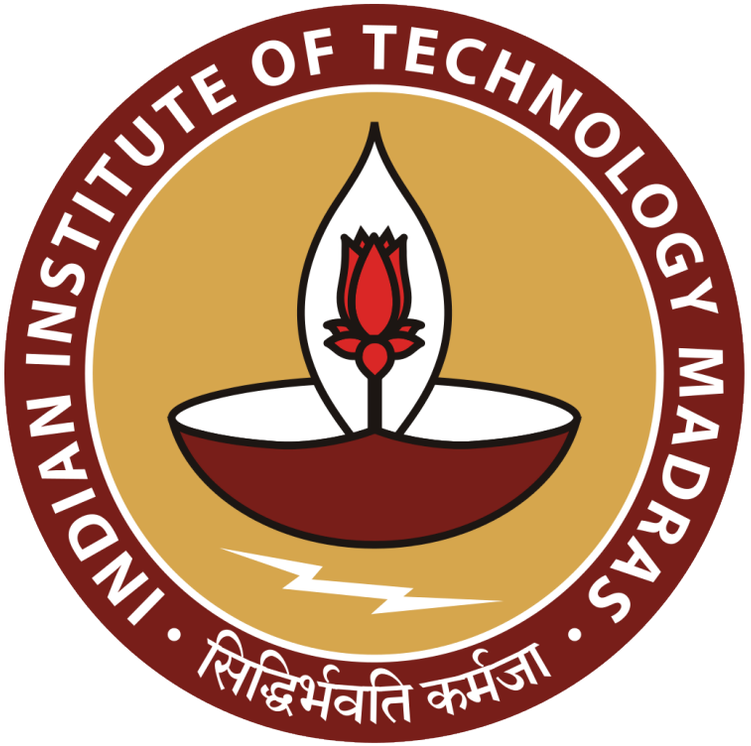


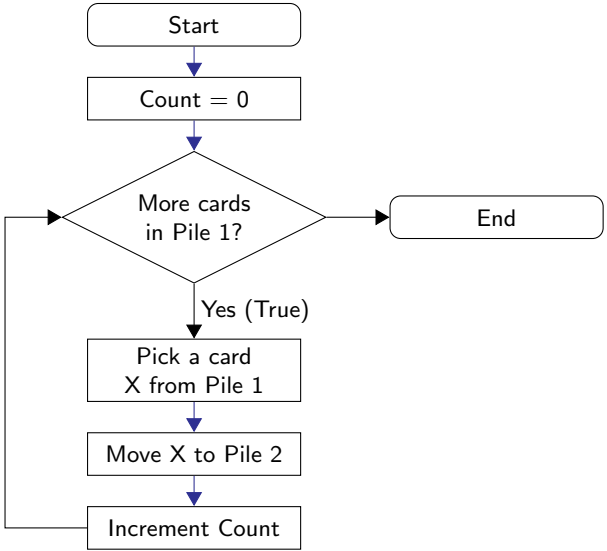
IIT Madras

ONLINE DEGREE

Pseudocode: From pictures to text

Flowcharts

- Pictorial representation of computational process
  - Counting the number of cards



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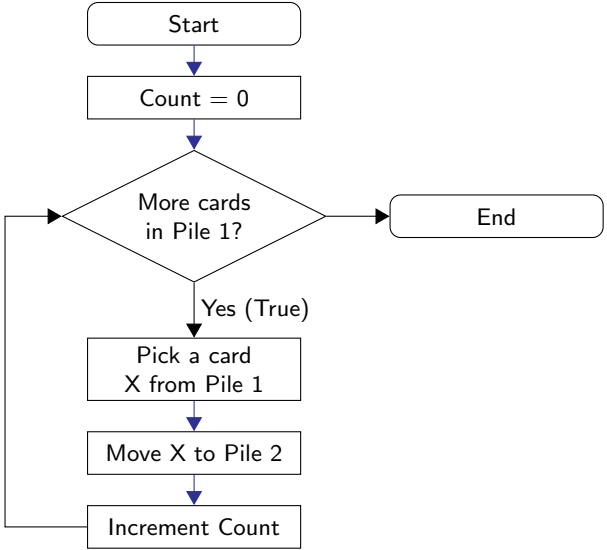

