



Technical and Deployment Architecture

Part 1

Capstone: Photo Tourist Web Application



In this lecture, we will discuss...

- ✧ Technical Architecture
 - Capabilities and Technologies
 - Layers
- ✧ Deployment Architecture
 - API and Database
 - Web Client



Bounding Context



Technical Architecture



Database and Persistent File Storage



Database and Persistent File Storage (RDBMS)



- ✧ SQLite
 - Early Learning
- ✧ PostgreSQL
 - Full RDBMS support
- ✧ ActiveRecord
 - Object/Relational Mapper
- ✧ SQL - Complex queries

- ✧ Uses
 - Core Business Objects
 - Relationships
 - User Accounts

Database and Persistent File Storage (NoSQL)



- ✧ MongoDB
- ✧ Mongoid
 - Object/Document Mapper
- ✧ Not used
 - GridFS
 - MongoDB Ruby API

- ✧ Uses
 - Image content
 - Cloud Storage Alternative
 - BSON::Binary type
 - Persistent Cache
 - Raw Response Hash

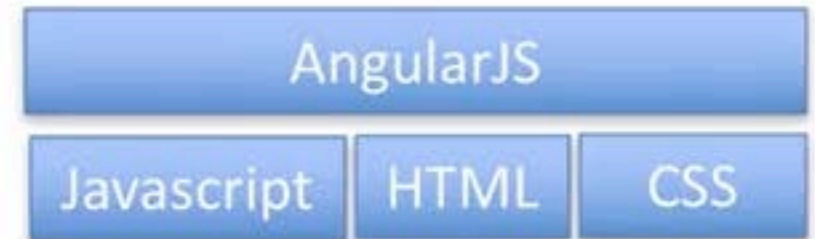
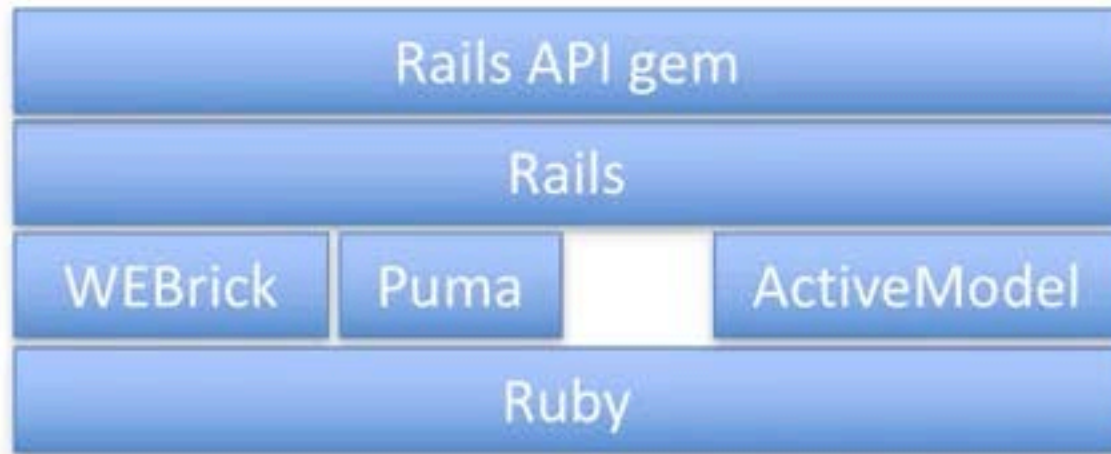
Database and Persistent File Storage (Browser)



