

# Introduction

523419

(Advanced Web Application Development)

Dr. Nuntawut Kaoungku  
Assistant Professor of Computer Engineering

# Grading Scheme

- Class Attendance (10%)
- Lab Assignment (20%)
- Project (20%)
- Mid-term Exam (25%)
- Final Exam (25%)

85 - 100	A
80 - 84	B+
75 - 79	B
70 - 74	C+
60 - 69	C
55 - 59	D+
50 - 54	D
0 - 49	F

The screenshot shows a web browser window for the SUT e-Learning platform at [elearning2.sut.ac.th](https://elearning2.sut.ac.th). The page is in Thai (th) language. The main content area displays course information for "523419 Advanced Web Application Development (ผศ. ดร.นันกุณย์ คงอัจกุ)".

**Course Information:**

- 523419 Advanced Web Application Development (ผศ. ดร.นันกุณย์ คงอัจกุ)
- นักเรียนและผู้สอน (Lecturer)
- Badges
- Competencies
- คะແນນກັ້ງໝາດ
- General
- Lecture
- Lab Assignment
- Project
- ແພັນຄວບຄຸມ
- หน้าແຮກຂອງເວີບໄຊຕີ
- ປົກກິບ
- ໄຟລ໌ສ່ວນຕົວ

**Course Details:**

523419 Advanced Web Application Development (ผศ. ดร.นันกุณย์ คงอัจกุ)

ແພັນຄວບຄຸມ / ວິຊາເຮັດວຽກ / 523419 Advanced Web Application Development (ผศ. ดร.นันກุณย์ คงอัจกุ)

ເຮັດວຽກແກ້ໄຂໃນຫຼັບນັ້ນ

ກະຕານຂ່າວ

**Lecture**

ວັນຈັນທີ ເວລາ: 13.00 - 16.00 ພ. ກ້ອງ: B1203

**Lab**

ວັນອັງຄາຣ ເວລາ: 13.00 - 16.00 ພ. ກ້ອງ: F11-422.Software

Course Syllabus

ດຽວວິຫຼາຍໂດຍກຳນົດ 1/65

**Lecture**

**Lab Assignment**

# SUT elearning

Manage teaching and learning

รายวิชา: 523419 Advanced Web Application Development (มศ. ดร.นันททราย คงอัจงกุ)

523419 Advanced Web Application Development (1/2565) | Facebook

The screenshot shows a Facebook group page. The group name is '523419 Advanced Web Application Development (1/2565)'. The page features a vibrant illustration of people working together in a park-like setting with flowers and a city skyline in the background. The main post on the timeline reads '523419 Advanced Web Application Development (1/2565)'. The sidebar on the left contains various group statistics and links.

- หน้าหลักของคอมมูนิตี้
- ภาพรวม
- เครื่องมือของผู้ดูแล
- ตัวช่วยผู้ดูแล
- คำขอเป็นสมาชิก
- คำขอเครื่องหมาย
- คำตามเพื่อการเป็นสมาชิก
- โพสต์ที่รอดำเนินการ
- โพสต์ที่กำหนดเวลาไว้
- บันทึกกิจกรรม