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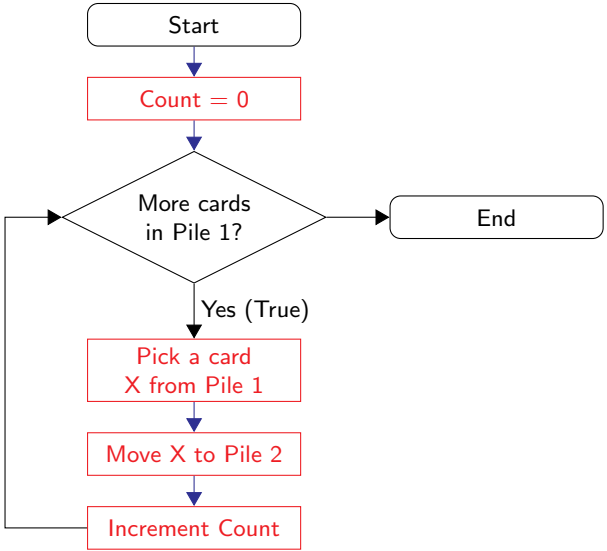

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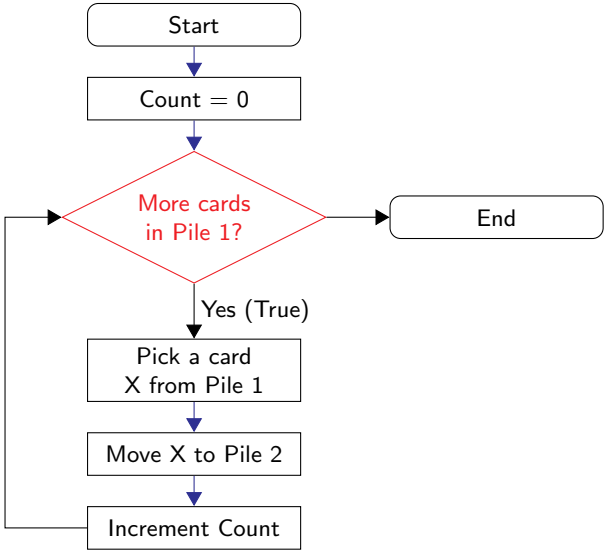

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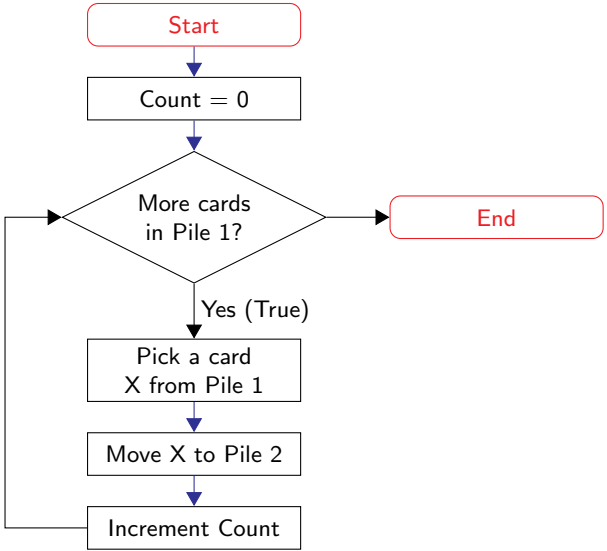

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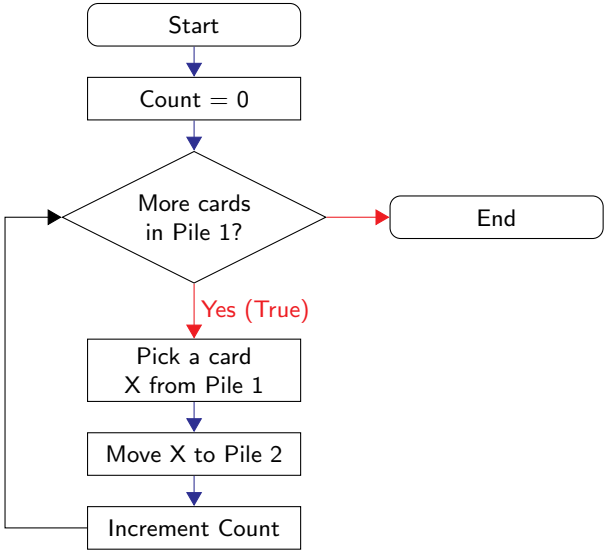

