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 and test this game, please follow the steps below:
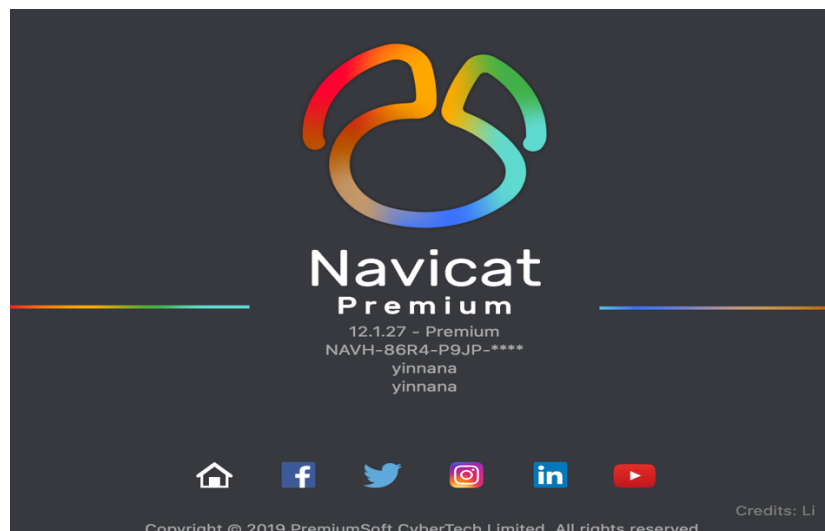
I. Configure Development Environment

1) Download and install the **JDK 1.8.0_221**

```
[Nanas-MacBook-Pro:cs414-fa19-001-Party-A nanayin$ java -version
java version "1.8.0_221"
Java(TM) SE Runtime Environment (build 1.8.0_221-b11)
Java HotSpot(TM) 64-Bit Server VM (build 25.221-b11, mixed mode)
Nanas-MacBook-Pro:cs414-fa19-001-Party-A nanayin$
```

2) Download and install the database **MYSQL 8.0.18**

```
[mysql> select version();
+-----------+
| version() |
+-----------+
| 8.0.18    |
+-----------+
1 row in set (0.00 sec)
```
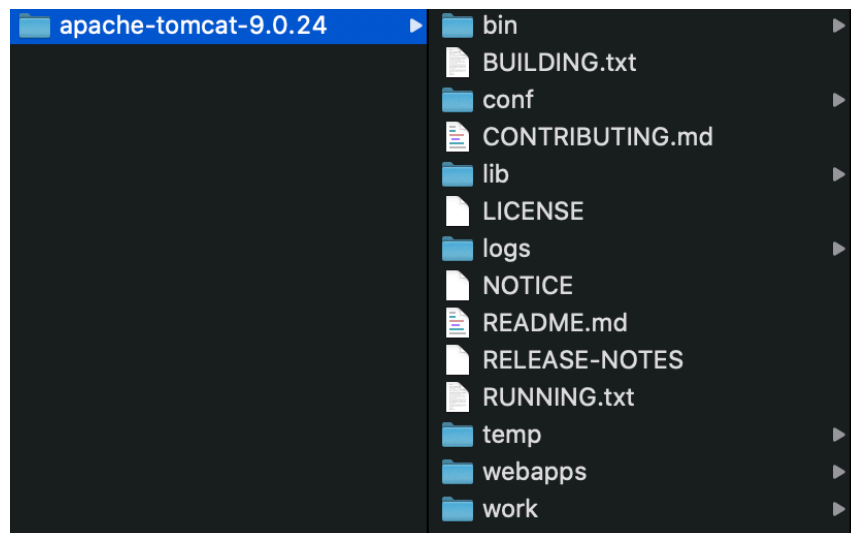
3) Download and install the **Navicat Premium 12.1.27**

Navicat
Premium
12.1.27 – Premium
NAVH-86R4-P9JP-****
yinnana
yinnana

Credits: Li
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4) Download and install the **IntelliJ IDE 2019.2.1**

5) Download the apache-tomcat-9.0.24 package

II. Download the source code from Github

https://github.com/JacindaQiong/cs414-fa19-001-Party-A/tree/master/PartyA

III. Configure and Deploy the project

IV. Test the whole process

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_invitaion.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: **publicclass**SomeTest

```
{ @Test

publicvoidtestMethod1() {...} @Test
publicvoidtestMethod2() {...} } 4.Add a testing logic (3 A's)
```
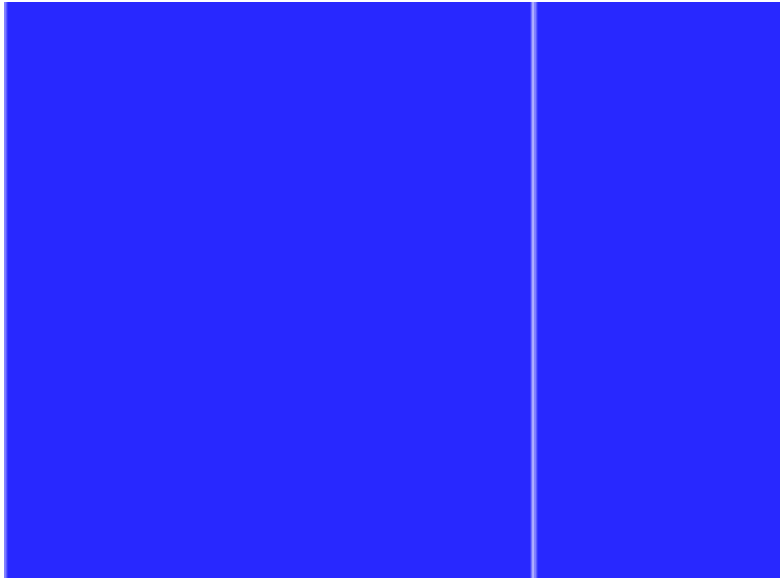
Arrange: consists of a few lines of code that are used to declare and initialize the objects we need in our test.

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.