

BackBase

Kalah Game Implementation

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Technology Used

I have designed and implemented Kalah game with the following technologies and frameworks:

- Spring Boot
- Java 1.7
- JSP
- JSTL
- jQuery
- Semantic UI
- Maven

How to run

The default port of the project is 9090 which I have configured in **application.properties** file beside other configuration as you can see as below:

```
server.port=9090
spring.mvc.view.prefix=/WEB-INF/jsp/
spring.mvc.view.suffix=.jsp
header.message=Kalah Game
```

You can change the default port which I have set as you wish or if any conflict with another port occurred.

After building and deploying the application you can access it in your preferred browser by opening the following link:

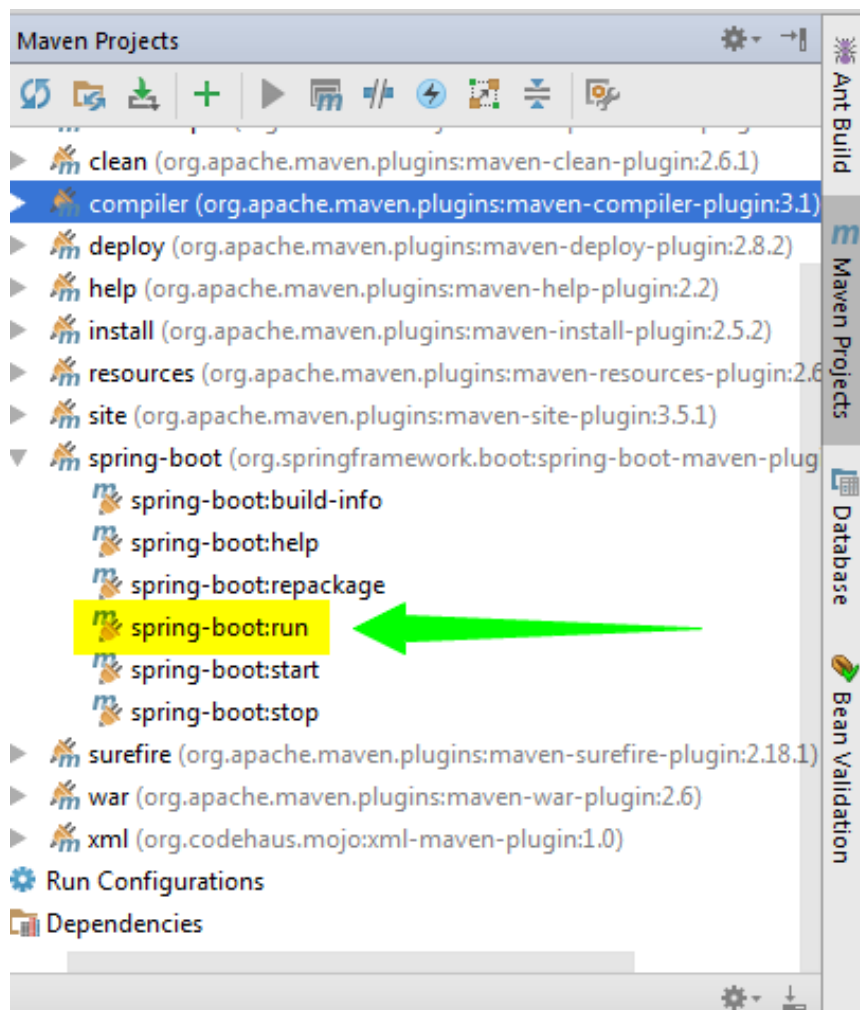
<http://localhost:9090/>

Note: 9090 is the default port so if you changed the default port you should change also the above link respectively.

