

## ASSIGNMENT 1

Build a user-friendly flowchart for the following algorithm (steps should be in this order and messages should be exact/as requested):

1. Output a message "Hello! My name is NAME", replace NAME with the programmer's name.
2. Output a message asking the user for their name "What is your name?" .
3. Input a value from the user into a variable called `UserName` .
4. Output a message greeting the user "Hello `UserName`!" replace `UserName` with the value from the variable `UserName`. This is going to require 2 steps/boxes.
5. Output a message asking the user for their favorite number "What is your favorite number?".
6. Input a value from the user into variable `Number` .
7. Compute the area of the square with the side `Number` and store it into a variable called `AreaSquare` .
8. Compute the area of the rectangle with the width `Number` and length  $2 * \text{Number}$  and store it into a variable called `AreaRectangle` .
9. Compute the area of the circle with the radius `Number` and store it into a variable called `AreaCircle` .
10. Output messages for "I have used your favorite number in some geometric formula. Did you know that the area of the square with side `Number` is `AreaSquare` and the area of the circle with the radius `Number` is `AreaCircle` and the area of the rectangle with the width `Number` and length  $2 * \text{Number}$  is `AreaRectangle`? ", replace the variable name with the actual variable values<sup>1</sup> and do not forget that you cannot do calculations in an output box or use "+" to add numbers and strings, so, this is going to require quite a few steps/boxes.

Create a Microsoft Word document called **YourName-Assingment1.docx** (replace **YourName** with your name) that contains the flowchart (use Shapes or SmartArt to draw it) and add your comments (formulas you used, decisions you made, explanations, etc.) in flowchart comment dotted boxes or at the beginning of the document before the flowchart.

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