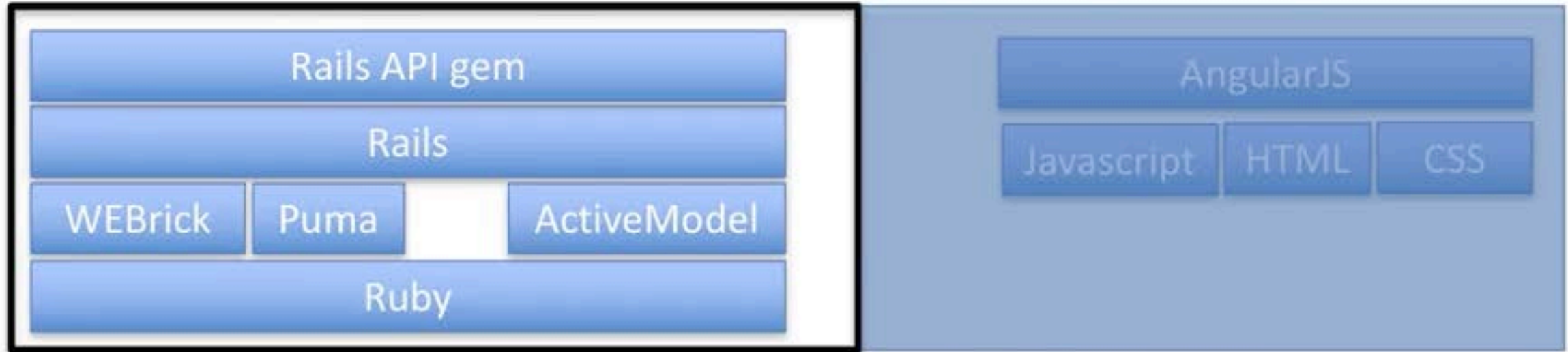
✧ Browser Cookie Store

- ng-token-auth
 - Current Login

Application Frameworks and Languages



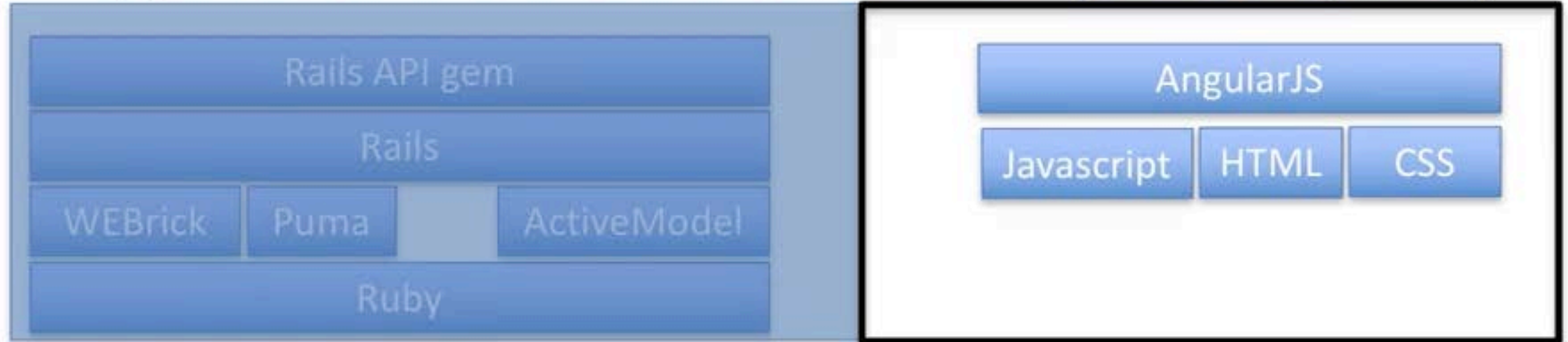
Application Frameworks and Languages (Server)



