

DSD Lab 9: Spring MVC (max: 12p)

In this lab, create two Spring MVC projects in STS: File > New > Spring Legacy Project > Spring MVC Project

- **IMPORTANT:** In pom.xml under <properties>, change <org-springframework-version> to the latest version **4.3.4.RELEASE**.

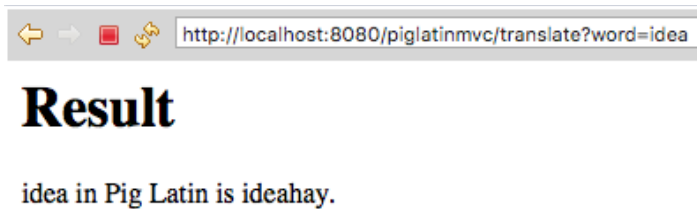
TASK 1: Pig Latin translator (5p)

Pig Latin is a language where you take an English word and:

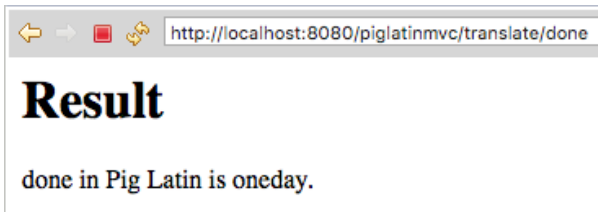
- if it starts with a consonant, move the first letter to the end and add “ay”. Example: "spring" >> "pringsay"
- if it starts with a vowel, add “hay” to the end. Example: "idea" >> "ideahay"

Write a Spring **MVC controller** that translates a word to Pig Latin **with three methods**:

- **GET request parameter:**



- **GET path variable:**



- **POST form parameter:**

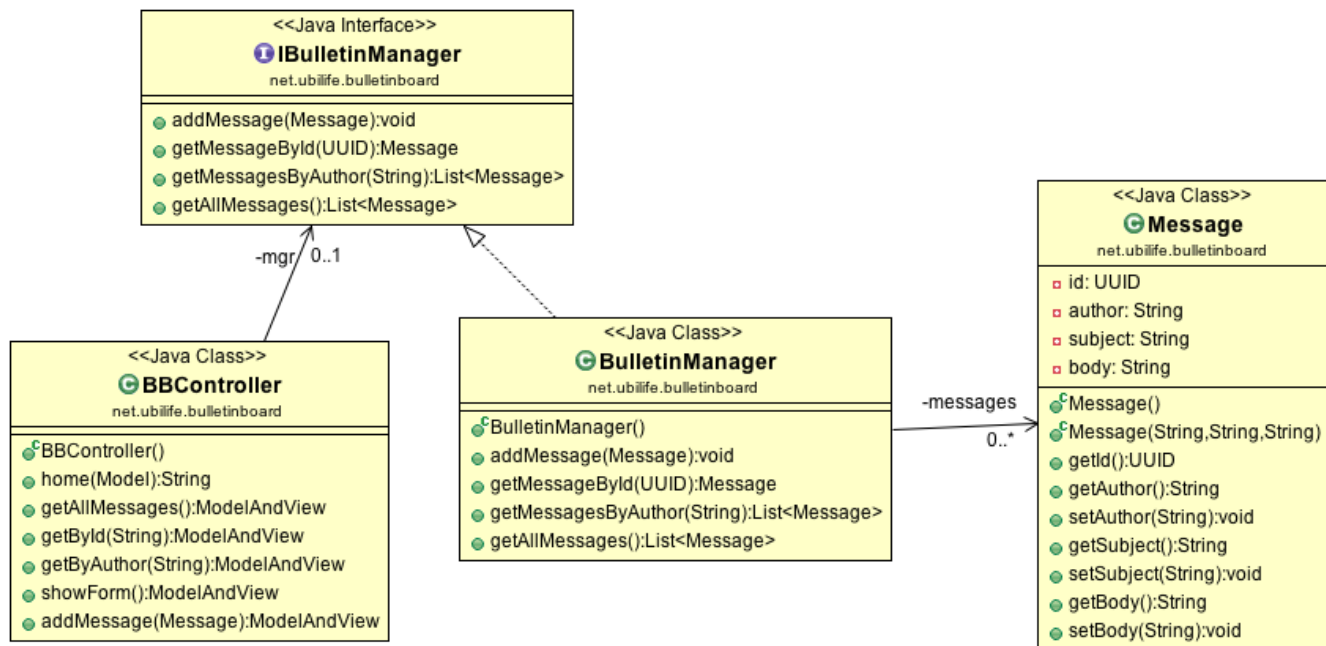


Use the Model (or ModelAndView) to pass BOTH the input word and the translated word to the view. For the "POST form parameter" method, you need to create a view with an HTML form.

You can assume that the input word is always a single word in lowercase and contains only English alphabets.

TASK 2: Bulletin board (7p)

Write a simple bulletin board web application with Spring MVC. The system has the following components:



Message is a POJO that contains data about a message posted on the bulletin board. Message ID is generated in the constructor. You can generate a UUID like this:

```
UUID newId = UUID.randomUUID();
```

IBulletinManager is an interface that is implemented by **BulletinManager** (`@Service`). **BulletinManager** holds a collection of `Message` objects.

BBController (`@Controller`) autowires **IBulletinManager** and provides at least the following endpoints:

Method	Endpoint URL	Purpose
GET	http://localhost:8080/bulletinboard/msg?id=[id]	Show a message with ID [id]. Use request parameter.
GET	http://localhost:8080/bulletinboard/msg/[author]	Show all messages written by [author]. Use Path variable.
GET	http://localhost:8080/bulletinboard/all	Show all messages.
POST	http://localhost:8080/bulletinboard/add	Add new message via an HTML form. Show the added message as result.
GET	http://localhost:8080/bulletinboard/add	Show an HTML form.

See examples on next page.

TIP: See the HelloMVC and MVCCalculator sample projects.

Add new message

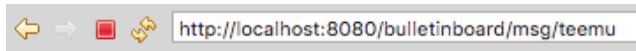
Author:

Subject:

Body:



A JSP page with an HTML form to post a new message.



Messages:

Id: e2ea935c-1aef-4fb5-b2f0-7a2e0d039525
Author: Teemu
Subject: Second
Body: Another message

Id: 0215fa7f-66ff-4f39-869f-465196a2d7ae
Author: Teemu
Subject: Hello
Body: First message



Show all messages posted by “teemu” (ignoring case). If you code smartly, you can reuse the same JSP page with all endpoints that show a message / messages as result.

TIP: Use the `<c:forEach>` tag of the JSTL tag library to iterate over a list of message objects. See `persons.jsp` in JSTLDemo project