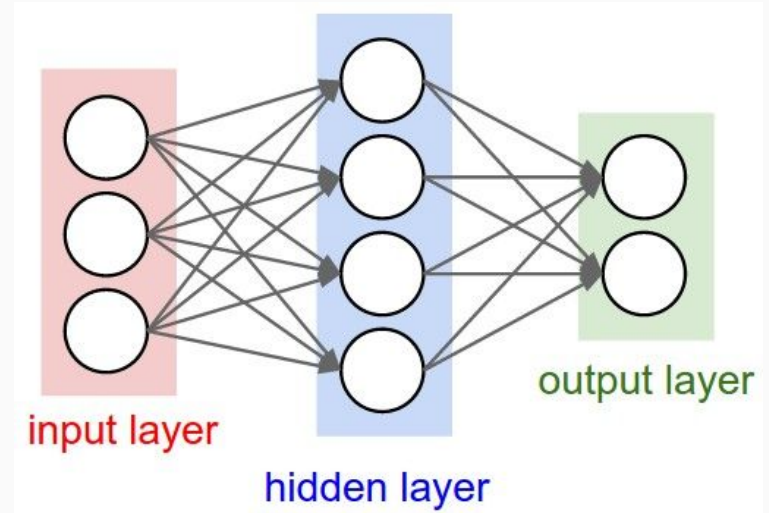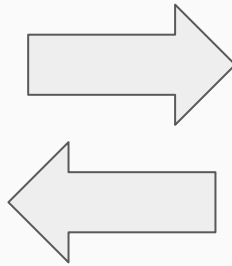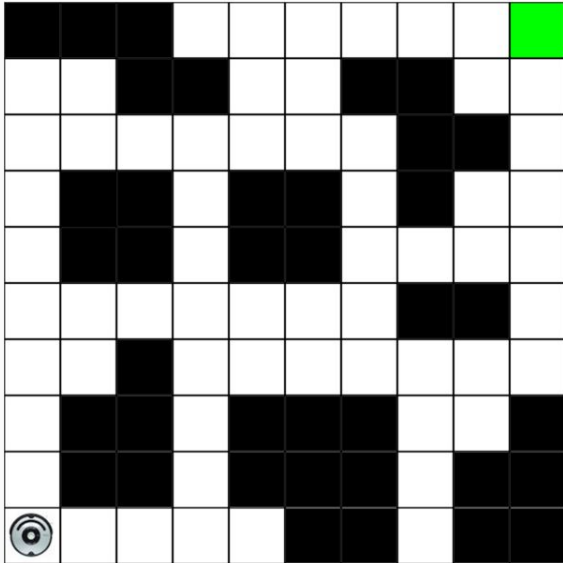# CSCI5448 RobotPathLearning Team13

Bo Cao
Fernando Nobre
Zhongzhi Zhang

Robot Path Learning?

Use Cases

User Case ID:

UR-008

User Case Name:

Replay the path

Description:

User can let the robot move along a previously created path.

Use Cases

User Case ID:

UR-010
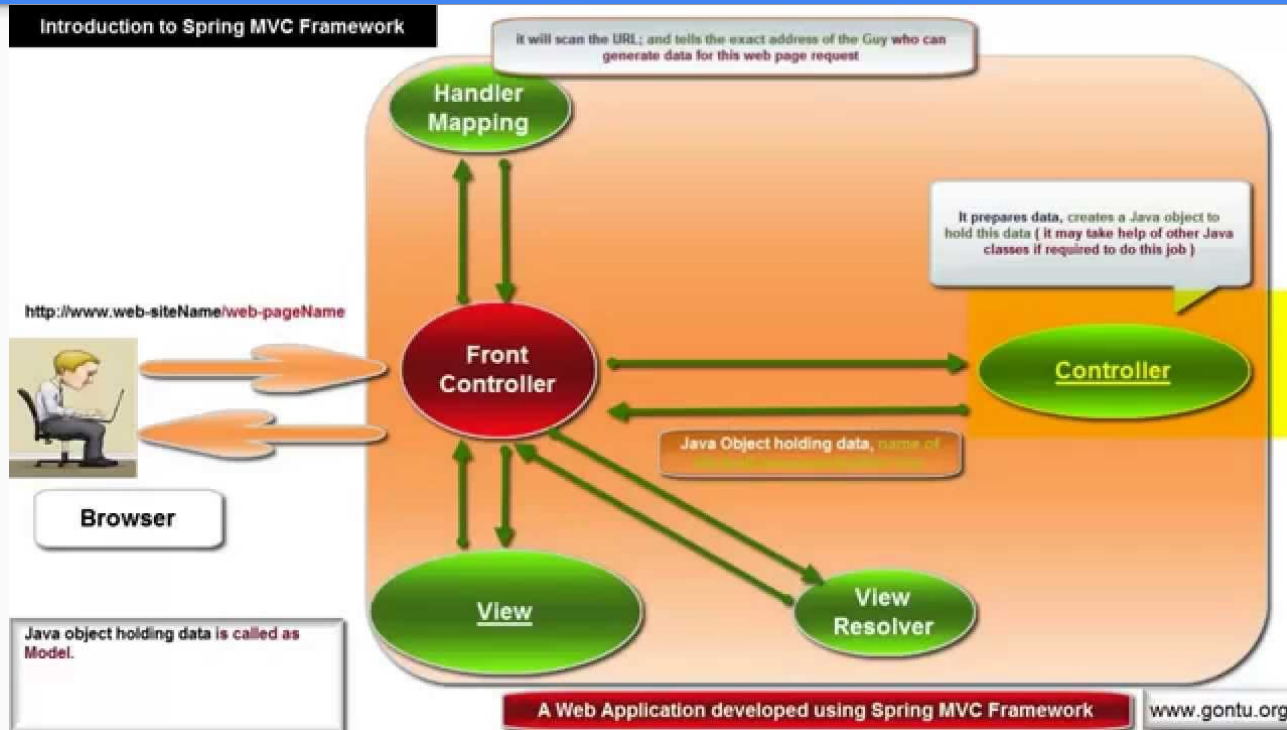
User Case Name:

