

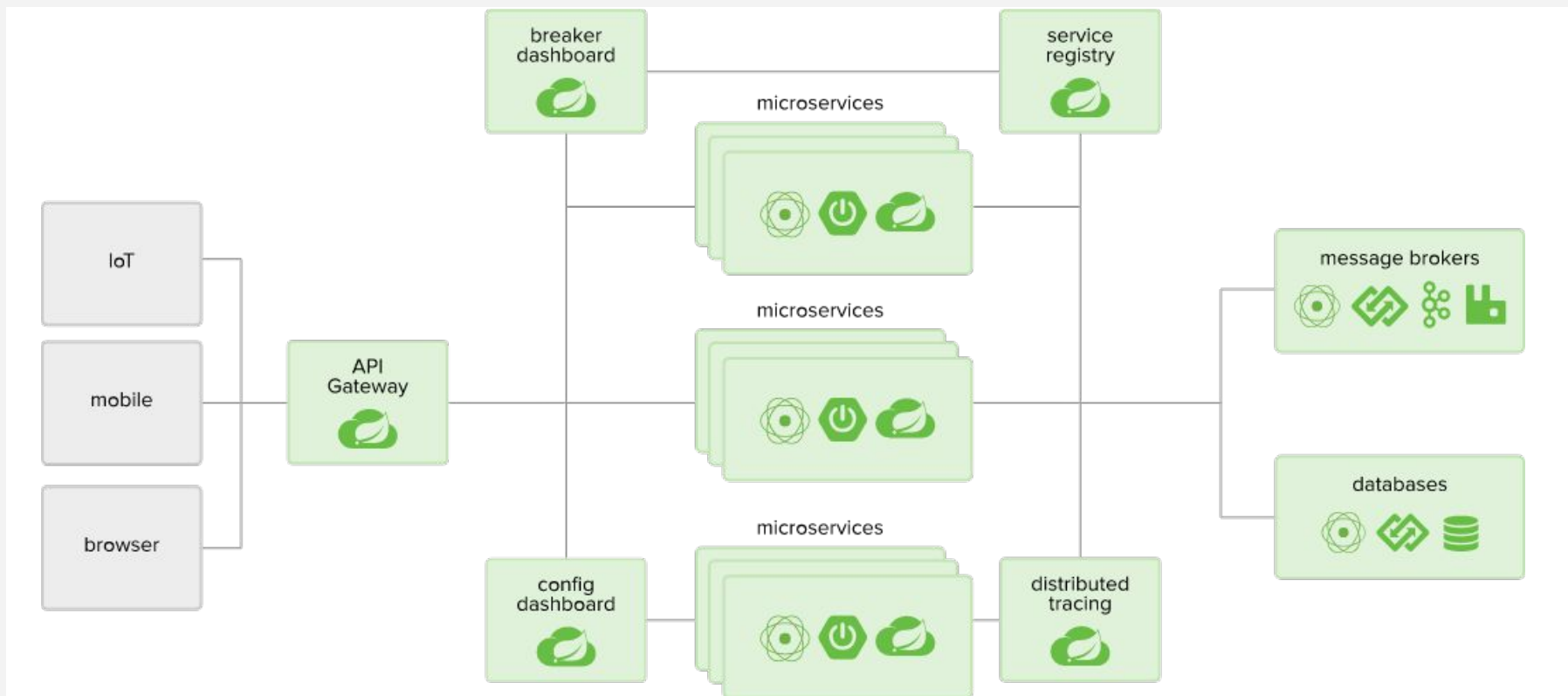
SESSION TWO

Introducing Spring Boot

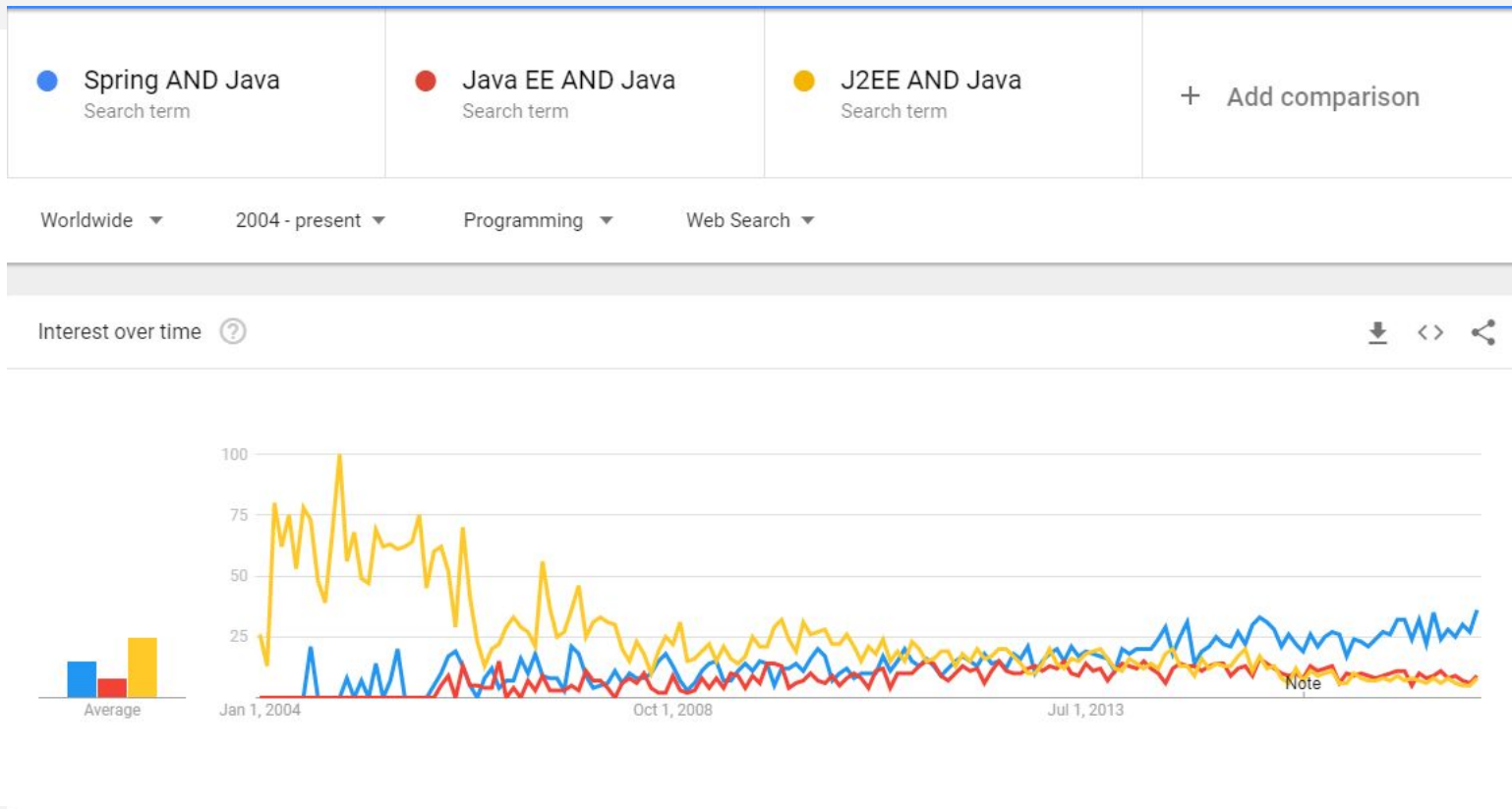
A group of people in a workshop setting. A man on the left is pointing at a wall covered in papers. A group of people is seated in the center, and another man is standing on the right. The image has a blue tint and a teal rectangular frame around the seated group.

What's Spring Been Up To?

