

Flowchart 1: extract individual digits from a single integer and put each digit in a list

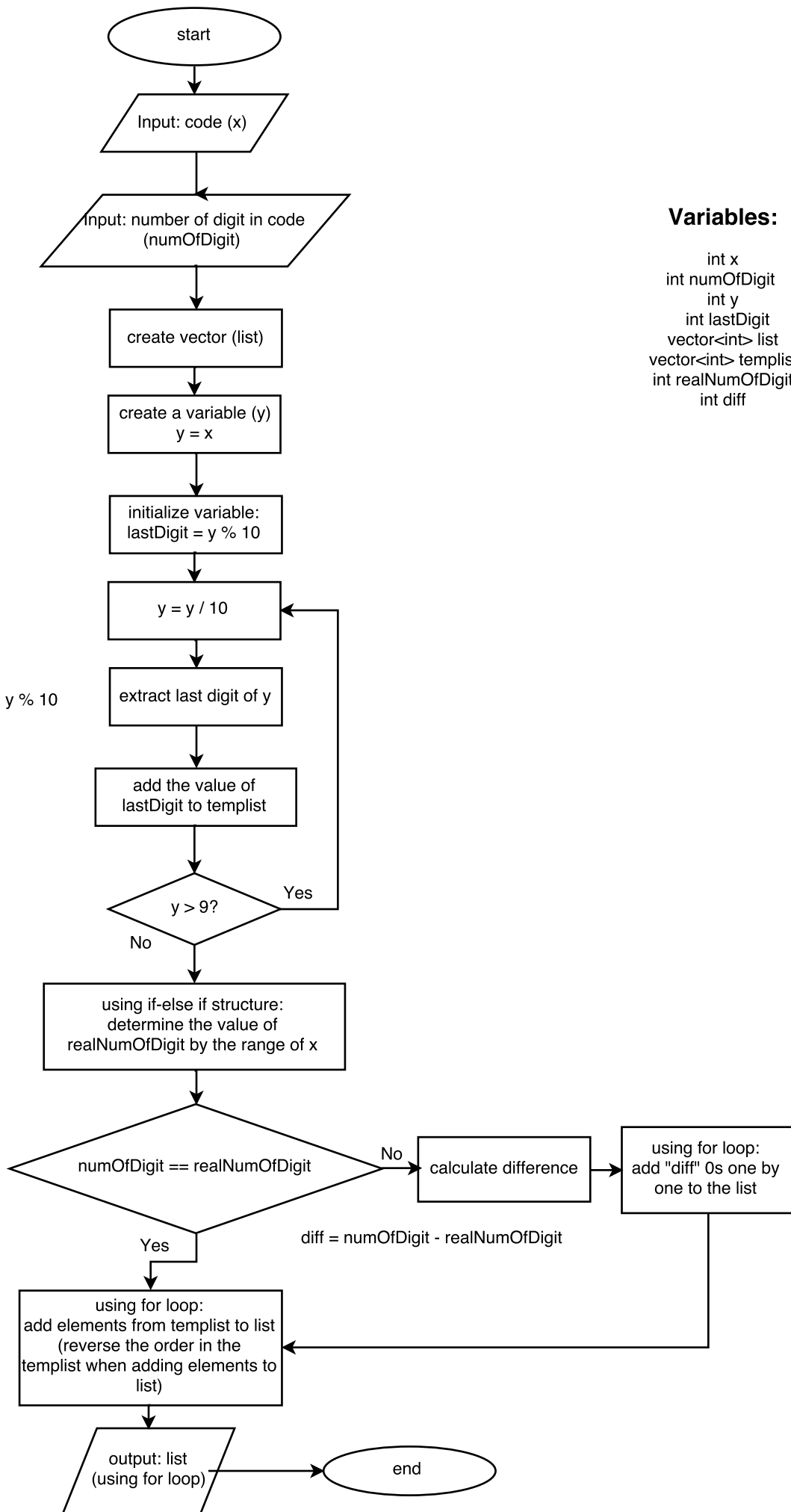
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Assume user input  
numOfDigit = 0