Add obstacle to map

Description:

A User can add an obstacle to the map by clicking on the map.

System Demo

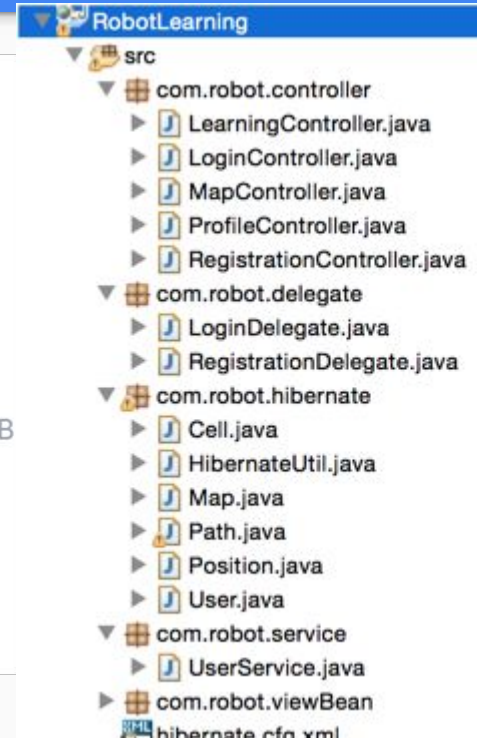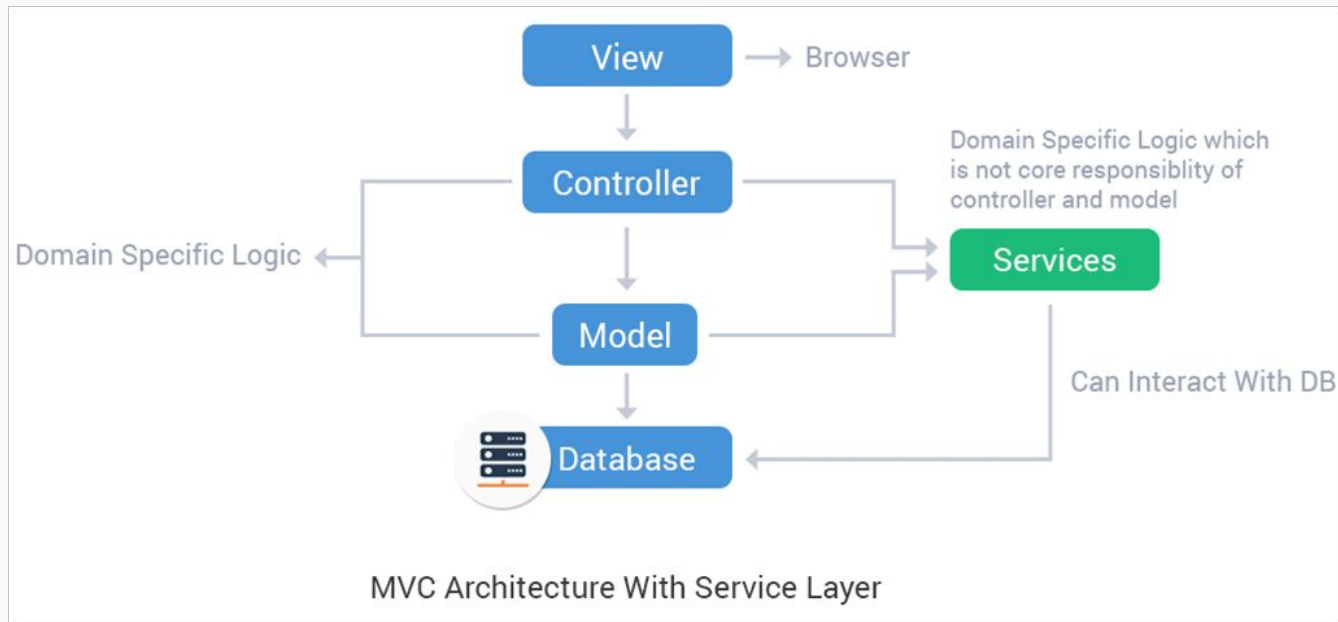# Architecture