จำนวนผู้ใช้งาน: 1 คน

สถานะ: กลุ่มลับ

ตัวเลือก: ได้เข้าร่วม

ลิงค์: <https://www.facebook.com/groups/404151778240276>

# Facebook Group



<https://www.facebook.com/groups/404151778240276>

# Classroom

- **Lecture :**

- วันจันทร์ เวลา: 13.00 - 16.00 น.
- ห้อง: B1203

- **Laboratory :**

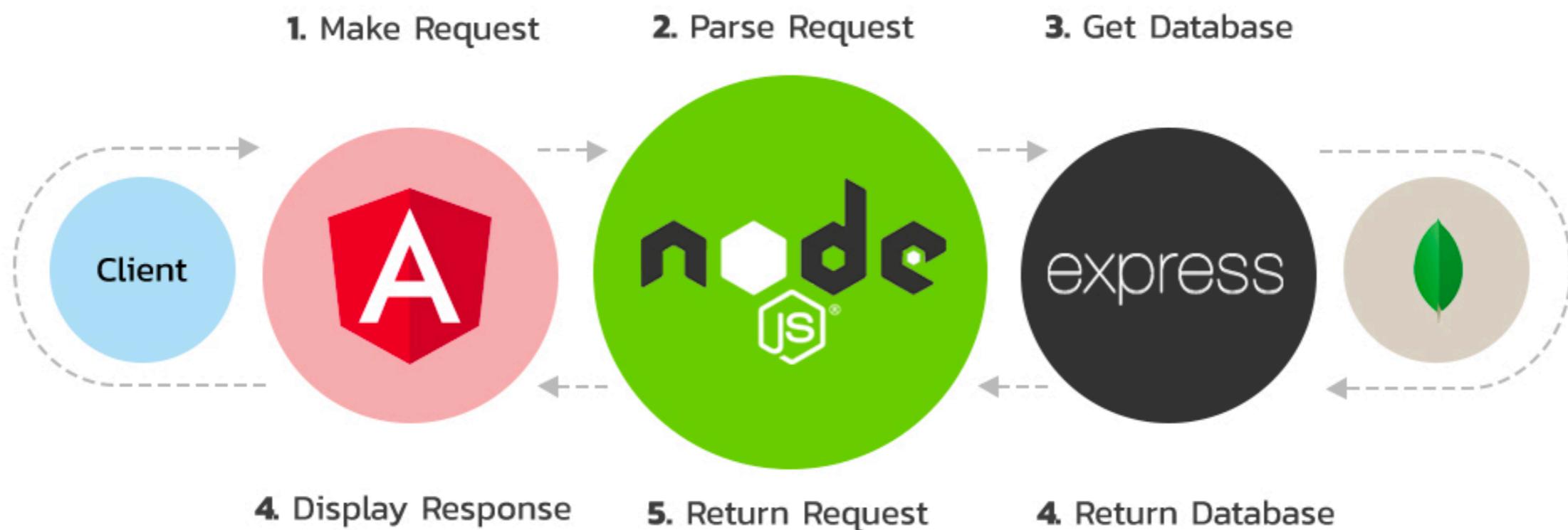
- วันอังคาร เวลา: 13.00 - 16.00 น.
- ห้อง: F11-422.Software



# Course Outline

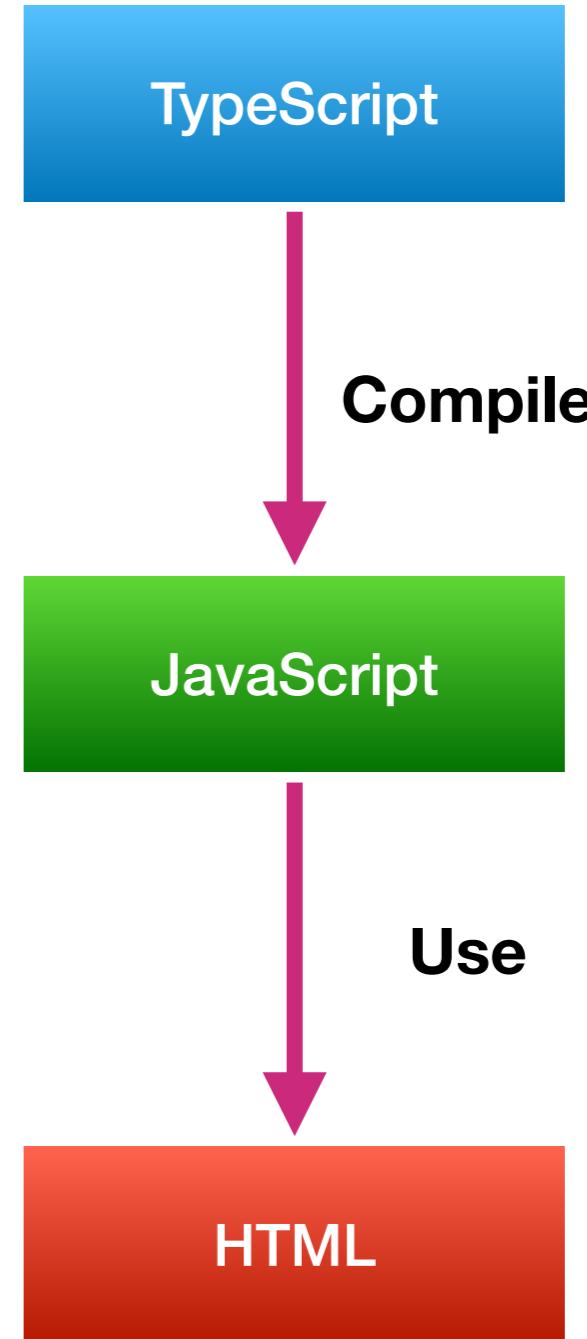
- Introduction to Angular concepts
- Modules, Components
- Form, Data Binding, Pipes
- Directive
- Services and dependency injection
- Routing and navigation
- Introduction to Node.js concept
- Asynchronous Operation
- Web Server with Express
- Web Security