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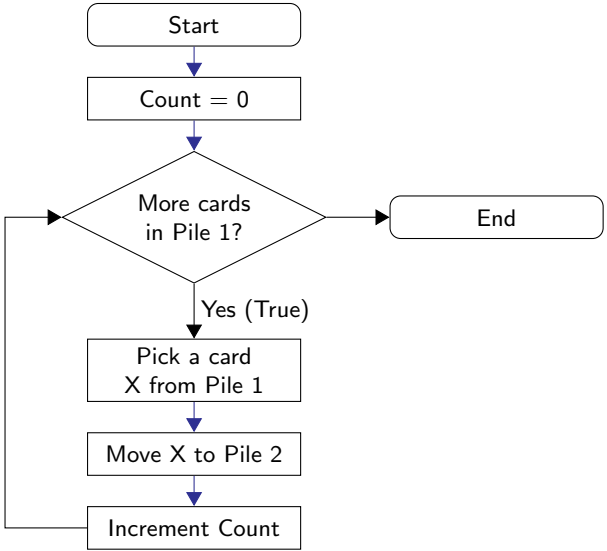
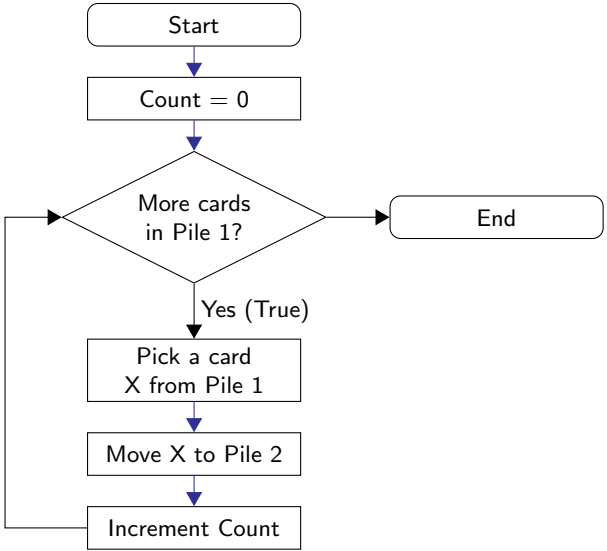


Pros and cons of flowcharts

Advantages

- Visual representation of computation
- Easy to understand



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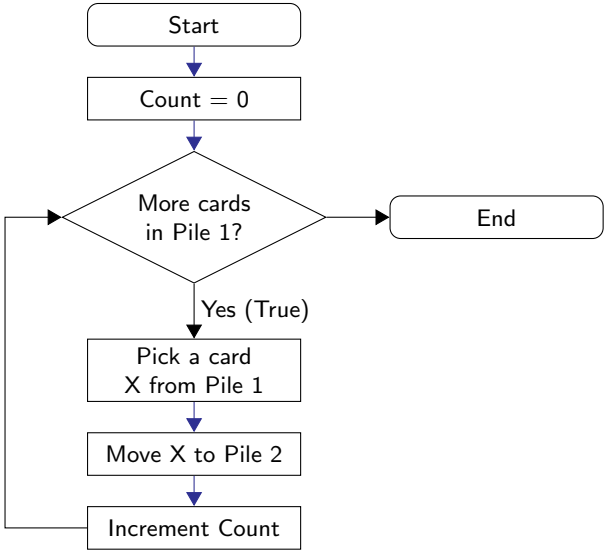

