**ACTIVITY 2 - Step-by-Step Solution**

Number Guessing Game

1. Create a blank process and from the Design tab, in the File group, select New > Flowchart. The New Flowchart window is displayed.
2. In the Name field type a name for the automation, such as "First Flowchart", and leave the default project location or add a subfolder. Click Create. The Designer panel is updated accordingly.
3. Create two Int32 variables (RandomNumber, GuessNumber) and a String one (Message).
4. Set the default value of the Message variable to "Guess a number from 1 to 999." The RandomNumber stores a random number between 1 and 999, GuessNumber stores the user’s guess and Message stores the message that is going to be displayed to prompt the user.
5. Add an Assign activity to the Designer panel, and connect it to the Start node.
6. In the Properties panel, in the To field add the RandomNumber variable.
7. In the Value field, type new Random().Next(1,999).
8. Add an Input Dialog activity to the Designer panel and connect it to the Assign one.
9. In the Properties panel, in the Label field, add the Message variable.
10. In the Result field, add the GuessNumber variable. This activity asks and stores the user’s guesses in the GuessNumber variable.
11. Add a Flow Decision activity and connect it to the Input Dialog. This activity enables you to tell the user if he correctly guessed the number or not.
12. In the Properties panel, in the Condition field, type GuessNumber = RandomNumber. This enables you to verify if the number added by the user is the same as the randomly-generated one.
13. Add a Message Box activity and connect it to the True branch of the Flow Decision.
14. In the Properties panel, in the Text field, type "Congratulations! You guessed correctly! The number was " + RandomNumber.ToString + ".". This is the message that is going to be displayed if the user correctly guessed the number.
15. Add a new Flow Decision activity and connect it to the False branch of the previously added Flow Decision.
16. In the Properties panel, in the Condition field, type GuessNumber > RandomNumber. This activity enables you to check if the number the user added is bigger than the randomly-generated one.
17. In the DisplayName field, type Comparison. This enables you to easily to tell the difference between the two Flow Decisions used.
18. Add an Assign activity and connect it to the True branch of the Comparison activity.
19. In the To field, type the Message variable, and in the Value field, type a message indicating that the guess was too high, such as "Too big. Try again.".
20. Select the Assign activity and press Ctrl+C. The entire activity and its properties are copied to the Clipboard.
21. Press Ctrl + V. A duplicate of the previous Assign activity is displayed.
22. Connect it to the False branch of the Comparison activity and, in the Properties panel, in the Value field, type "Too small. Try again.".
23. Connect the Assign activities created at steps 18-22 to the Input Dialog. A loop is created, asking the user to type a smaller or bigger number, until he guesses correctly.