# MEAN Stack Integration



# What is Angular

- Angular is a JavaScript Framework
- Angular is used to build client-side applications using HTML
- Angular bootstraps JavaScript with HTML tags
- Angular is used to make reach UI application
- Angular enhances UI experience for User
- Angular code is written in TypeScript language
  - TypeScript is compiled into JavaScript
  - JavaScript is used in HTML pages

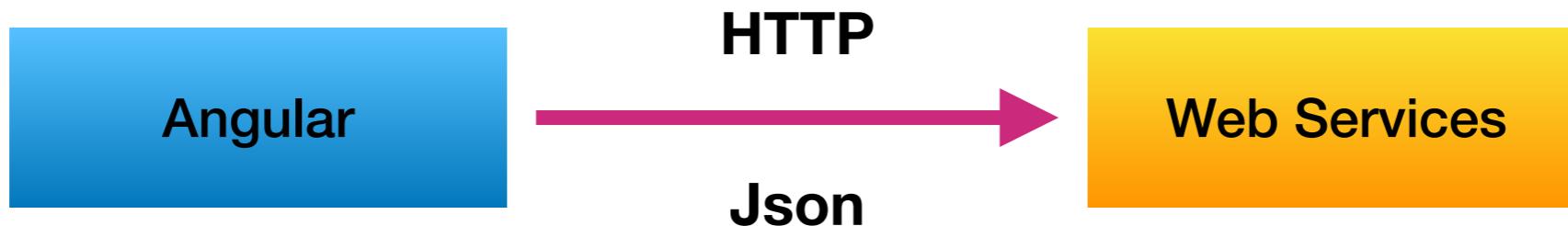


# Angular enhances HTML

- Angular has set of directives to display dynamic contents at HTML page.
  - Angular extends HTML node capabilities for a web application.
- Angular provides data binding and dependency injection that reduces line of code.
- Angular extends HTML attributes with Directives, and binds data to HTML with Expressions.
- Angular follows MVC Architecture

# Angular – REST Web Services

- Angular communicates with RESTful web services in modern applications
- RESTful Web Services are accessed by HTTP call
- RESTful Web Services exchange JSON data

