# Introduction to Object-relation mapping

Fundamental Database Systems 2017

Titipat < ttpsvb@gmail.com>

#### Let's talk about definition

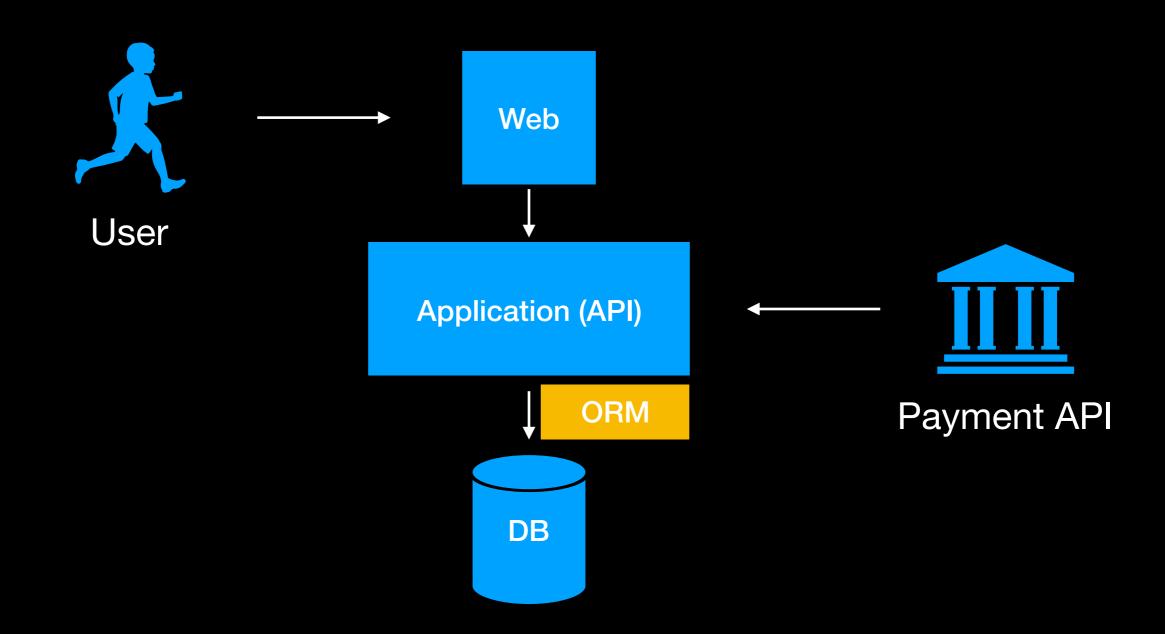
• The Object-oriented is an approach that let you manipulate data in databases by mapping its relations and represent as Model.

### Pros and cons

- No need to repeat same SQL script.
- Data type abstraction.
- Model relationships.

- Fatigue response.
- Setup overhead.

## CMU Marathon 2017



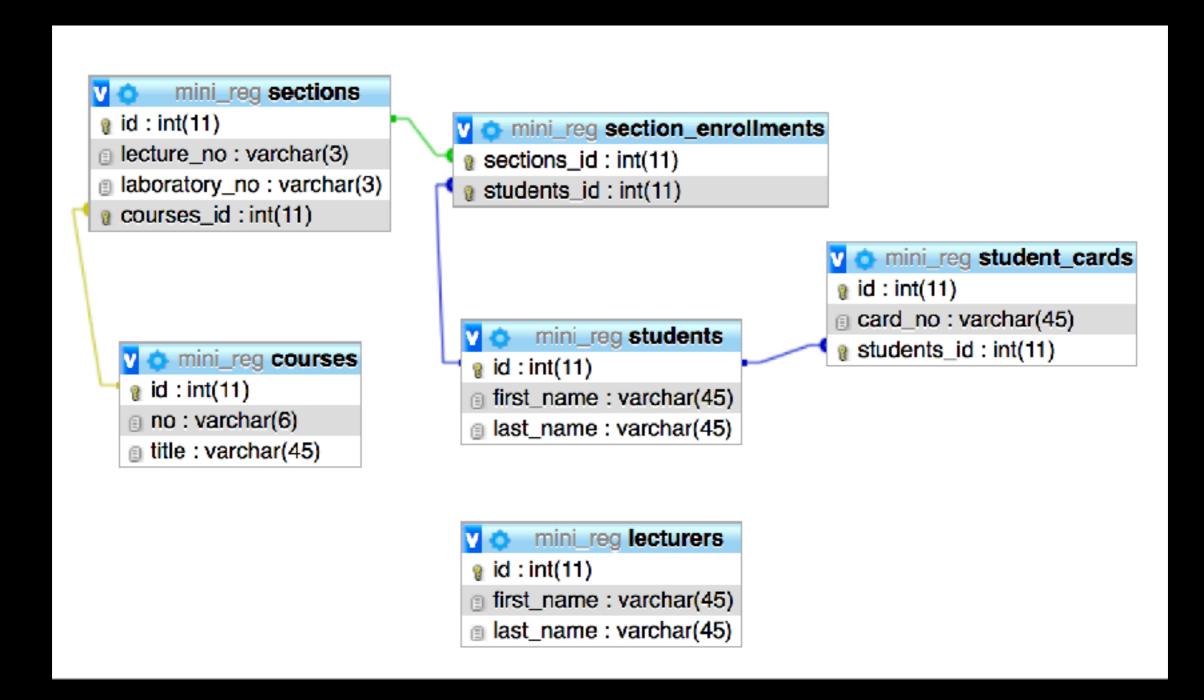
3-tier architecture

# Enterprise

Request Presentation Layer: UI, API Business Layer: Logic, Middleware, Validator **RAM** Persistent Layer: DAO, ORM DAO: Data Access Object **Database Layer** 

E.g. Java EE

#### Mini REG



#### References

- Eloquent: Getting Started <a href="https://laravel.com/docs/5.5/eloquent">https://laravel.com/docs/5.5/eloquent</a>
- Software architecture patterns <a href="https://www.oreilly.com/">https://www.oreilly.com/</a>

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  architecture