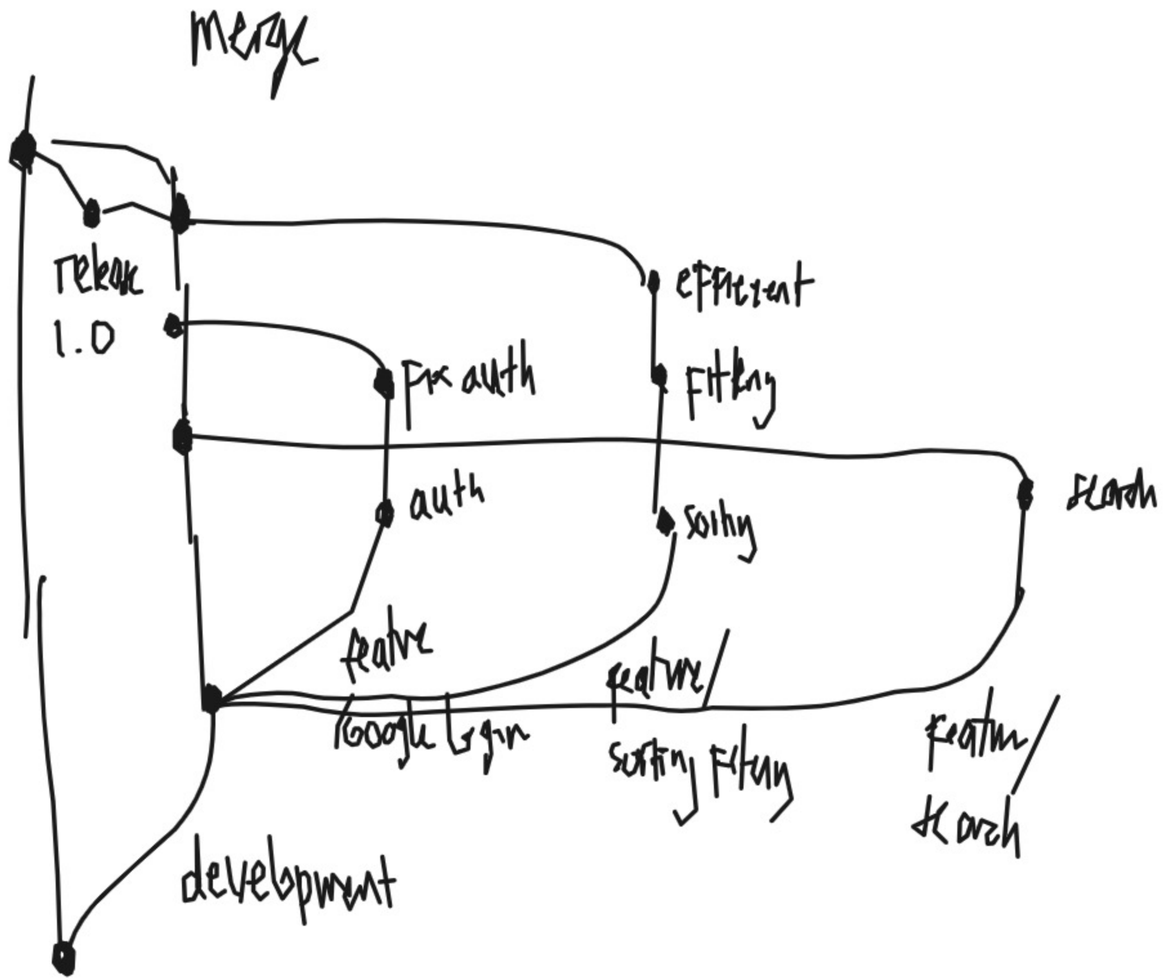
- dotnet ef migrations add "message"

Apply migration :