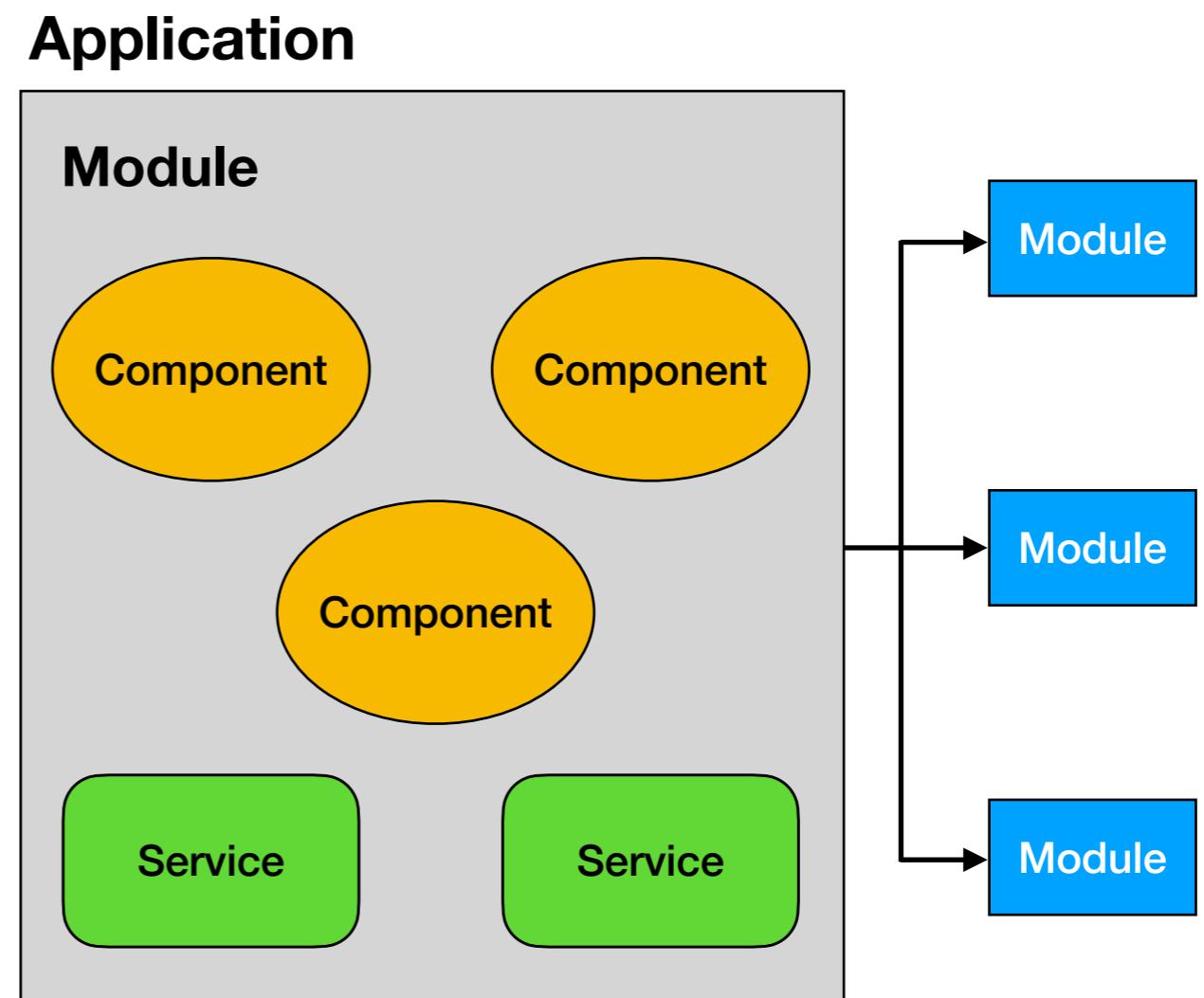


# Angular Application

- An application is a Module
- Module contains components
- Component uses Services
- Services contains data and reusable business methods