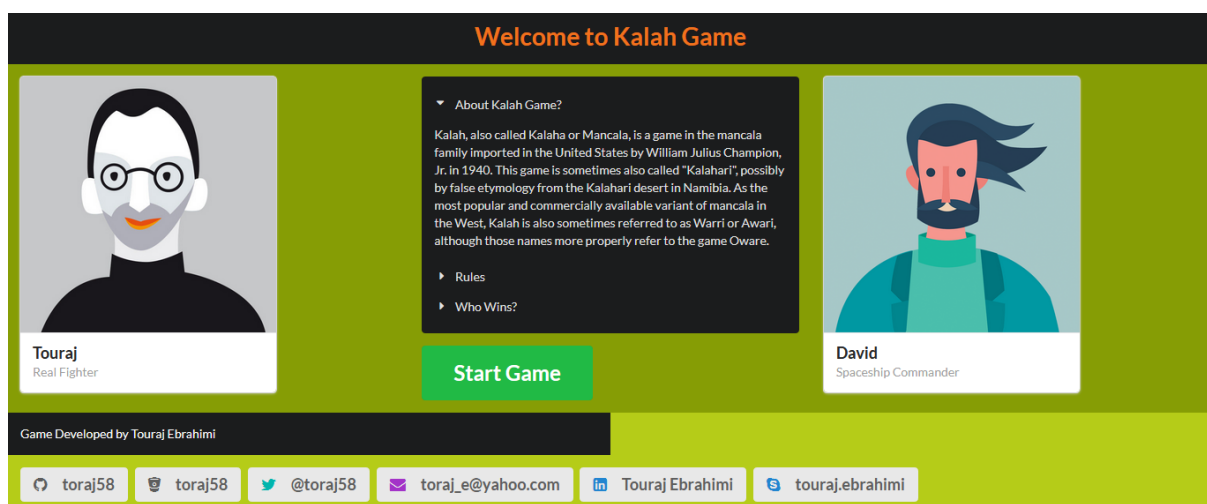
You can build it with maven and deploying to your desired web server or application server like tomcat, jBoss, web logic etc. or you can directly run it in intellij using following command in the intellij's terminal:

```
$ mvn spring-boot:run
```

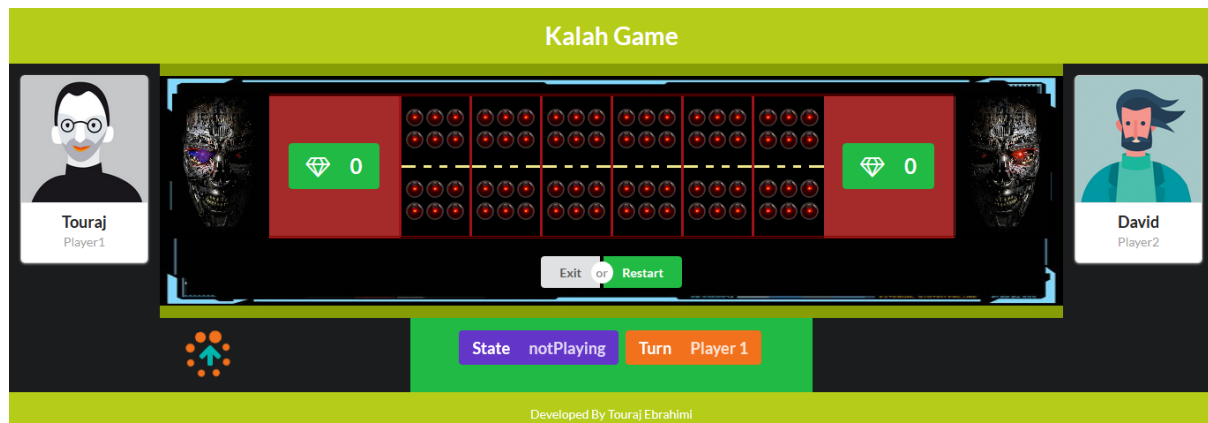
Another way for running the Kalah web application is like the following picture in IntelliJ:



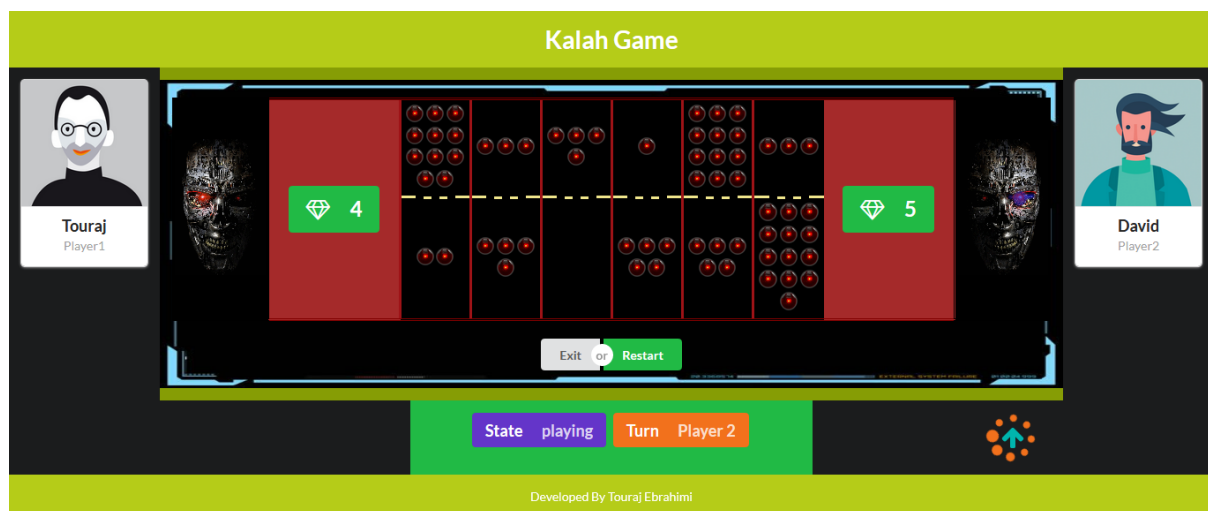
After Running the Application you should see something like the Following Pictures in your browser and if everything gone properly then you can play the game.