Spring Opportunities

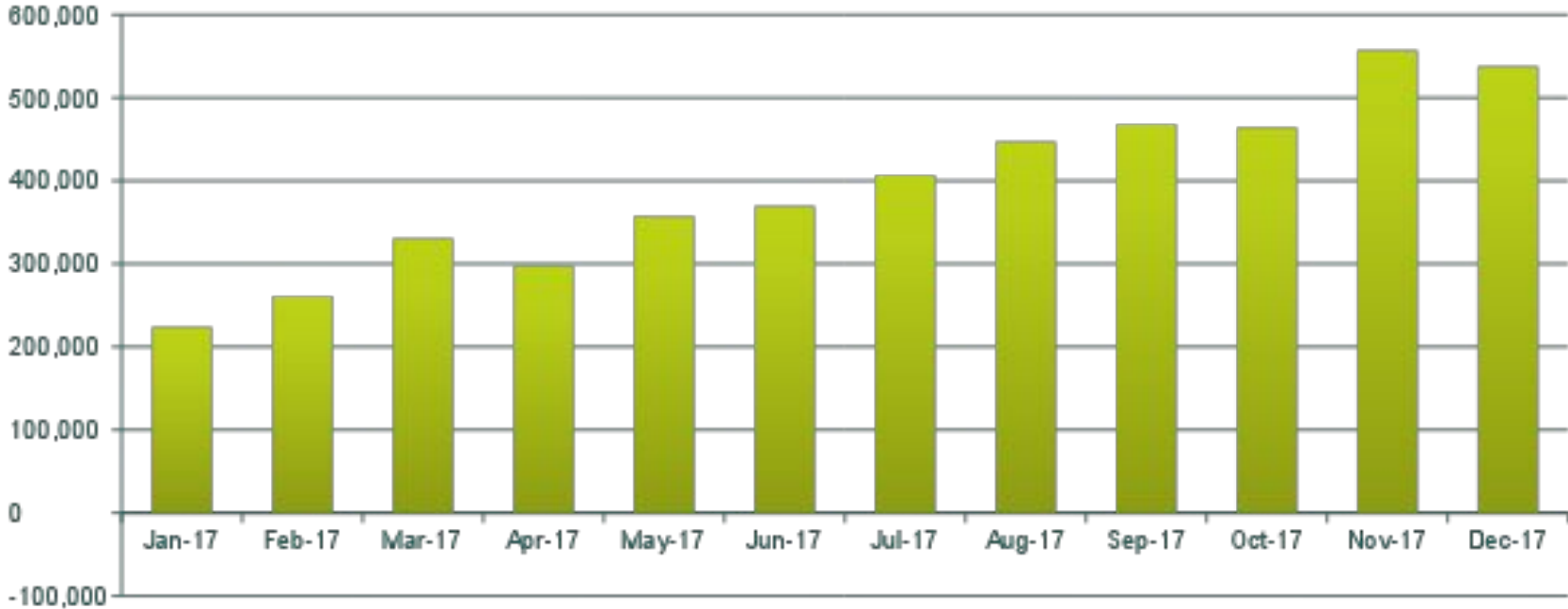


Spring vs Java EE

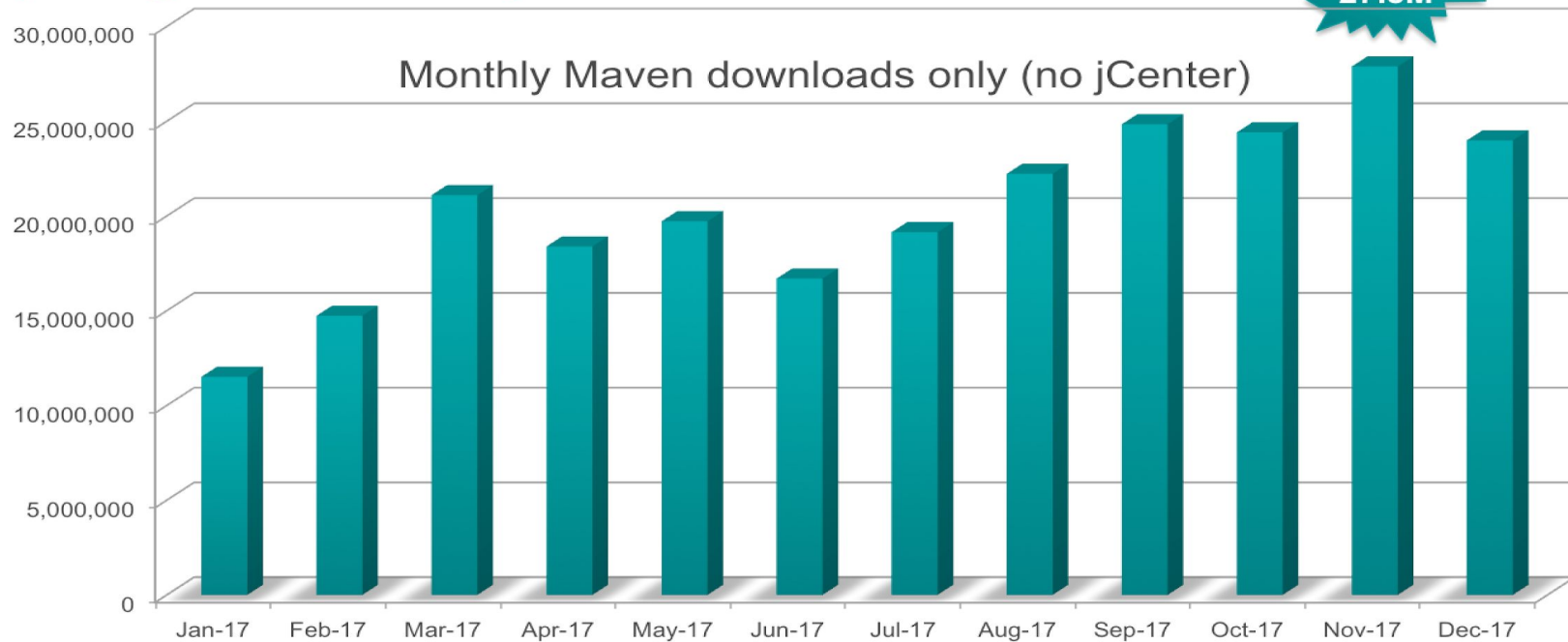


Spring Boot Popularity

Monthly Initializr Projects Generated



Spring Boot Adoption



Source: oss.sonatype.org + spring powered data quality filtering. (e.g. removing our own downloads).

Pivotal

Aspect-Oriented Programming

Separation of Concerns through Modularity.

- Annotations
- Dependency Injection
- Abstract Implementation
- Encapsulation
- Enables cross-cutting functionality

A group of people in a workshop setting. One person is standing and pointing at a wall covered in sticky notes. Several other people are sitting on stools, looking towards the speaker. The scene is dimly lit with a blue tint.

What is Spring Boot?

Spring Boot

An *opinionated* view of building production-ready Spring applications. Spring Boot favors convention over configuration and is designed to get you up and running as quickly as possible.

```
package hello;
```

```
import org.springframework.boot.*;
import org.springframework.boot.autoconfigure.*;
import org.springframework.stereotype.*;
import org.springframework.web.bind.annotation.*;
```

```
@Controller
```

```
@EnableAutoConfiguration
```

```
public class SampleController {
```

```
    @RequestMapping("/")
```

```
    @ResponseBody
```

```
    String home() {
        return "Hello World!";
    }
```

```
    public static void main(String[] args) throws Exception {
        SpringApplication.run(SampleController.class, args);
    }
```

```
}
```

Spring Initializr

Spring Initializr provides an extensible API to generate quickstart projects. It provides a simple web UI to configure the project to generate and endpoints that you can use via plain HTTP.

SPRING INITIALIZR