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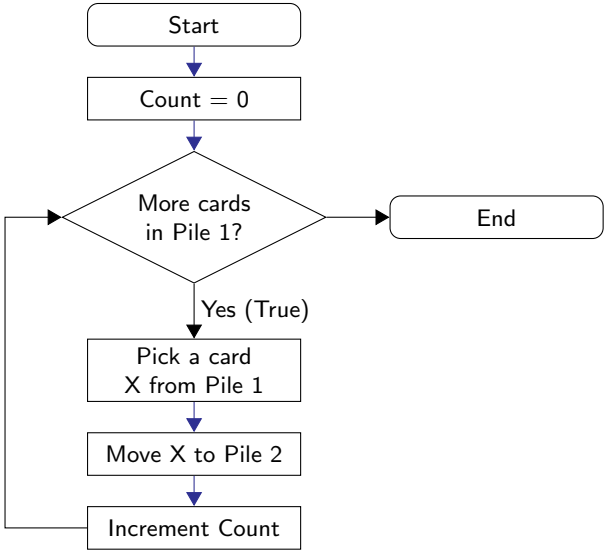

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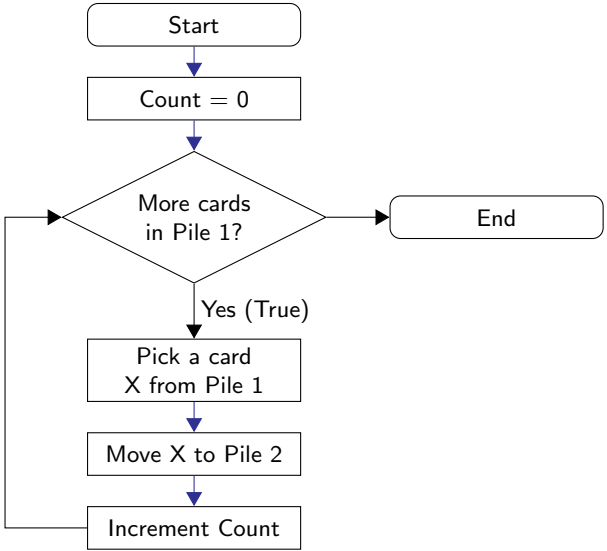

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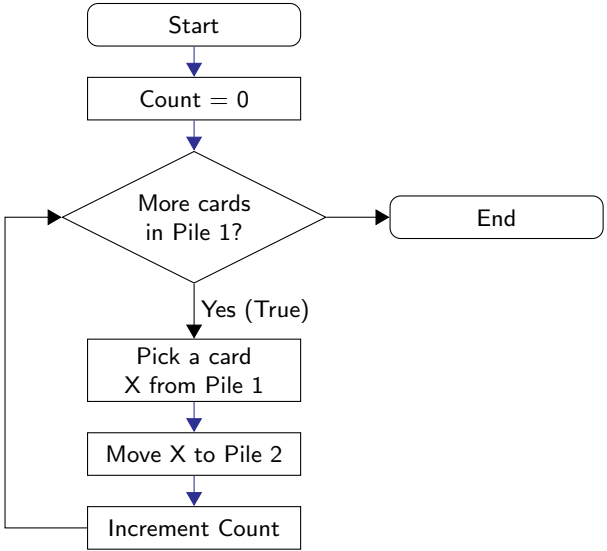
- Versions: Compare changes between flowcharts



