

Development Manual

Hnefatafl is a family of 2-player Viking board games, where one player tries to guide a King to a refugee square, while attackers try to prevent this. Right now, we're implementing the popular 11x11 variant.

To develop this game, we need to follow the following steps:

STEP 1: Download the JDK

The first thing we need to do is prepare our PC to develop the game using **Java**.

Install a software package called the **Java Development Kit (JDK)**, which allows us to develop in Java.

STEP 2: Set Up a Development Environment

If you downloaded the JDK with the NetBeans IDE, start NetBeans, and begin programming.

You can also program using a simple text editor, and compile and run from the command line. Many text editors now come with the ability to run and compile Java files, but you may need to tell the program where `javac.exe` and `java.exe` reside on your computer. Once, your IDE or text editor is set up, you can begin programming.

STEP 3: Application

1. Use IntelliJ IDEA software to clone code from Github <https://github.com/JacindaQiong/cs414-fa19-001-Party-A> Project name: PartyA Database name: SQL
2. Opening the Navicat of MySQL, add the game_invitation.sql, game_user.sql and game_match.sql into that application
3. Compile the login.java application with the java command and run it with the java command.

To run the tests:

1. Eclipse provides a couple of ways to run individual test methods, one from within the editor itself and another from the JUnit view.
2. For example, this is a simple code to run the testcases: `public class SomeTest`

```
{ @Test  
  
public void testMethod1() {...}  
  
@Test  
  
public void testMethod2() {...} }
```

4. Add a testing logic (3 A's)

Arrange: consists of a few lines of code that are used to declare and initialize the objects we need in our test.

Act: is usually a few lines of code where we perform the actions, whether it is some calculation or modify the state of our objects.

Assert: usually consists of a single line of code where we verify that the outcome of the **Act** part was made successfully.

Testing improves the quality of the code and it makes the development process more Agile.

Database configuration:

JDK 1.8

Tomcat 9

MySQL 8.0.18

Navicat Premium 12.1.27