Architecture/Frameworks

- Spring MVC
- Hibernate/MySQL
- SiteMesh
- jQuery
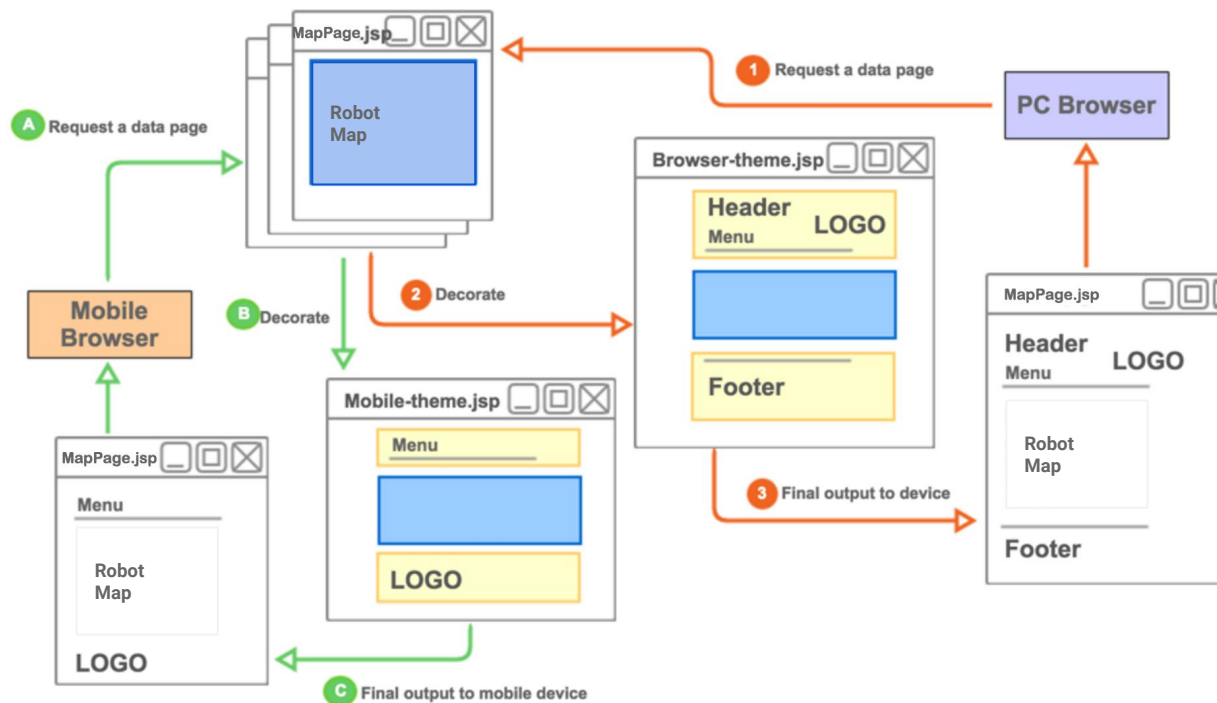- Bootstrap

Design Patterns

- Dependency Injection
- Service Layer
  - Decoupling and maintainability
  - Writing a web API is easy
  - Controller has no business logic
  - Unit tests are easy
- Decorator
- Observer

Service Layer

MVC Architecture With Service Layer

View → Browser

Controller

Model

Database

Domain Specific Logic

Domain Specific Logic which is not core responsiblity of controller and model

Services

Can Interact With DB

RobotLearning
- src
  - com.robot.controller
    - LearningController.java
    - LoginController.java
    - MapController.java
    - ProfileController.java
    - RegistrationController.java
  - com.robot.delegate
    - LoginDelegate.java
    - RegistrationDelegate.java
  - com.robot.hibernate
    - Cell.java
    - HibernateUtil.java
    - Map.java
    - Path.java
    - Position.java
    - User.java
  - com.robot.service
    - UserService.java
  - com.robot.viewBean
  - hibernate.cfg.xml

Decorator

Demo Video

Github:

https://github.com/BryanBo-Cao/CSCI5448-RobotPathLearning-Team13/blob/master/RobotPathLearning_Video.mov

Youtube:

https://www.youtube.com/watch?v=gMJwqA66rKk