From pictures to text

Describe the process in words

Step 0 Start

Step 1 Initialize **Count** to 0

Step 2 Check cards in Pile 1

Step 3 If no more cards, go Step 8

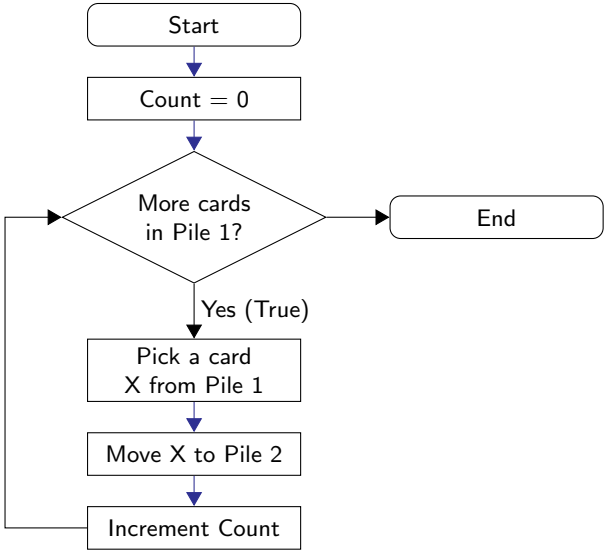
Step 4 Pick a card **X** from Pile 1

Step 5 Move **X** to Pile 2

Step 6 Increment **Count**

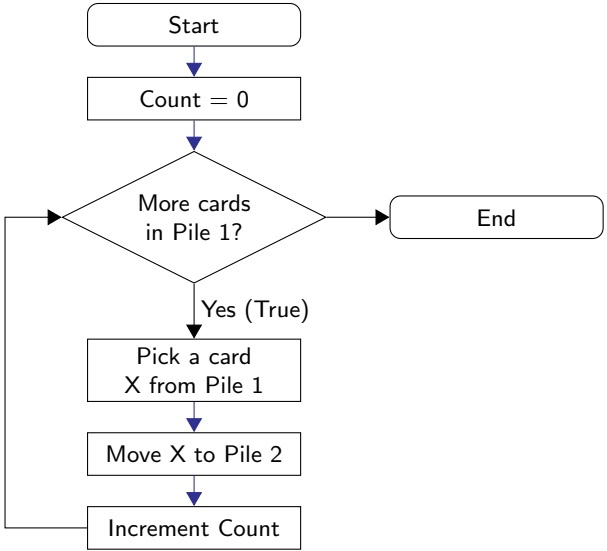
Step 7 Go back to Step 2

Step 8 End



Programming language

- Succinct notation for computational processes



Programming language

- Succinct notation for computational processes
- Better textual representation for Conditional execution

  Step 3 If no more cards, go to Step 8

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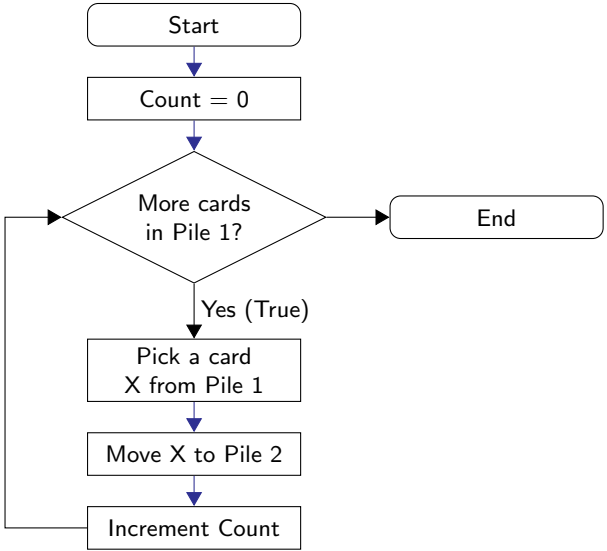

Programming language

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  Repeated execution

  Step 2 Check cards in Pile 1

  ⋮

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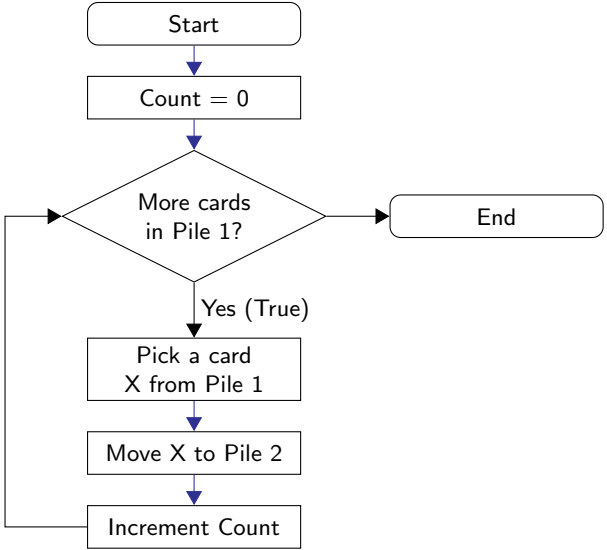


