Web programming

(Introduction)

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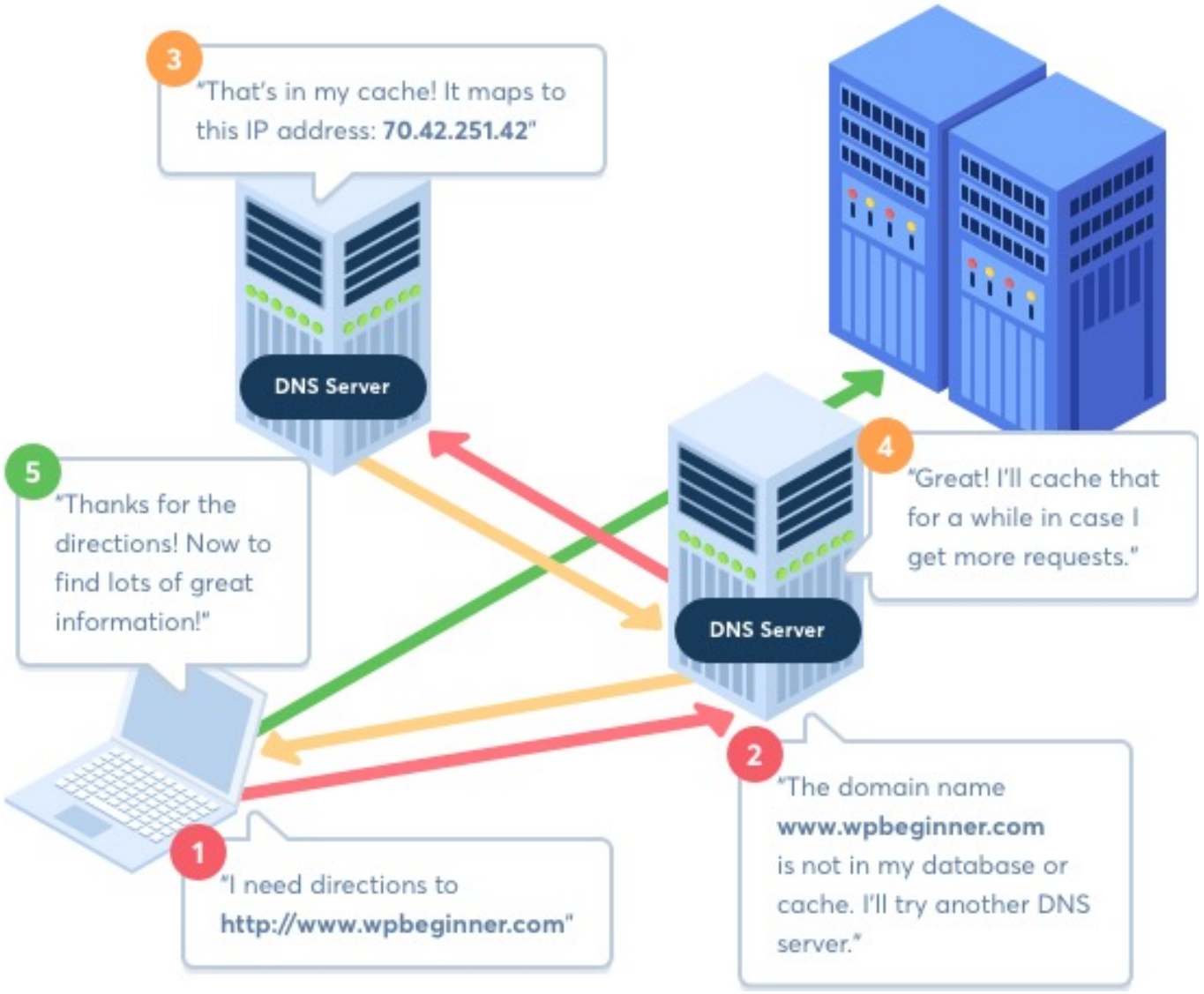
Internet