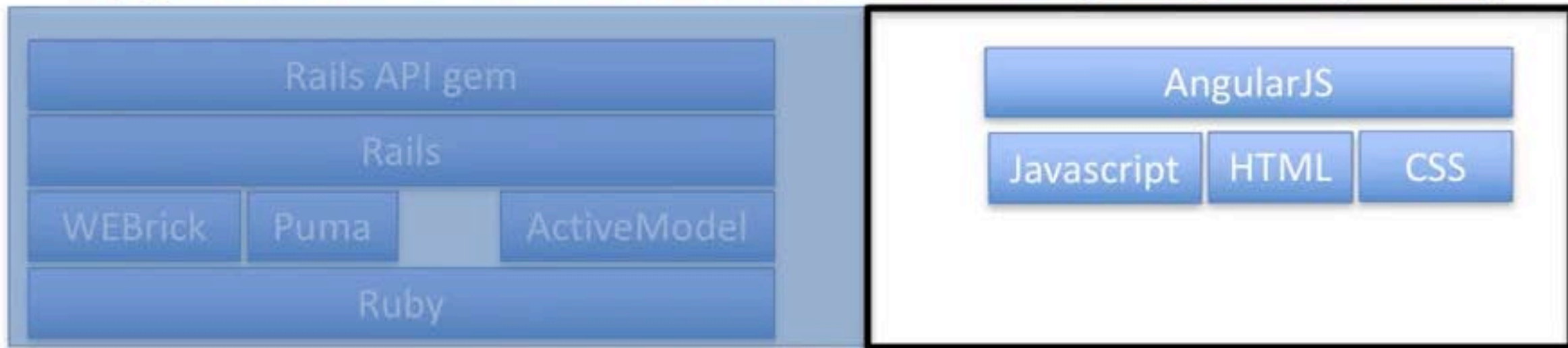
- ✧ Rails (version 4)
- ✧ Web Servers
 - WEBrick (Rails 4 default)
 - Single-threaded
 - Puma (Rails 5 default)
 - Multi-threaded
 - Not available on Windows

- ✧ Rails-api gem
 - add-on gem in Rails 4
 - part of core Rails 5
 - Scales server back to API features
- ✧ ActiveModel
- ✧ Ruby

Application Frameworks and Languages (Web)



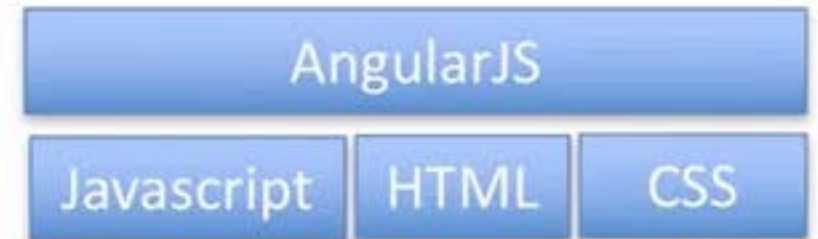
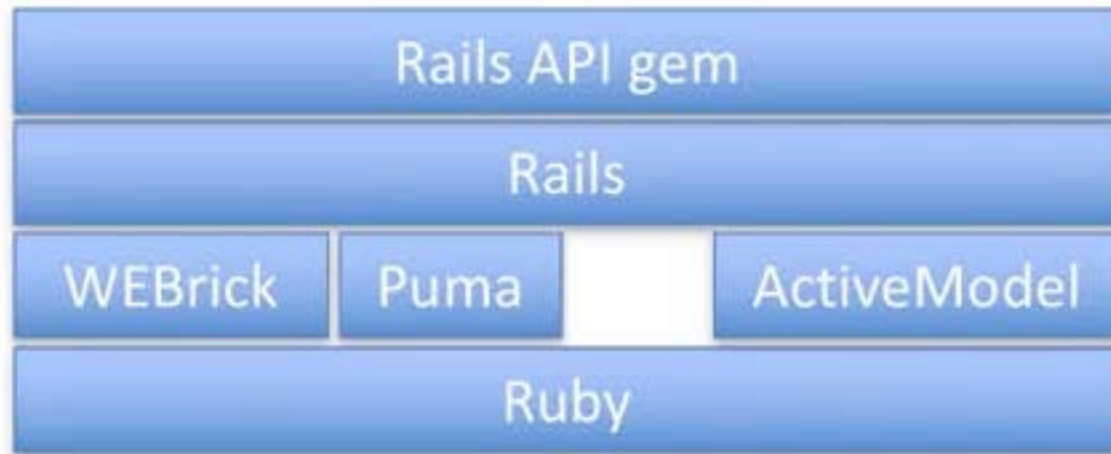
Application Frameworks and Languages (Web)



- ✧ AngularJS
 - version 1.5

- ✧ Javascript
- ✧ HTML
- ✧ CSS

Application Frameworks and Languages



Summary

- ✧ Technical Architecture (2 of 7 application areas)
 - Database and Persistent Storage
 - Application Frameworks and Languages

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What's Next

- ✧ Technical Architecture Part II