Database Configuration, Migrations & Models

1)

Why Laravel uses .env

Laravel uses .env because:

- It keeps sensitive data secure
- Prevents hardcoding credentials
- Makes environment changes easy
- Supports different setups (local vs production)

What happens if database name or credentials are incorrect

If credentials are wrong:

- Laravel cannot connect to the database
- Migration fails
- You may see errors like: Access denied/Unknown database /Connection refused

2)

How Laravel knows which migrations to run

Laravel uses a table called: migrations, This table:

- Stores the name of every migration that has already run
- Prevents the same migration from running twice

What happens when you rollback a migration

- Laravel runs the down() method
- Database changes are reversed
- Tables or columns created in up() are removed

3)

migrate: runs new migrations only

rollback: undoes the last batch

refresh: rolls back and re-runs migrations

fresh: deletes all tables and recreates them

Use refresh → reset schema safely

Use fresh → full database reset (most destructive)

4)

Use nullable when:

- Data is optional
- You don't want to force users to enter a value
- Empty values are acceptable

Use unique when:

- Data must be distinct
- Duplicates can cause logical problems
- You want the database to enforce uniqueness

5)

Why $fillable is important

- Defines which fields are allowed to be filled
- Prevents unwanted data from being saved
- Improves application security

What happens if $fillable is not defined

- Laravel blocks mass assignment
- You may get a MassAssignmentException
- Data will not be saved using bulk methods

6)

Why this approach is commonly used

- Saves time
- Keeps model and table creation in sync
- Reduces forgetting to create a migration
- Follows Laravel conventions automatically

When it is better than creating them separately

- You are starting a new feature
- The model and table are created at the same time
- You want a clean and organized workflow

7)

Seeders → insert predefined or default data

Factories → generate fake/test data

Seeders can use factories

Both help in testing and development without manual data entry