- What is the Internet?
- Goals
- Web
  - What is the Web?
  - Web1 / Web2/ Web3

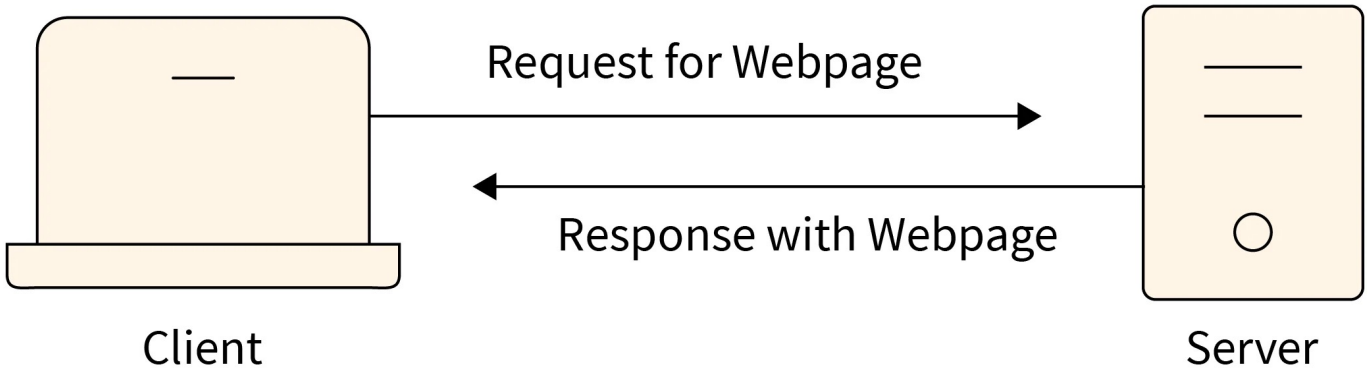
HTTP overview

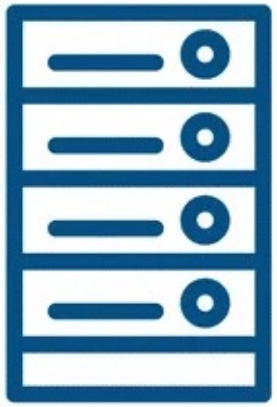
Hypertext Transfer Protocol

How Domain Name Works



Client Server Architecture





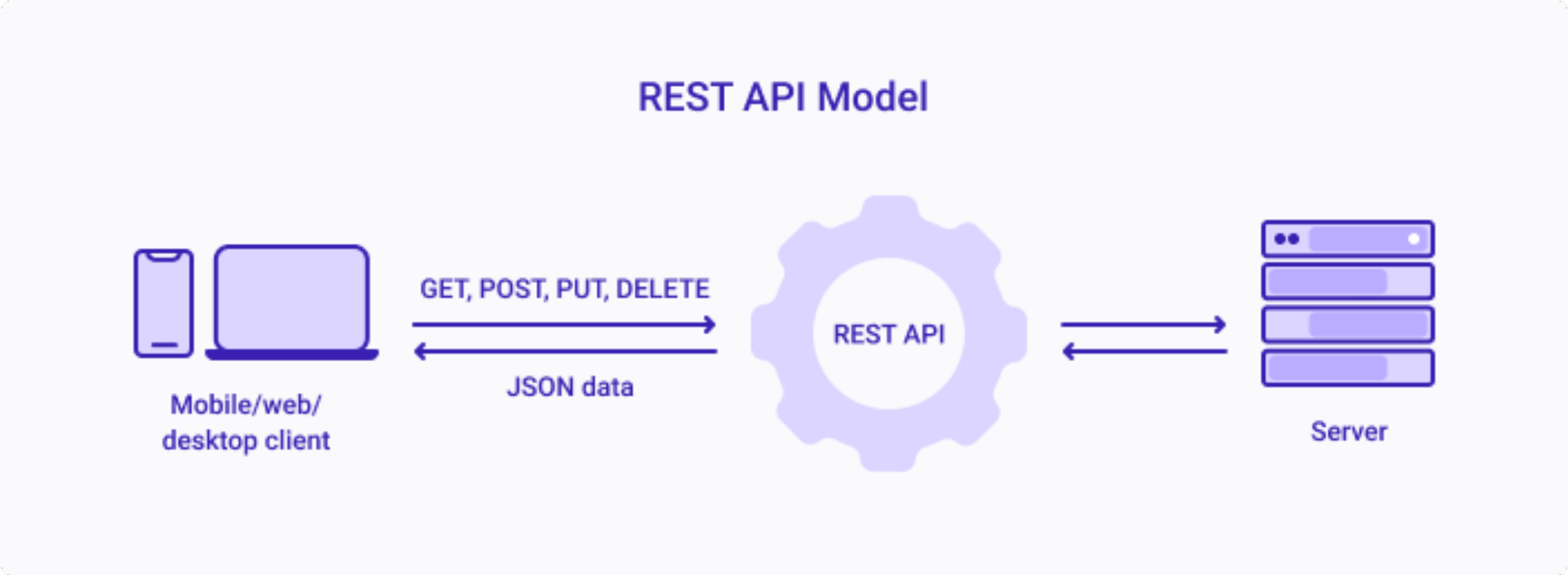
Front End

- Markup and web languages such as HTML, CSS and Javascript
- Asynchronous requests and Ajax
- Specialized web editing software
- Image editing
- Accessibility
- Cross-browser issues
- Search engine optimisation

