

## **Boggle User Guide**

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### **Description:**

The purpose of this program is to allow the user to play a fully electronic game of Boggle. This includes, keeping track of scores and other features in a game of boggle like a "Shuffle" option. Boggle is a timed word game wherein a user attempts to maximize their score by creating as many words as possible out of a four by four grid of letters. Each word entered must have not been entered before and be an English word of three or more characters. Also, all pairs of adjacent letters in the word must be adjacent (touching, diagonal counts) on the grid.

### **How to Install and Run:**

1. This Boggle program is downloaded in the form of a zipped file. The contents should be saved and extracted through right-clicking on the folder and clicking "Extract All".
2. NetBeans 8.0.2 is required to run this program and can be found at the following link: <http://www.oracle.com/technetwork/java/javase/community/jdk-7-netbeans-download-432126.html> . The appropriate file should be downloaded based on your device's processor and operating system.

Oracle Technology Network > Java > Java SE > Community

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### JDK 7u80 with NetBeans 8.0.2

This distribution of the JDK includes the Java SE bundle of NetBeans IDE, which is a powerful integrated development environment for developing applications on the Java platform. [Learn more](#)

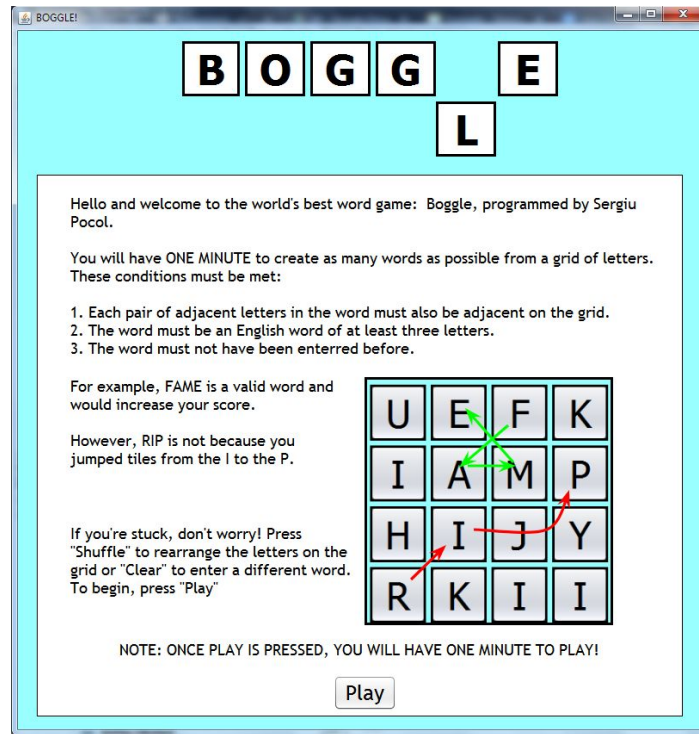
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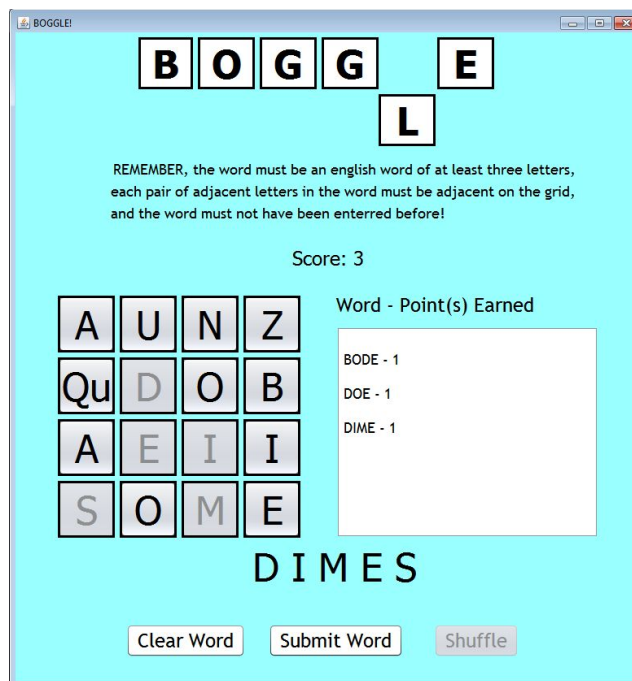
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- Java SE 7 Readme
- Java SE 7 3rd Party Readme
- NB 8.0.2 3rd Party Readme
- Installation Instructions
- Java SE Release Notes

3. Once the NetBeans IDE is fully install and ready for use, under File, click “Open Project” and select “BoggleSergiu” then click “Open”.
4. Right-click on BoggleSergiu (next to the coffee icon) under the “Projects” tab and click “Run”.
5. A menu window will open.



Read the instructions and look at the example cases, then click the “Play” button.

6. You will be taken to the following window and will have one minute to play:



To start creating words, click on the letters in the order they appear in the word. To submit the word press "Submit Word", to enter a different word, press "Clear Word". If you are stuck, you can rearrange the letters on the grid by pressing "Shuffle". You can not press shuffle while typing a word because that would allow a player to cheat.

7. After a minute has passed, you will automatically be taken to the "Time's Up!" window. There you can view, the score you just earned, your past scores (if you've played more than one game) and your highscore. To play again, press the "Play Again" button.



### Special/Key Features:

A key feature of this program is that the game is timed. After one minute, all buttons are disabled and the game over screen is displayed. Also, this game keeps track of your past scores and will display your highscore through reading and writing to text files. In addition, this game randomly assigns each button a letter from a biased alphabet which includes a double count of each vowel. This is to ensure the player is able to create more words.

In the actual game many features were created for the convenience of the player. For example, the clear button allows the user to quickly reattempt creating a word (if they accidentally clicked in the wrong order, for example) without having to press submit. Furthermore, the shuffle button rearranges the words already present on the grid in order to allow for more word combinations. A key feature of this program is that the user cannot cheat by pressing shuffle

whilst creating a word since the shuffle button becomes disabled as soon as the first letter is pressed. Arguably the most notable feature is that after a letter is pressed, its corresponding button is disabled to notify the player that the letter may not be reused.

A prominent feature of this product is that the player will be awarded more points based on the length of the attempted word. This is accomplished through a switch case selection structure.

Also, in the Score class, selection structures are used to ensure that the past score(s) information is displayed when appropriate (not after the first game) and is grammatically correct. Furthermore, the play again button allows the user to re attempt the game without having to run the program again and pass through the Menu class.

Finally, this program uses a very comprehensive list of English words to check if an entered word is valid. This txt file contains more 466,000 lines! This ensures that any valid word the user enters will not incorrectly be rejected.