

$i \leftarrow 1$   
 $s \leftarrow 0$

$s \leftarrow s + i$

$i > 100$

$i \leftarrow i + 1$

$s$

```
graph TD; Start(( )) --> Init["i ← 1  
s ← 0"]; Init --> Process["s ← s + i"]; Process --> Decision{"i > 100"}; Decision --> Increment["i ← i + 1"]; Increment --> Process; Decision --> End(( ));
```

The flowchart illustrates a loop that calculates the sum of integers from 1 to 100. It begins with an initialization step where  $i$  is set to 1 and  $s$  is set to 0. The main loop consists of two steps: first, adding the current value of  $i$  to  $s$  ( $s \leftarrow s + i$ ), and then incrementing  $i$  by 1 ( $i \leftarrow i + 1$ ). A decision diamond checks if  $i > 100$ . If the condition is true, the loop terminates, and the final value of  $s$  is output. If the condition is false, the flow returns to the addition step.