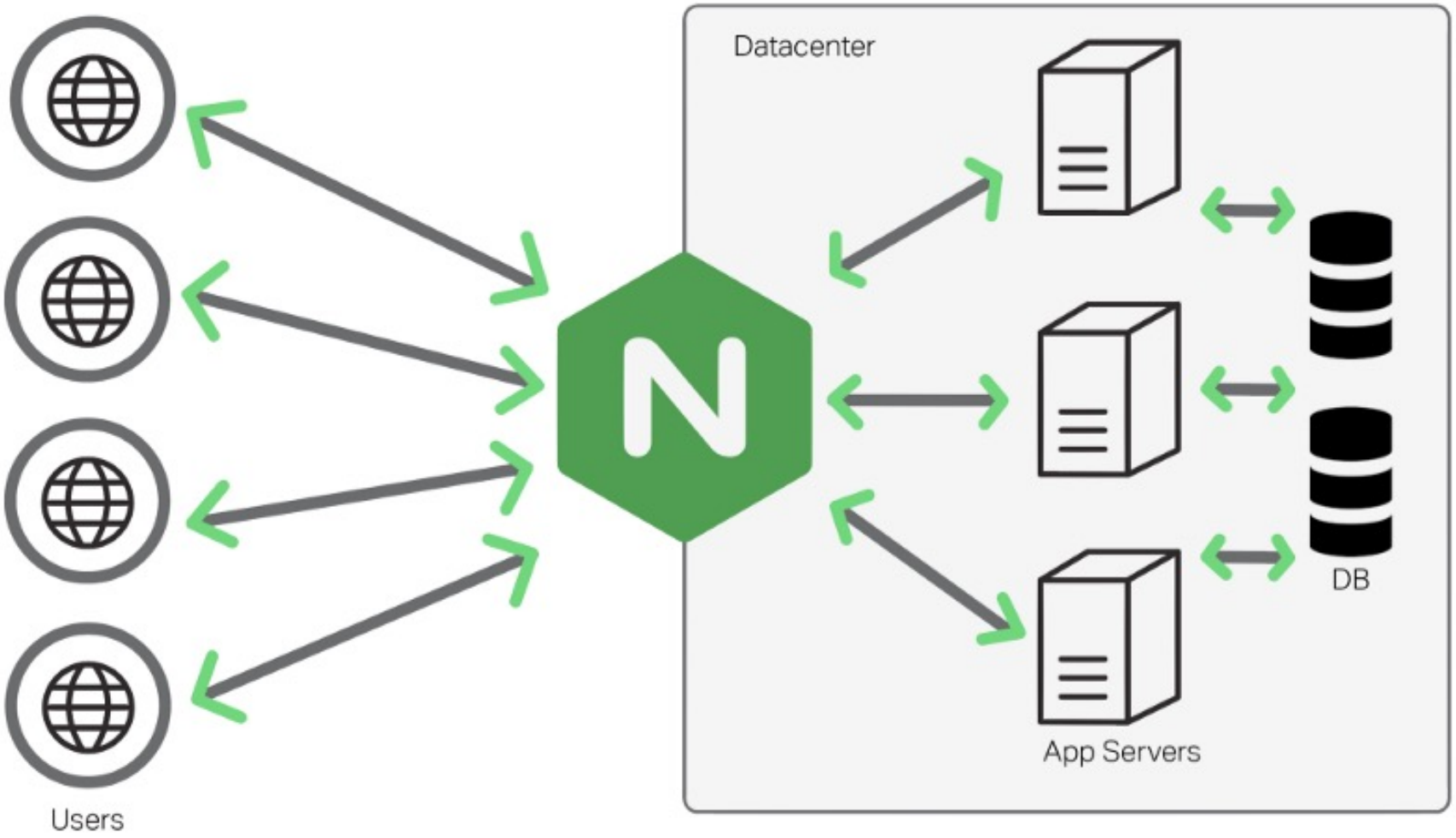
Back End

- Programming and scripting such as Python, Ruby and/or Perl
- Server architecture
- Database administration
- Scalability
- Security
- Data transformation
- Backup