bootstrap your application now

Generate a

Maven Project

with

Java

and Spring Boot

1.5.9

Project Metadata

Artifact coordinates

Group

com.example

Artifact

demo

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web, Security, JPA, Actuator, Devtools...

Selected Dependencies

Generate Project alt + ⌘

Don't know what to look for? Want more options? [Switch to the full version.](#)

start.spring.io is powered by [Spring Initializr](#) and [Pivotal Web Services](#)

Application Packaging

- Find
- Download
- Compile
- Pray

LIKELIHOOD YOU WILL GET CODE WORKING
BASED ON HOW YOU'RE SUPPOSED TO INSTALL IT:



Spring Packaging



Primary Execution

```
package hello;

import java.util.Arrays;
import org.springframework.boot.SpringApplication;

@SpringBootApplication
public class Application {

    public static void main(String[] args) {
        SpringApplication.run(Application.class, args);
    }
}
```

REST Controller

```
package hello;

import org.springframework.web.bind.annotation.RestController;
import org.springframework.web.bind.annotation.RequestMapping;

@RestController
public class HelloController {

    @RequestMapping("/")
    public String index() {
        return "Greetings from Spring Boot!";
    }

}
```

Unit Testing Controllers

```
@RunWith(SpringRunner.class)
@SpringBootTest
@AutoConfigureMockMvc
public class HelloControllerTest {

    @Autowired
    private MockMvc mvc;

    @Test
    public void getHello() throws Exception {
        mvc.perform(MockMvcRequestBuilders.get("/")
            .accept(MediaType.APPLICATION_JSON))
            .andExpect(status().isOk())
            .andExpect(content().string(equalTo("Greetings from Spring Boot!")));
    }
}
```

SESSION TWO

Questions?

SESSION TWO

Lab: Spring Boot