Press Start game button in order to play the game; after starting the game you should see something like the following picture:



Following picture is related to the game after some movements:



You can also restart the game and playing it from the first again or you can Exit the game.

After exiting the game you will return to the main page of the site (index) and you can either decide to play again or totally quit.

Note: the left picture is Player 1 that his pits are located at the bottom of the board and playing from left to right.

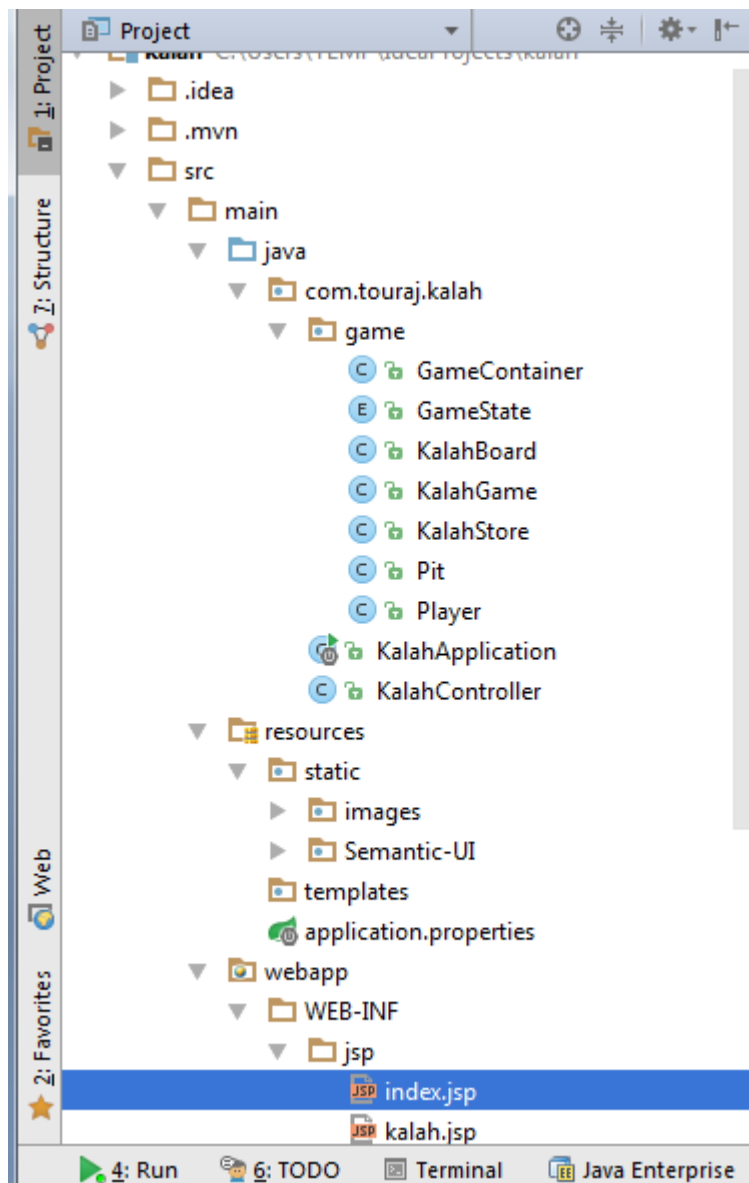
Note: the right picture is the player 2 and his pits are on the above of the board that like player 1 play counter clock-wise.

Note: Right Diamond is the Kalah (House or Store) of the Player1 and Left one is for Player 2. Stones will be cumulated in kalah (as diamond shape).

I have designed and coded this game that when that's not the turn for a special player so he cannot click on his pits and should wait till opposite player's turn finished.