- Basic building block of Angular is Component
- It is said that Angular follows Component/Service architecture. Internally it follows MVC Architecture

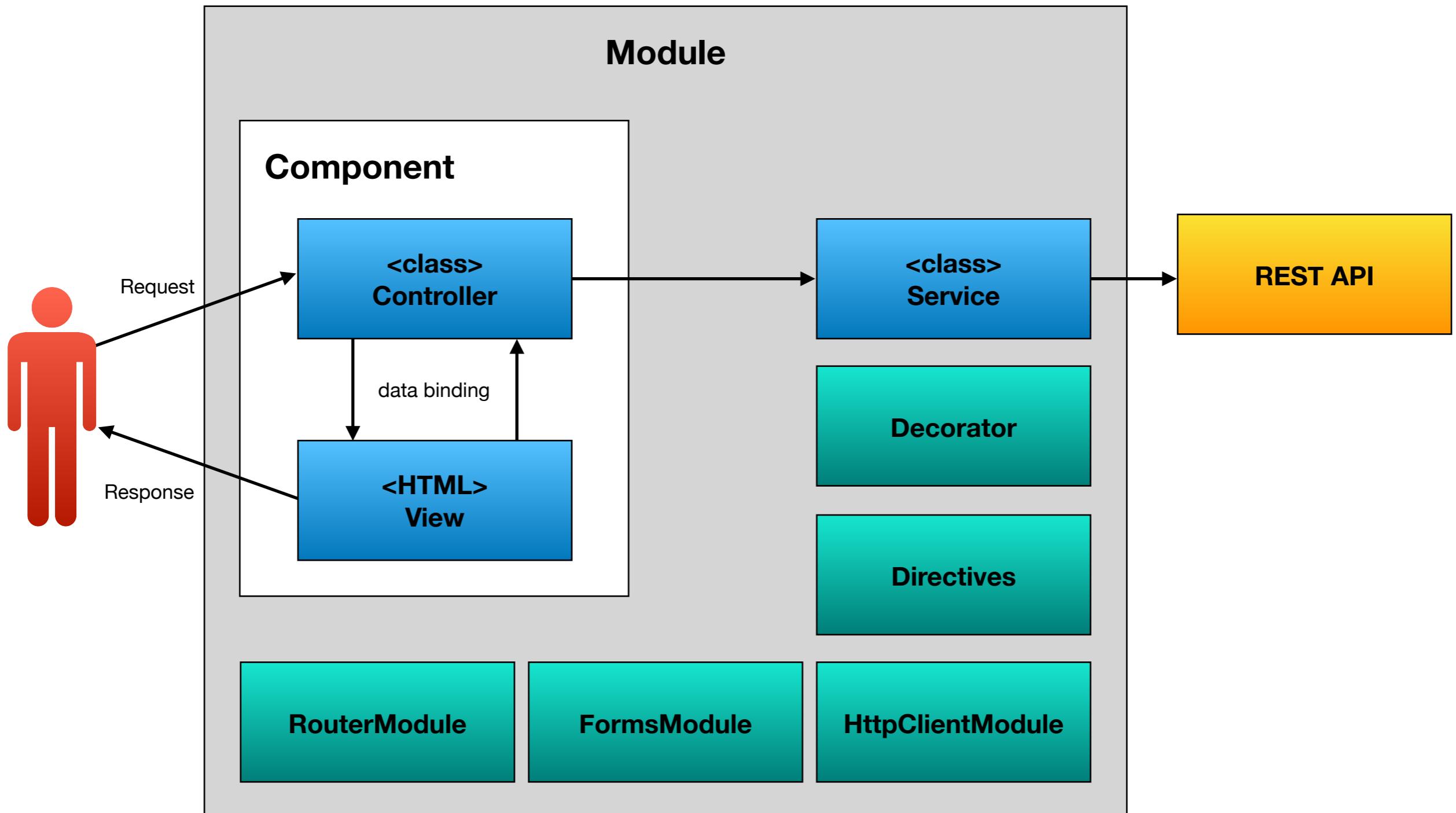
# Angular Application ( Contd.)

