

## An Algorithm that will count number of even nodes and odd nodes of singly linked list.

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Count node (start)

If start = null

Print "error"

Exit

End if

Ptr<- start

Even count <- 0

Odd count <- 0

Repeat

If data -> ptr%2=0

Even count <- even count+1

Else

Odd count<- odd count+1

End if

Ptr <- link->ptr

If ptr=null

Exit

End if

End repeat

Print even count, odd count

End



200

100

400

500

Start is the address of first node of singly linked list here it is 200

Two Conditions must be applied one at the beginning and one at the end.

1. If start = null then print "error"
2. If ptr = null then exit.

Table below represents the dry run of the given algorithm.

<b>Data=54</b> <b>Condition-54%2==0</b> <b>=true</b> <b>Even count &lt;-0+1</b> <b>Even count &lt;-1</b>	<b>Data=15</b> <b>Condition-15%2==0</b> <b>=false</b> <b>oddcount &lt;-0+1</b> <b>oddcount &lt;-1</b>
<b>Data=42</b> <b>Condition-42%2==0</b> <b>=true</b> <b>Even count &lt;-1+1</b> <b>Even count &lt;-2</b>	<b>Data=55</b> <b>Condition-55%2==0</b> <b>=false</b> <b>Odd count &lt;-1+1</b> <b>Odd count &lt;-2</b>
<b>EVEN COUNT = 2</b>	<b>ODD COUNT =2</b>