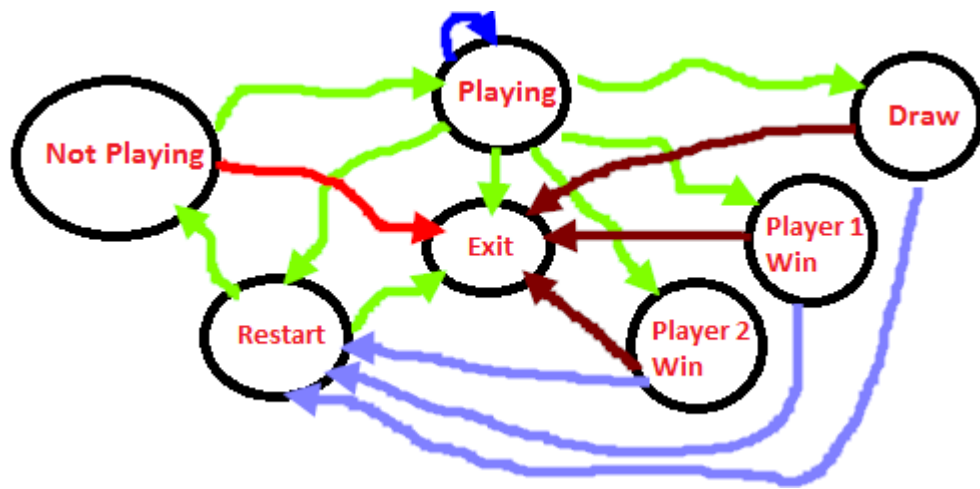
Project Structure

Project structure is like the following picture:

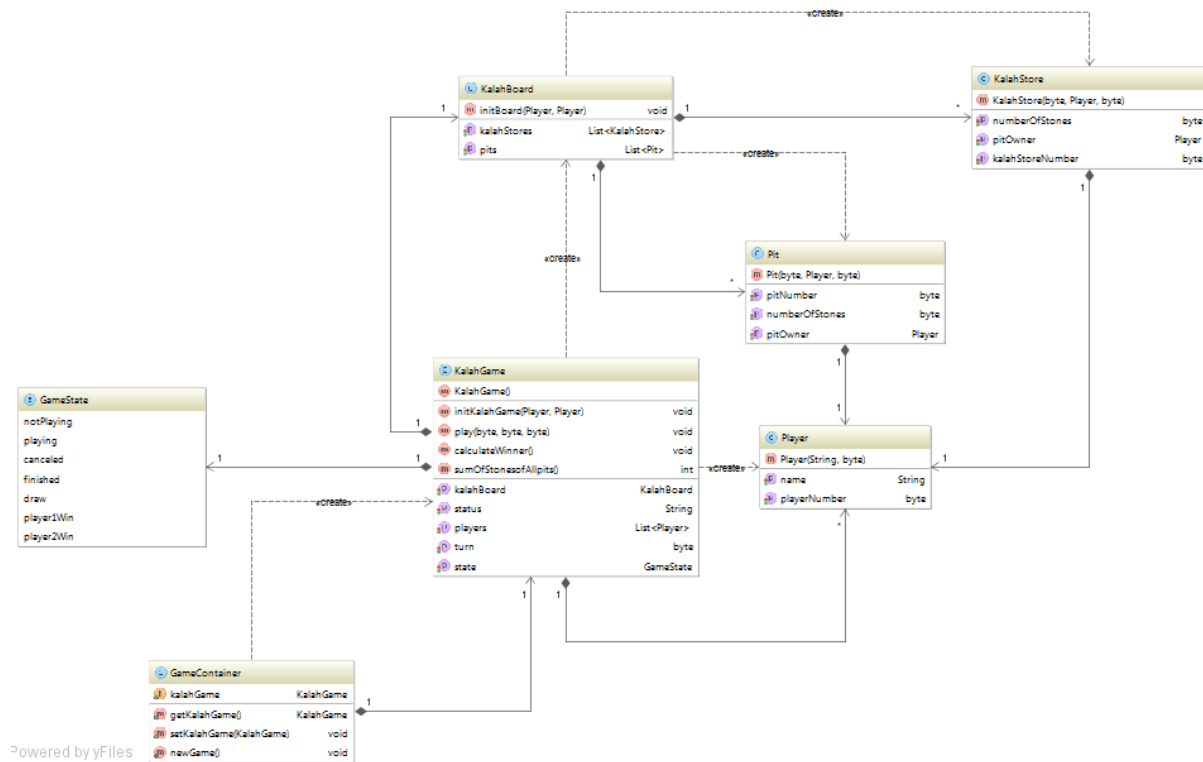


State Machine

Following is the state machine of the program:



Class Diagram



Package Kalah Diagram