- An Application is a Module
- Modules are reusable
- One Module's components and services can be used by another module Application Component Component Component Component



# MVC Architecture

## Application



# MVC Architecture (Contd.)



## View

- contains display logics, developed using HTML and Angular Directives



## Controller

- Contains navigation logic. Decides data and view to be displayed



## Model

- Carry data between View and Controller

# What is Node.js

TOP 10 BACKEND FRAMEWORKS FOR  
WEB DEVELOPMENT IN  
2020

ASP.NET

PHOENIX (ELIXIR) django express RAILS

pyramid play spring LARAVEL Ruby Flask

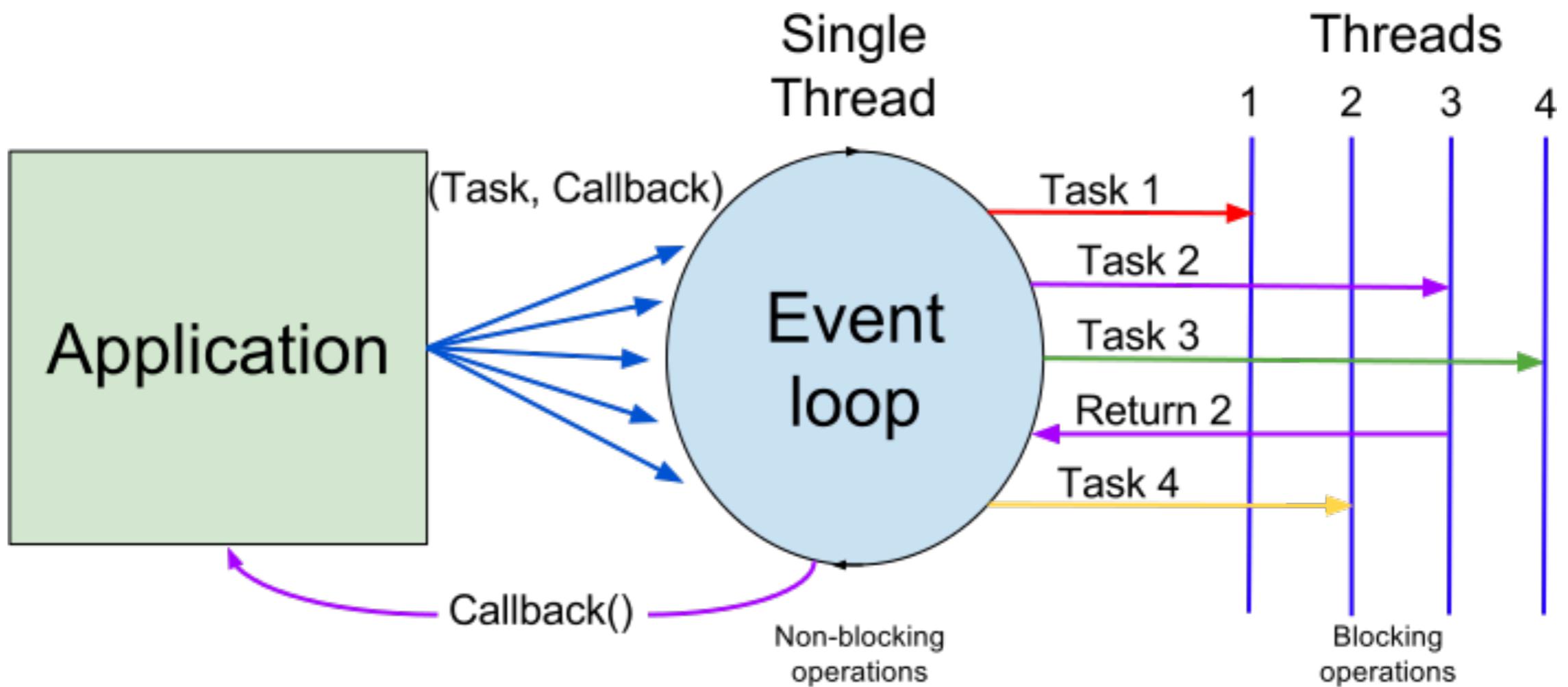
Decipher Zone Software  
Web Application Development Company

