# **Project Documentation**

## **SOEN 6441 (Advance Programming Practices)**

**Project: Lanterns: The Harvest Festival** 

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GitHub - https://github.com/gugagreen/6441-summer-2015

The project Lanterns The Harvest Festival is basically a game played with different combination of playing cards and favour tokens. The players of this game act here as artisans decorating the palace lake with floating lanterns. At the end of the festival which is the end of the game that player who earns the most honour wins the game.

By developing the game we have used several kinds of tools and java (jdk 1.8). We made a service package which contains all the relevant game actions such as setup game, load file and save game. Furthermore we made another package where all the entities exist such as lanterns cards, player id. This allows us to have simple entity classes and concentrate on the logic in the services package.

Here are the following tools and libraries -

#### Eclipse:

All of our development was done in the eclipse IDE using the java programming language. All team members used the default eclipse style guide for the development of this project.

#### GitHub:

Our project is developed by using the Git distributed revision control. Our project is hosted in a GitHub repository.

#### JUnit:

Our project uses JUnit 4.12 as an automated test framework to develop our unit tests. JUnit is part of the Eclipse Java Development Tools in the Eclipse IDE.

### Apache Maven:

We used Apache Maven to manage our project builds. This tool is integrated in the Eclipse IDE for Java EE Developers and allows us to manage the dependencies of any external modules we might want to use. This makes it easy for any developer to update their local copy to match the GitHub repository.

#### JAXB:

Java Architecture for XML Binding (JAXB) is used in our project to map Java classes to XML. In build 1, this is used to marshal Java objects into XML to generate our save files. The reverse process is used to open previously saved files. JAXB is part of the Java Standard Edition (SE) platform.

#### Slick2D:

We are using Slick2D to graphically display the state of our game. Slick2D is a set of tools to make 2D Java games using the Lightweight Java Game Library (LWJGL). The LWJGL is an open source Java library for Java game development.