REST API

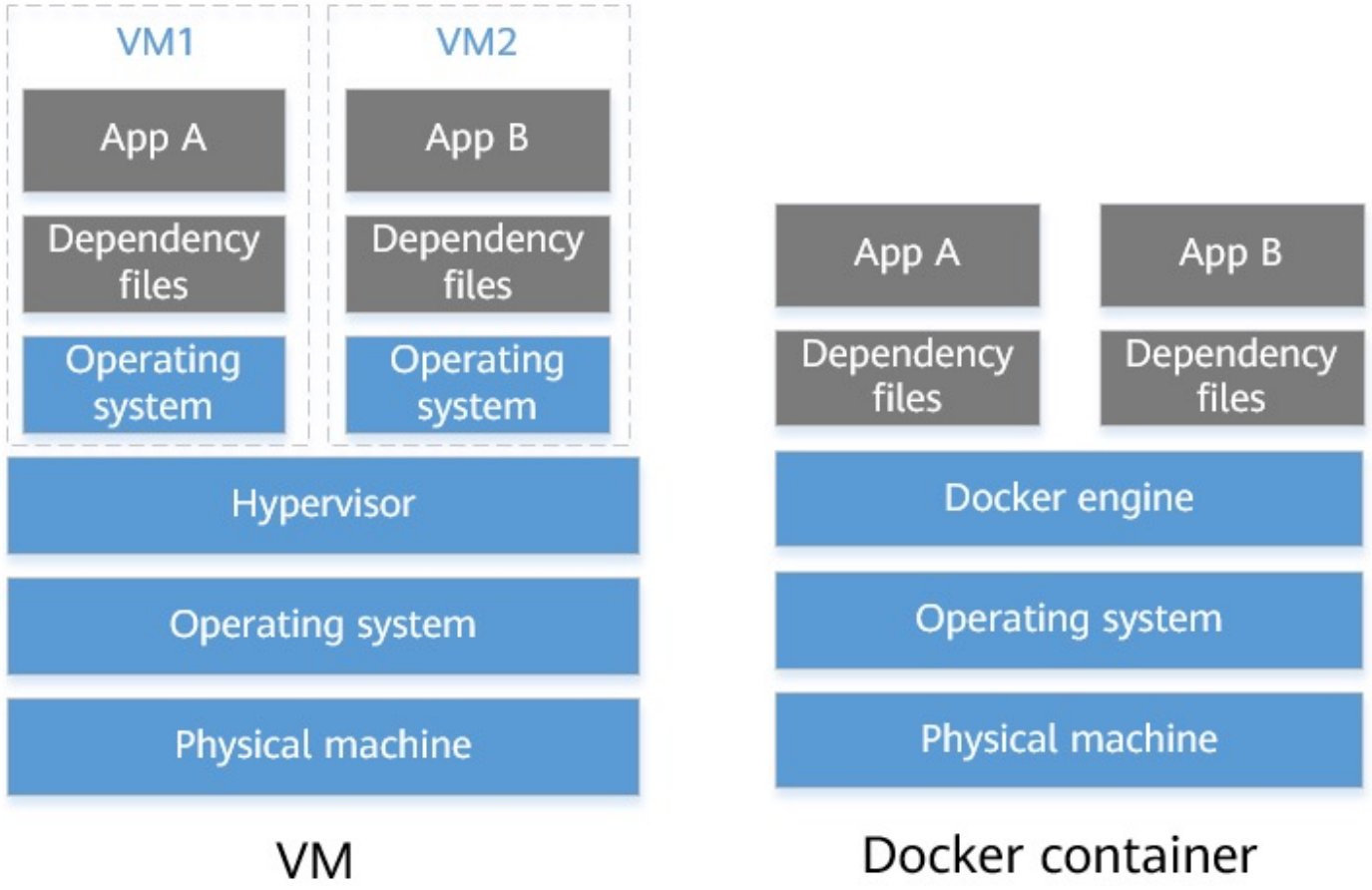

REST API Model
GET, POST, PUT, DELETE
JSON data
REST API
Mobile/web/
desktop client
Server

Nginx web server



Docker

Docker is a platform designed to help developers build, share, and run container applications.