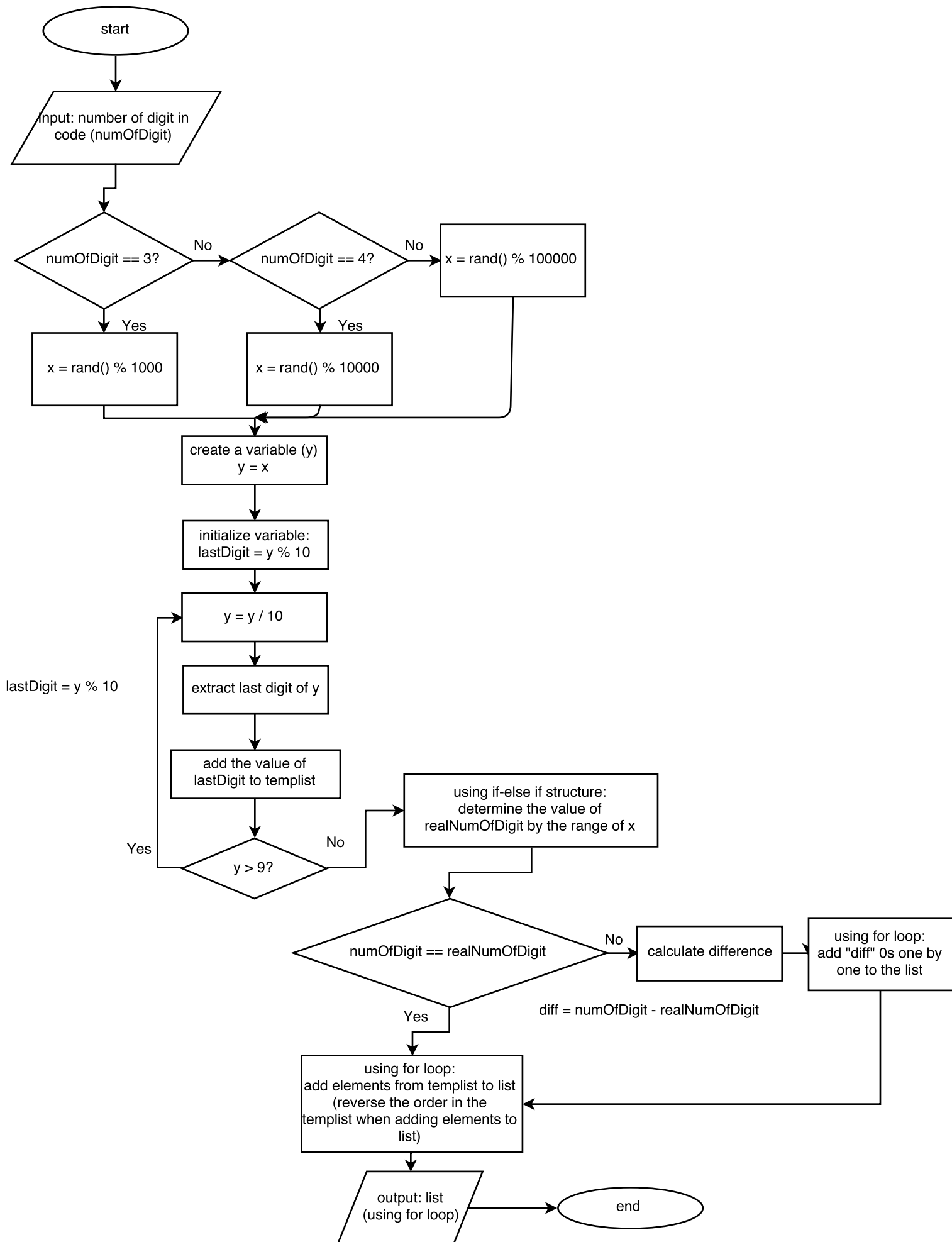
**Variables:**

int x  
int numOfDigit  
int y  
int lastDigit  
vector<int> list  
vector<int> templist  
int realNumOfDigit  
int diff

