The Tracer step by step

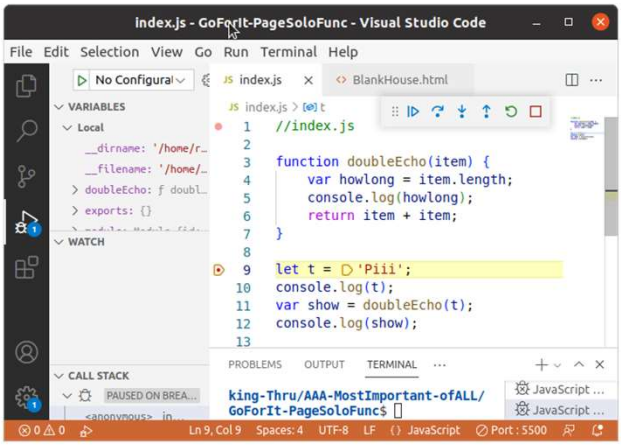
Page Solo-Function

Index.js

1

Slide-1

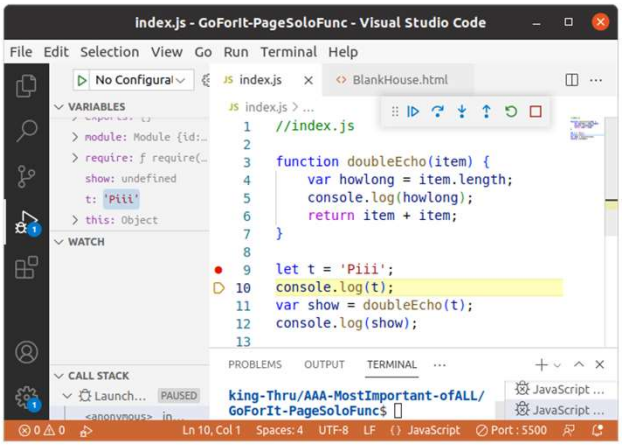
- There was one breakpoint.
- The tracing starts there by showing you which line is about to run.



2

Slide-2

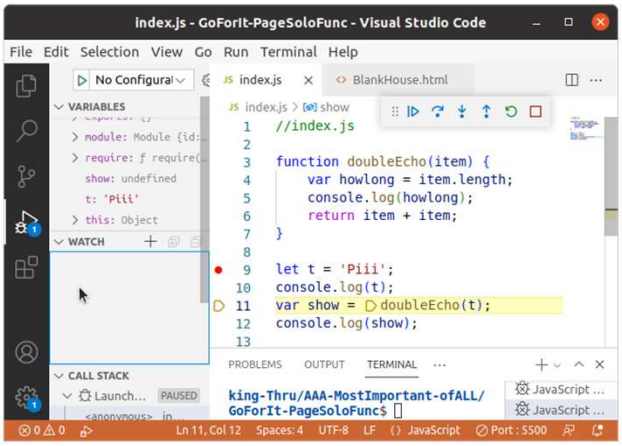
- As we move on the work done by the previous line is finished.
- So, right here the variable **t** has a value you can see in the top left-hand corner of the screen.



3

Slide-3

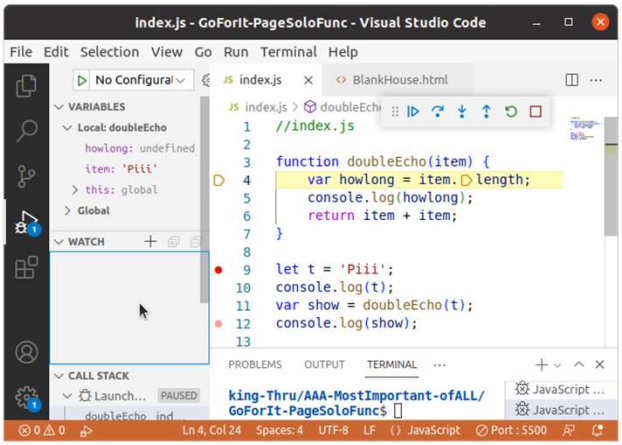
- The next line we look at shows the variable **show** given the value of a function.
- If you look at the line you can see that it *does something* with the **t** mentioned in {Slide2}.



4

Slide-4

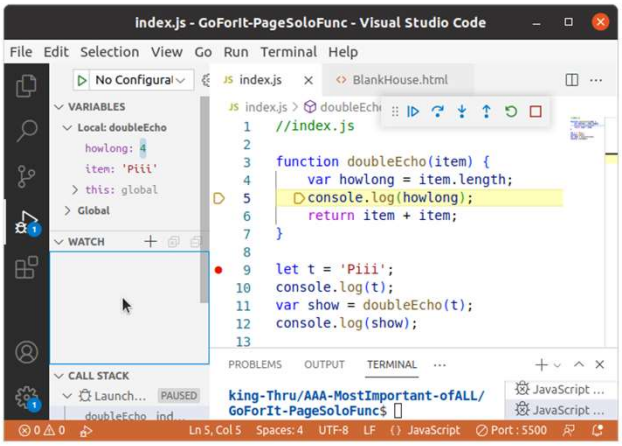
- GENERAL
  - The line shown by {Slide3} called this function and so focus switches to the **function** itself.
  - The "Piii" from the main program is in our current context held by the *parameter* item.
- SPECIAL
  - You can no longer see the original variables, (t and show). Instead, you see the context's variables.
  - This behavior is called SCOPE.