<https://decipherzone.com>

# What is Node.js

- Server-side JavaScript
- Asynchronous and Event Driven
- Very Fast
- Single Threaded but Highly Scalable
- No Buffering
- License

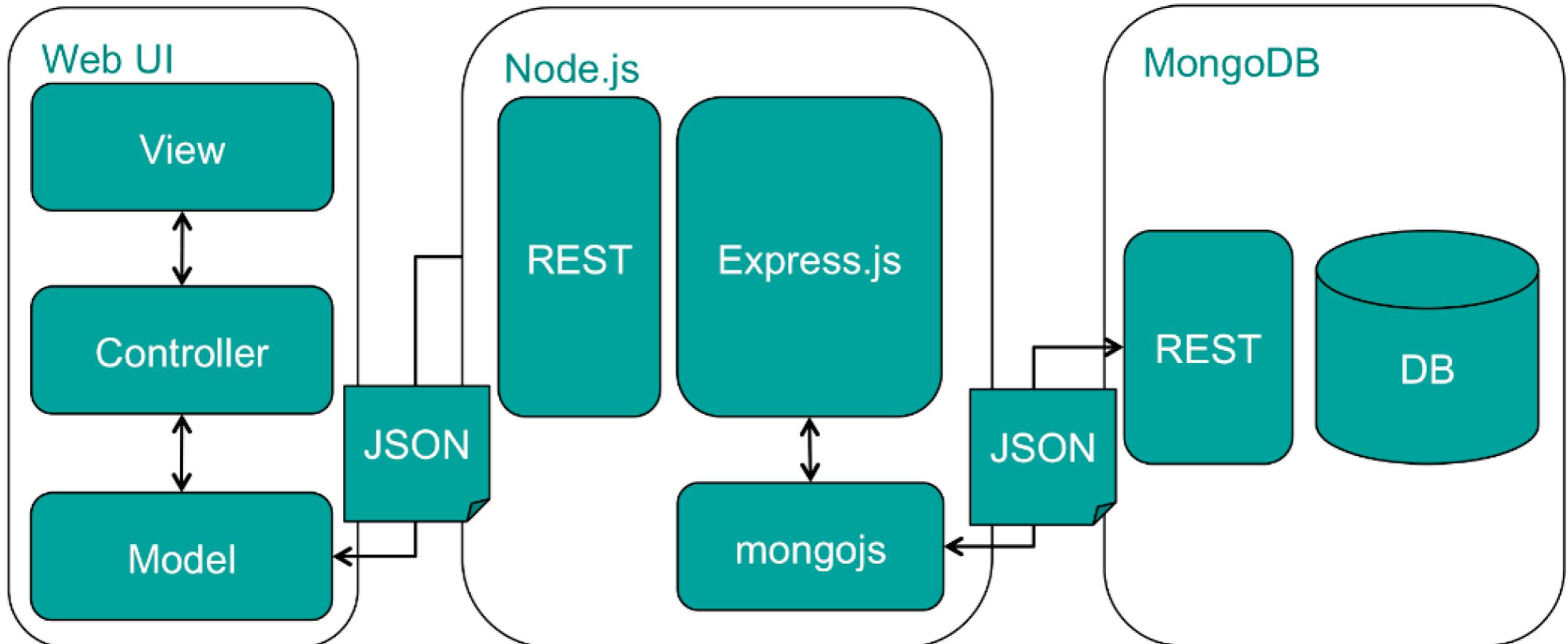
# Event Loop



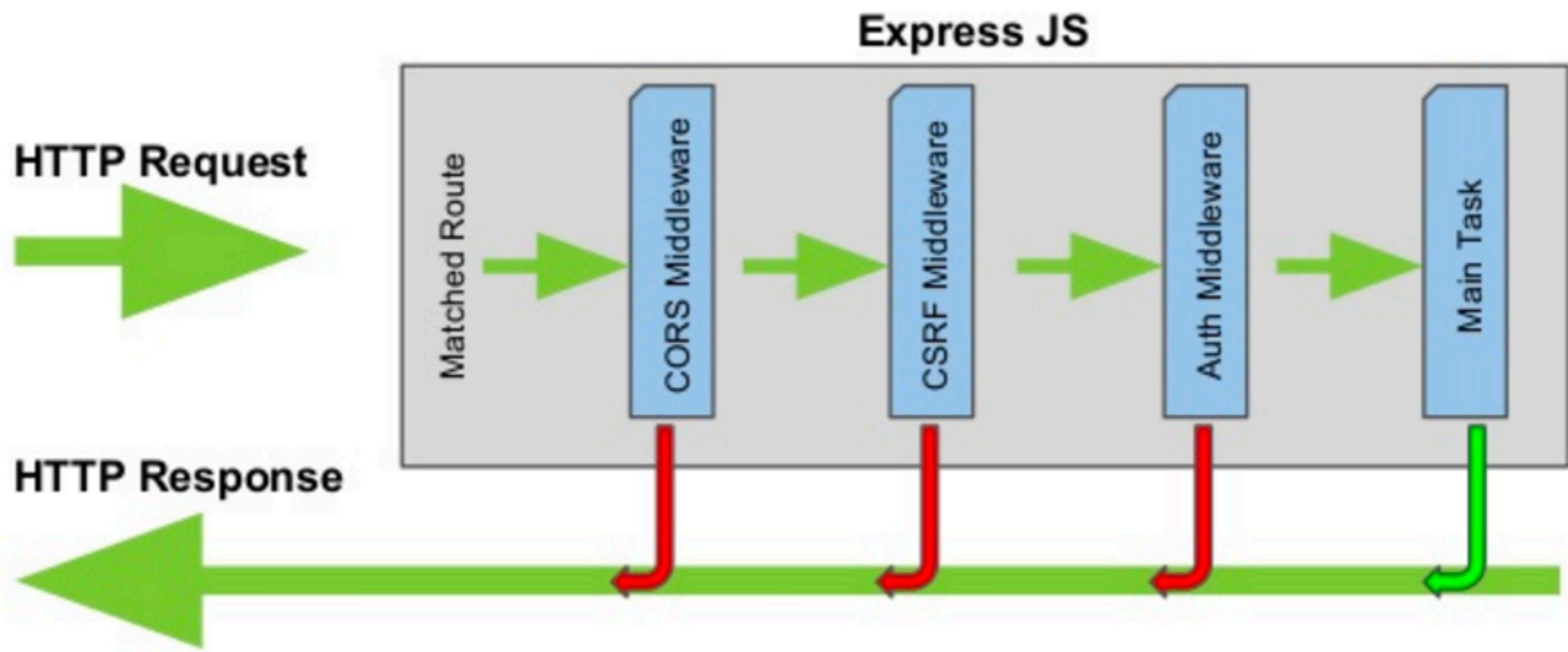
# What is Express

- Express.js is a Node.js web application server framework
- It has become the standard server framework for node.js. Express is the backend part of something known as the MEAN stack.
- Write handlers for requests with different HTTP verbs at different URL paths (routes).
- Integrate with "view" rendering engines in order to generate responses by inserting data into templates.
- Set common web application settings like the port to use for connecting, and the location of templates that are used for rendering the response.
- Add additional request processing "middleware" at any point within the request handling pipeline.