Pseudocode

Start

Count = 0

while (Pile 1 has more cards) {

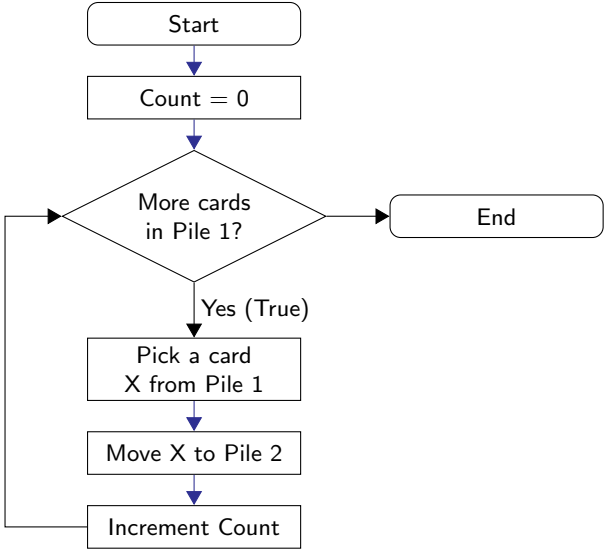
  Pick a card **X** from Pile 1

  Move **X** to Pile 2

  Increment **Count**

}

End



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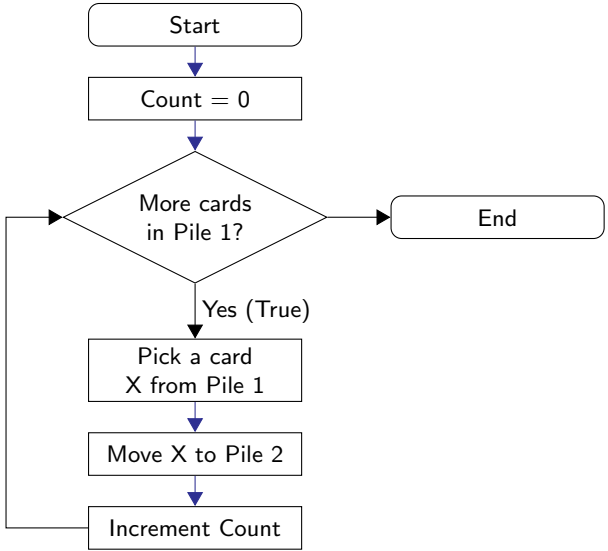

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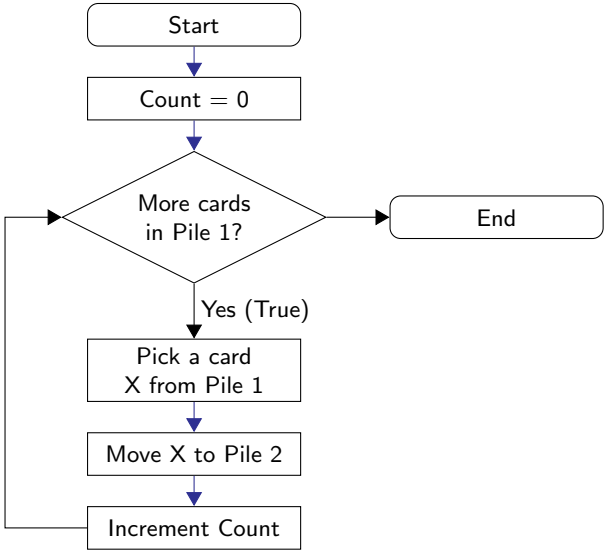

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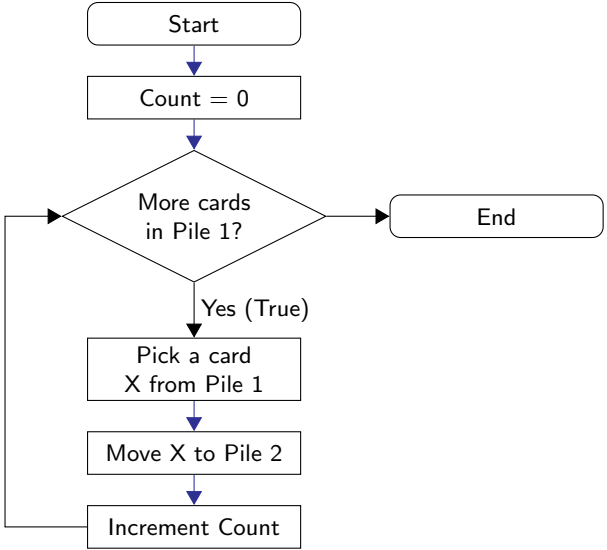
2. Repeat steps while condition holds
3. Mark start and end of repeated block



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