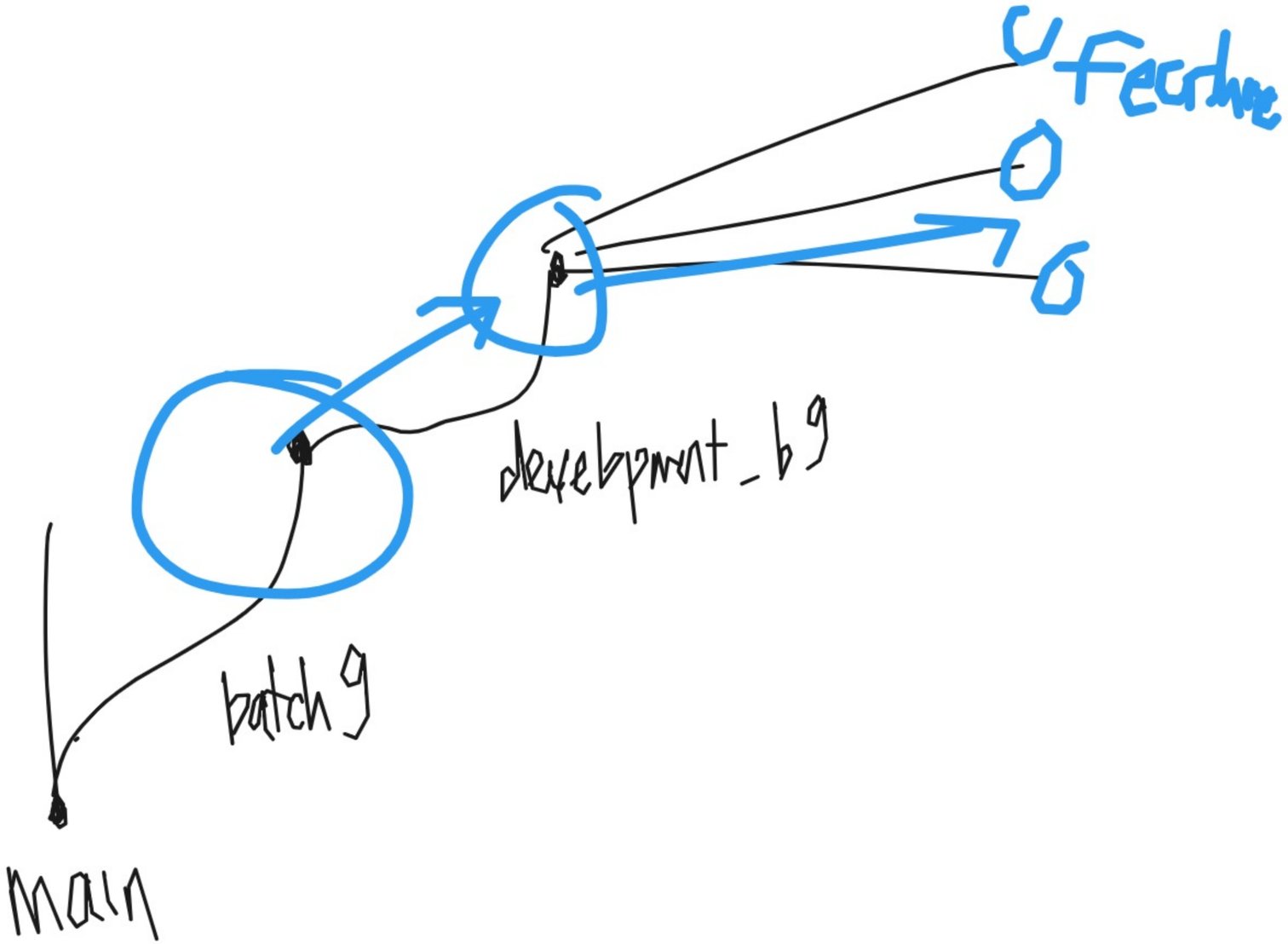
- dotnet ef database update

Git Flow

Branch ?



main
branch


Feature
development_bg
batch 9
main