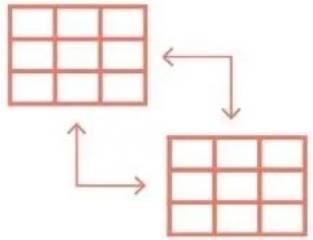
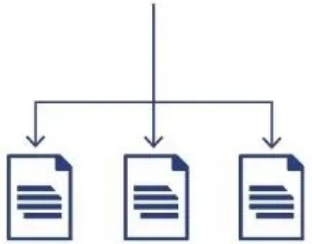
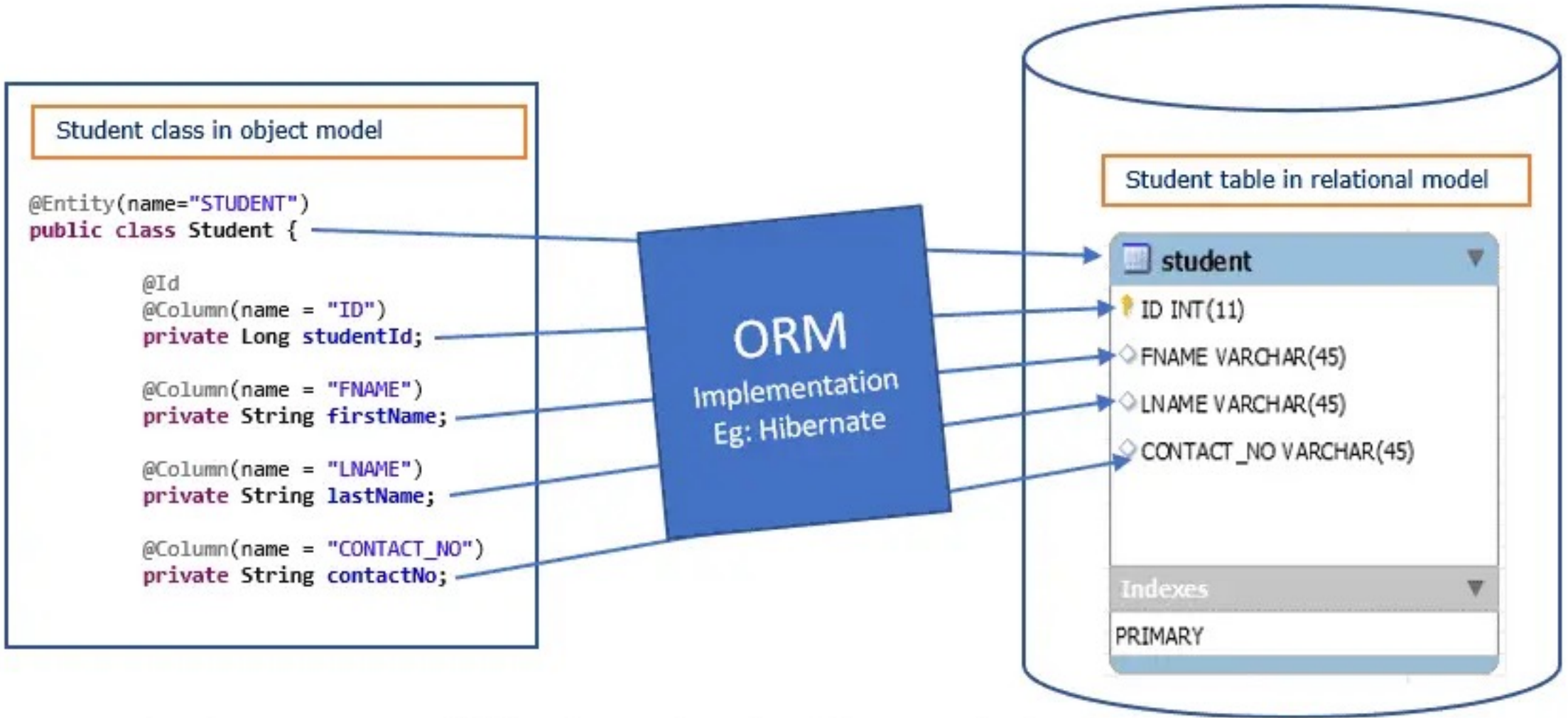
Database

user_id	first_name	last_name	age
1	Joe	Doe	29
2	Jane	Dan	31
3	Potter	Paul	39
4	Pil	Passot	41

Table: Users

order_id	name	price	user_id
1	Wristwatch	$10	4
2	Keyboard	$42	2
3	Chair	$120	4
4	Phone	$310	1

Table: Orders

SQL	NoSQL
Structured	Unstructured
	
VS	
Fixed rows & columns - Static schema	Dynamic schema
Structured data	Unstructured data
Suited for complex trasactions	Suited for big data analytics
Best for e-commerce platforms	Best for social media platforms
MySQL, PostgreSQL	MongoDB, Cassandra

ORM (Object Relational Mapping)