

# COMP3211 Developer Manual

## GROUP INFORMATION

**Group number:** 13

**Group members:**

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## DEVELOPMENT ENVIRONMENT

**Platform:** macOS

**JDK Version:** Java 17

**IDE:** IntelliJ IDEA 2023.2.4

**Build Tool:** Maven (3.8.0 or higher)

**Testing Framework:** JUnit 5

## RUNTIME REQUIREMENTS

**Operating System:** Windows, macOS, or Linux

**Java Version:** Java 8 (1.8) or higher

**Environment variables:**

```
# Required Java environment variables
JAVA_HOME=/Library/Java/JavaVirtualMachines/jdk-17.jdk/Contents/Home
PATH=$PATH:$JAVA_HOME/bin
```

## PROJECT SETUP

### Opening the Project

1. Clone the repository:

```
git clone [repository-url]
cd [project-directory]
```


2. Open the project in IntelliJ IDEA:
  - a. Go to File > Open
  - b. Navigate to the project directory
  - c. Select pom.xml and open as project

### Project Structure

```
src/
├── main/
│   ├── java/
│   │   └── mono/
│   │       ├── MonopolyGame.java    # Main game implementation
│   │       └── [other game classes]
└── test/
    ├── java/
    │   └── mono/
    │       └── MonopolyGameTest.java # Test cases
```

### Building and Running

#### Option 1: Running in IntelliJ IDEA (Recommended)

1. Open MonopolyGame.java in IntelliJ IDEA
2. Click the green play button () next to the main method OR Right-click anywhere in the file and select 'Run MonopolyGame.main()'



## Option 2: Running from Command Line

1. First build the project:

```
mvn clean package
```

2. Run the game

```
java -cp target/classes mono.MonopolyGame
```

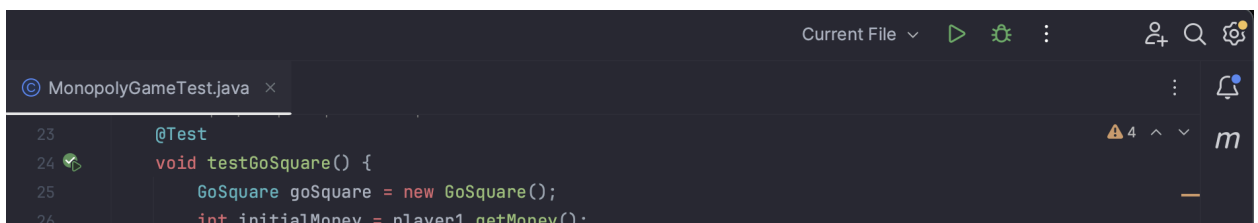
## Running tests

### Option 1: Running Tests in IntelliJ IDEA (Recommended)

1. Open the test file (MonopolyGameTest.java)
2. To run a single test: Click the green play button (▶) next to individual test methods



3. To run all tests: Click the green play button (▶) next to the test class name OR Right-click on the 'test' folder and select 'Run All Tests'



### Option 2: Running Tests from Command Line

1. Run all tests

```
mvn test
```

2. Run specific test class:

```
mvn test -Dtest=MonopolyGameTest
```

## DEBUGGING

### Using IntelliJ IDEA Debugger

1. Set breakpoints by clicking in the left gutter of the editor
2. Run the game in debug mode:
  - a. Right-click MonopolyGame.java
  - b. Select Debug 'MonopolyGame.main()'

### Debug Logging

To enable debug logging, add the following VM option:

```
java -Ddebug=true -cp target/classes mono.MonopolyGame
```