AREP Lab 3

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1 Introduction

In this project we build a Web Server like Java Spark, this server support the method get with this you can build a API with a lambda function and we implement the static document devolution here read the files that are in the main/resources path

2 Meanings

- Maven: Is a build automation tool used primarily for Java projects.
- Java: Is a programming language that is class-based, object-oriented, and designed to have as few implementation dependencies as possible
- Web Server: Is server software, or hardware dedicated to running this software, that can satisfy client requests on the World Wide Web.
- Informatic Resource: are defined as the data and information used by an organization
- Heroku: Is a cloud platform as a service (PaaS) supporting several programming languages

[1]

3 Design

Here I present the class model diagram, this is a basic implementation of a Web Server inspired in Spark implemented by my person [See figure 1], this design is taked of the professor Luis Daniel Benavides

Here we have the web server separated in different classes, we have the component that connect a Server Socket to response the petitions, the MiSpark component that publish the API and return the static documents and the

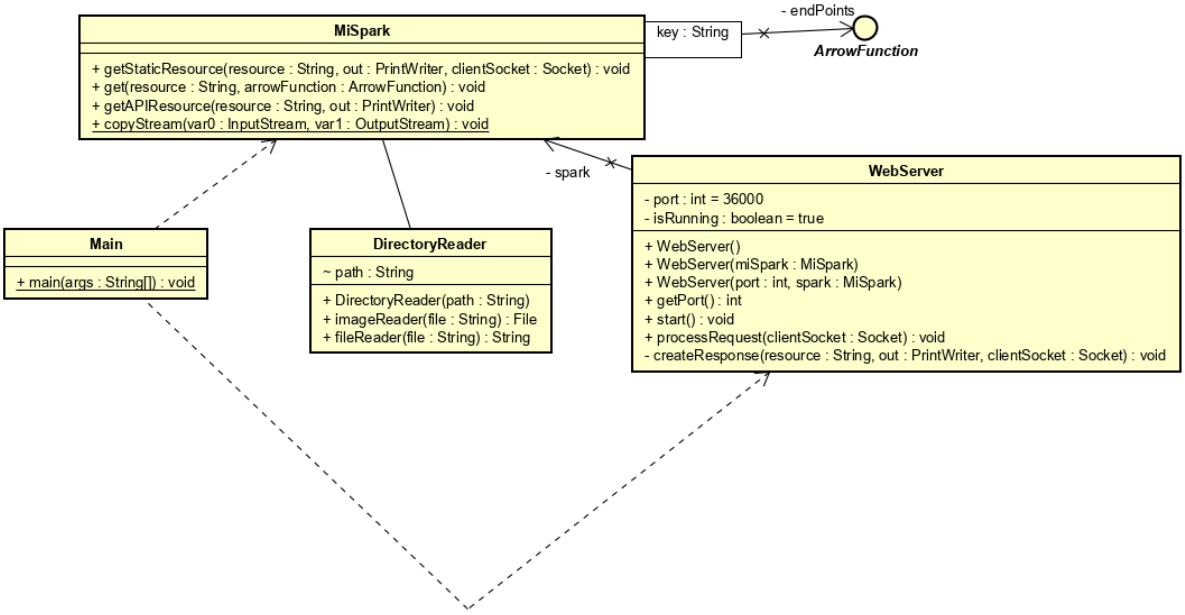

Figure 1: Class Model

FileReader that help us to read the static documents in the main/resources directory

All the components has a perfect join and all this function to deploy in the cloud in a solution PaaS

This code is deployed in Heroku and because this we can probe it in real time, this is part of the design because the Cloud Platform that we use has limitations, Heroku is free but has a very low resource limit.

We have a clear communication channel that is the Internet that is the form that we share this calculator you only need to use a Web Browser that works like an a interpreter of HTML, CSS and JavaScript that shows the GUI of the software but this is not all in Backend we have Java Machine that is interpreting the Java files to run a web server with Maven, this give a possibility to offer all the API's that you want you only need to call the MiSpark method get in the main and put the name of the endpoint(/endpoint) and the lambda function that you need to inject.

4 Execution

4.1 Code

To run the server you need to follow the next instructions

- git clone https://github.com/orlandoagk/areplab3.git
- cd areplab3
- mvn compile
- mvn clean package
- java -cp target\areplab3ServidorWeb-1.0-SNAPSHOT.jar edu.escuelaing.arep.Main
- Enter to localhost with the port 36000 (If you dont have environment variable called PORT, if you have it you need to use the PORT that you have there)

4.2 Code (Deployed in Heroku)

- Enter the url thats is the app deployed in Heroku Calculator in Heroku

4.3 Test

- mvn test

5 Conclusion

We implement the first web server only using Maven and Java, to the deployment in the cloud we use Heroku. We know how to a server response to the people petitions using a Spark based architecture to show the static documents and offer API's

References

[1] *Wikipedia.*