
A decorative graphic in the top-left corner featuring a network of interconnected nodes and lines. Some nodes are highlighted with blue circles or dots.

UIPath - Mastermind

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A decorative graphic in the bottom-right corner, similar to the one in the top-left, showing a network of nodes and lines with some blue highlights.

Variables used

Variable	Variable Type	Scope	Default value	Remarks
RandomNumber	Int32	FlowChart	-	Number randomly generated but the robot
GuessNumber	String	FlowChart	-	Guessed number input by user
count	Int32	FlowChart	10	Keeping track the number of tries the user can guess
P	Int32	Calculate	-	# of correct number, correct position
N	Int32	Calculate	-	# of correct number, wrong position

Variables used

Variable	Variable Type	Scope	Default value	Remarks
RandomNumberArray	Char[]	Calculate	-	{RandomNumber digit 0, RandomNumber digit 1, ...}
GuessNumberArray	Char[]	Calculate	-	{GuessNumber digit 0, GuessNumber digit 1, ...}
i	Int32	FlowChart	0	Keeping track the digit of GuessNumber

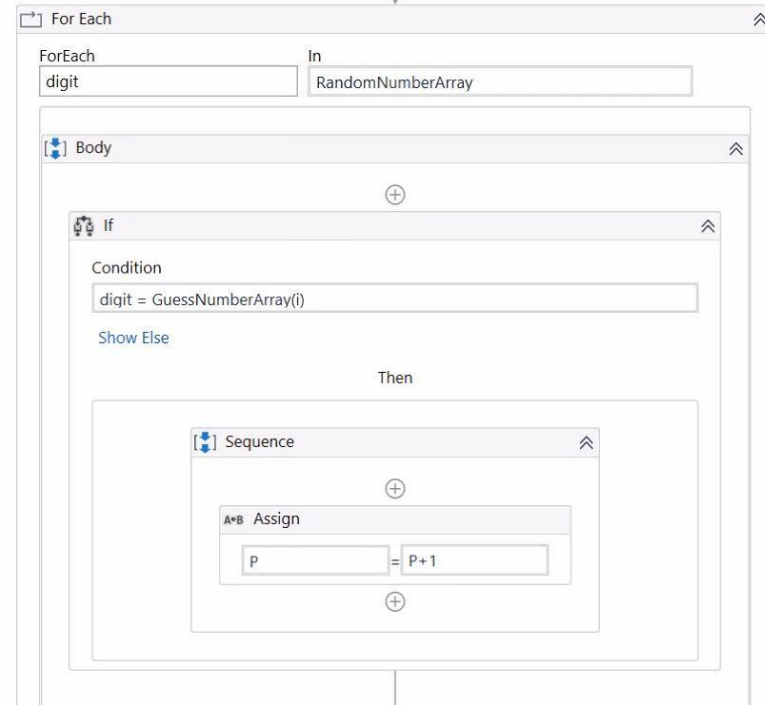
Concept



1. Guess value is checked if its a 4 digit number.
2. While $\text{count} > 0$, the count will decrement with every guess.
3. The guess will either be correct, else P & N values will be calculated.
4. Break will occur when
 - a. Number is not 4 digit number
 - b. After GuessNumber is correctly guessed
 - c. After 10 incorrect guess tries

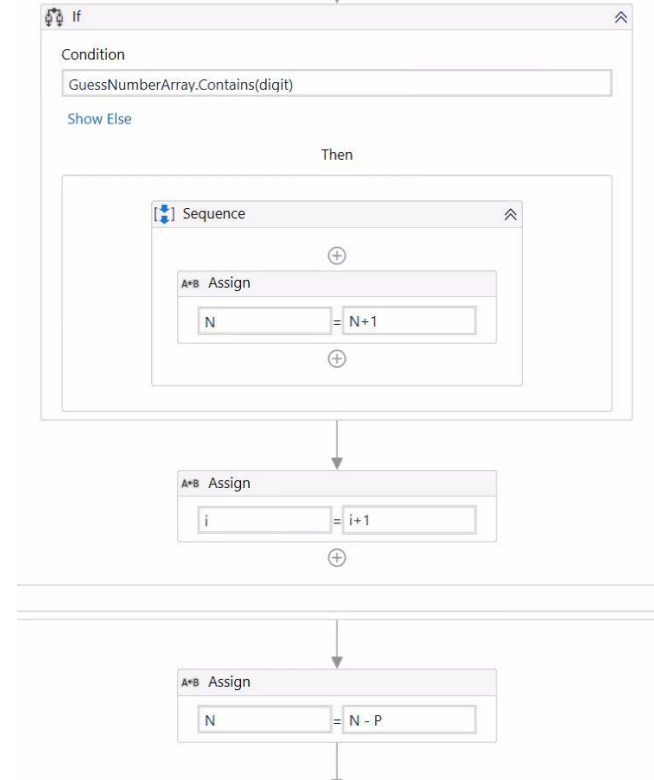
Calculating P & N

- For loop to check whether the GuessNumber digit corresponds to the RandomNumber digit , if so P++
- Variable i keeps track of GuessNumber's index, which is incremented during each for loop, together with digit



Calculating P & N

- If it is not in the correct position, we check if the digit exist in GuessNumber, if it does $N++$.
- We must note that N will calculate the correct position before, hence we must minus with P value outside of the for loop.





Thank you!

Difficulty

My main difficulty was trying to calculate P and N. However I managed to find some references and help online.

In general, I had fun trying out this new software and I realised how much more it can do.