# What is Express



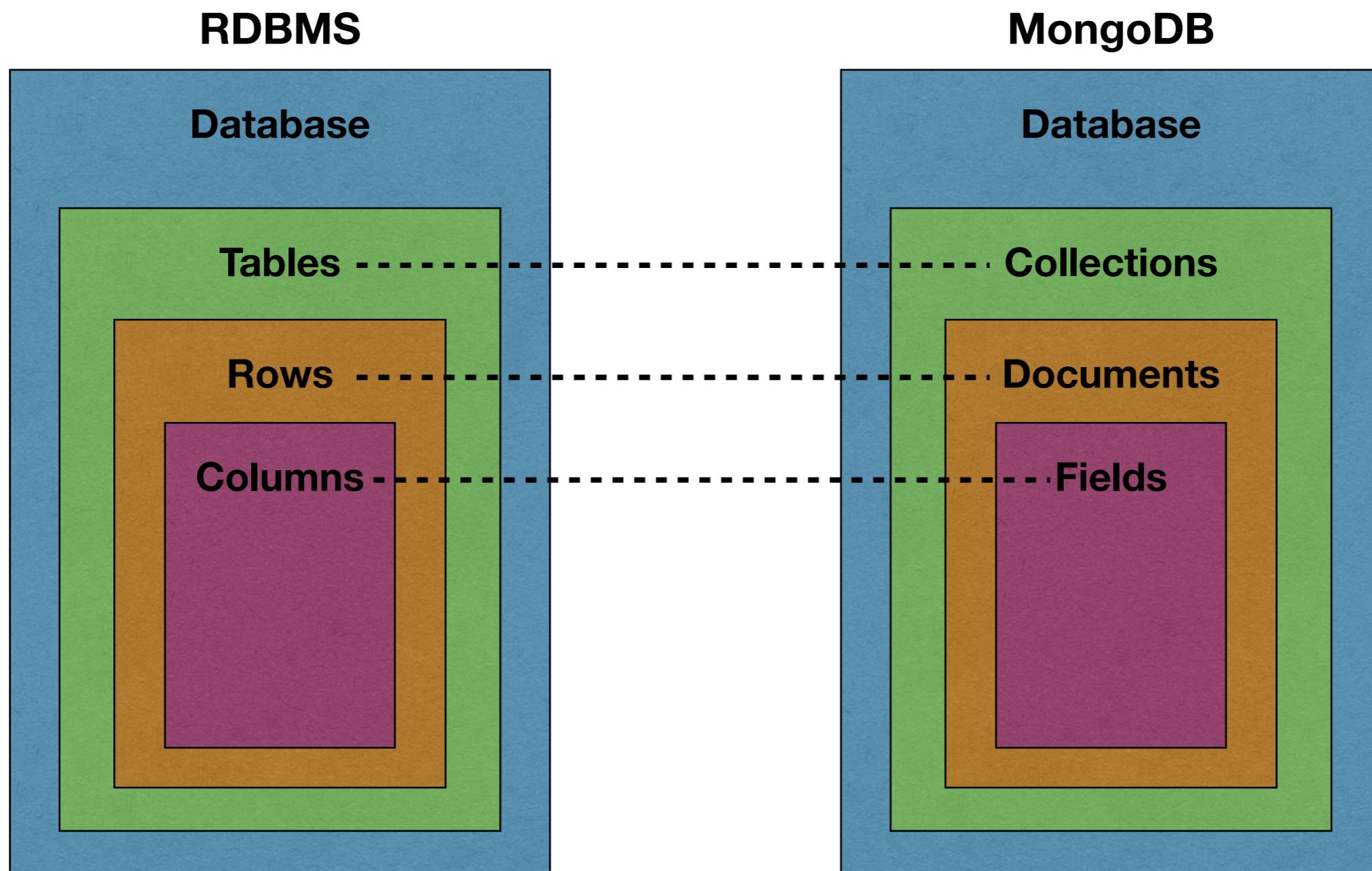
# Express.js Middleware Simplified



# What is MongoDB

- It is a NoSQL database called (Document database)
- It stores data in flexible JSON-like document.
  - Easy to develop REST API in JSON
- It is highly scalable and flexible database

# Comparison between SQL and MongoDB



# Where to use MongoDB?

- Big Data
- Content Management and Delivery
- Mobile and Social Infrastructure
- User Data Management
- Data Hub