lastDigit = y % 10

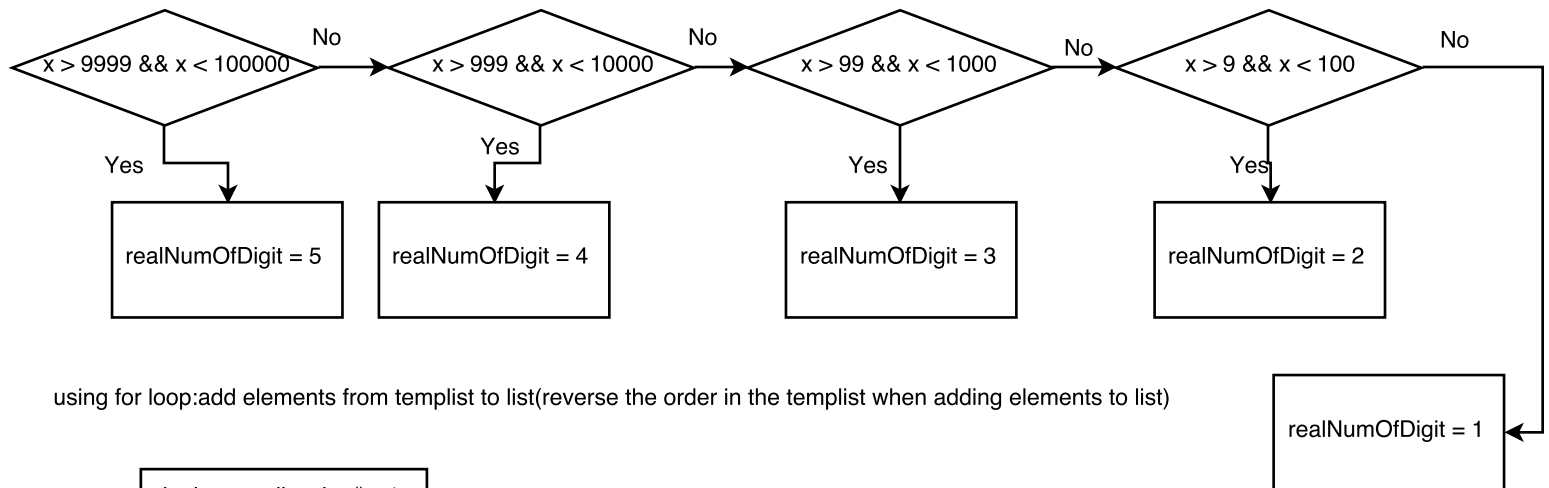


Flowchart 2: create a random code and place the code in a list

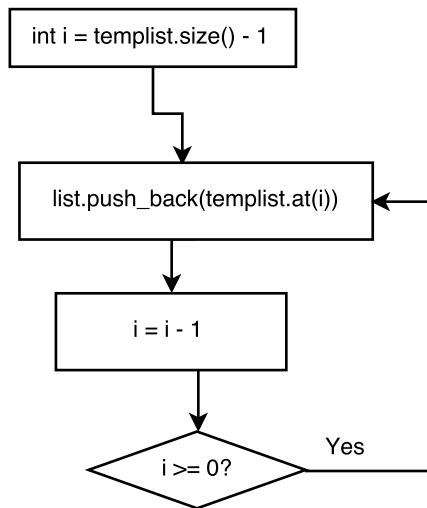


## Appendix

using if-else if structure: determine the value of realNumOfDigit by the range of x



using for loop:add elements from templist to list(reverse the order in the templist when adding elements to list)



using for loop:add "diff" 0s one by one to the list

