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| **Application/ Program name:** | RandomGuess |
| **Written by:** | Zachary Muerle |

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| **Purpose or problem definition:** |
| “you can copy the following statement to generate and use a dialog box that  displays a random number between 1 and 10:  JOptionPane.showMessageDialog(null,"The number is " +  (1 + (int)(Math.random() \* 10)));  Write a Java application that displays two dialog boxes in sequence. The first asks you  to think of a number between 1 and 10. The second displays a randomly generated  number; the user can see whether his or her guess was accurate. (In future chapters  you will improve this game so that the user can enter a guess and the program can  determine whether the user was correct. If you wish, you also can tell the user how  far off the guess was, whether the guess was high or low, and provide a specific  number of repeat attempts.) Save the file as RandomGuess.java.” |
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| **Program Procedures:** |
| While the input isn’t complete: open an input dialog for a user to enter a string  Cast this string into a short (if this fails, ask for a new string)  Check if the short is between 1 and 10, inclusive. If it is: continue. If not: go back  Generate a random number between 1 and 10  Compare the random value and the user’s value. If they’re the same, say so. If not: tell them their value and the random value, and how far off they were |
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| **Algorithm/Processing/Conditions:** |
| **Inputs: chosenNumber** |
| Must be cast-able to a short, and be between 1 and 10 |
| **Processes: randNumber** |
| **(short) (1 + (Math.random() \* 10))** |
| **Outputs: Message** |
| Tells the user information about how close their guess was to the random number |
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| **Notes & Restriction:** |
| The random value can only be between 1 and 10, so we restrict the user’s inputs to the same range |
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| **Comments:** |
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