5

Slide-5

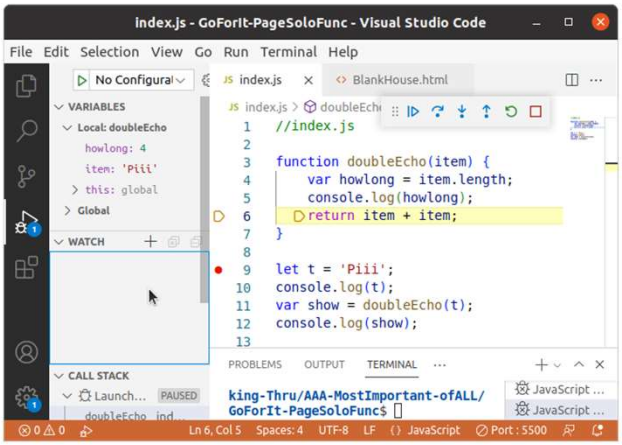
- Just for now, we are ignoring *console output*. The {final slide} explains that fully.
- Before moving on, note that the ariable howlong was given the value **4** by the previous line.



6

Slide-6

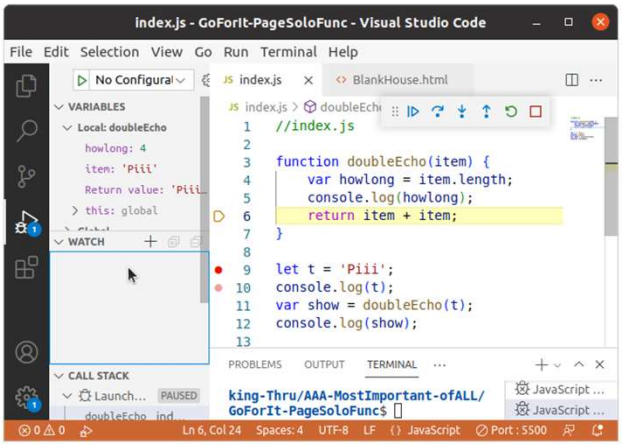
- This is the last line of the function – but in this case, we Can't yet see what it is going to *return*
- As in all previous slides, the results of a line only exist, after we **finish** with it.



7

Slide-7

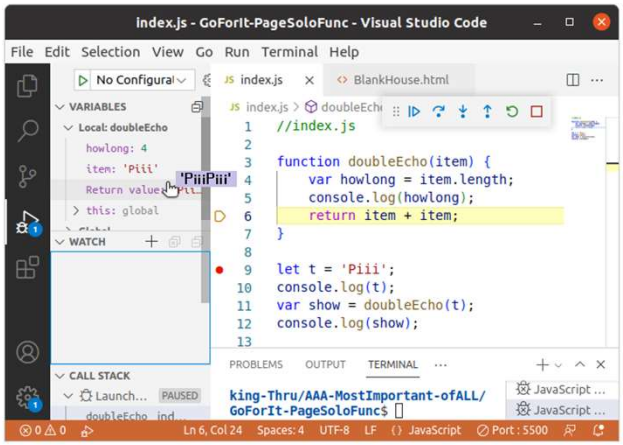
- The system is "trying" to help, but the window-section available is too small.
- As the user, you can put the mouse over what looks like the value.



8

Slide-8

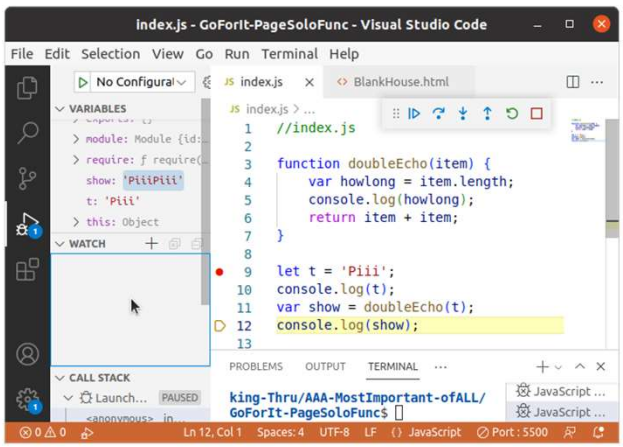
- The popup next to the hover-cursor is the complete value.
- Now we are sure the function returns “PiiiPiii”.



9

Slide-9

- Again, we ignore the console output.
- We study this line because it continues the action mentioned back in {slide-3}.
- The line which gives a value to variable **show** has finished and thus the result appears on a the top left section of the window.



10

Slide-Final

- It is time to fulfill the promises about console.log.For clarity of presentation I have hidden it so far.
- To see this in action, go back to {slides 3 and 6}.
- One reason, for the popularity of console.log, is that results STAY printed even after there has been a change of scope.
- The subject of SCOPE, was hinted at in {slide-4}.