Debugging Python in Eclipse

Debugging a python program in Eclipse IDE

In our last tutorial we learnt to integrate python in Eclipse and to print a Hello World Program.

In this tutorial we are trying to debug a python program in Eclipse.

Requirements

In this tutorial you need to know to create a python project in Eclipse.

Program to add 2 numbers in Empty Module

1. First we create a project named org.ancit.PYExample2.
2. Create a module named sum.
3. A template window will open select <Empty> and click OK.
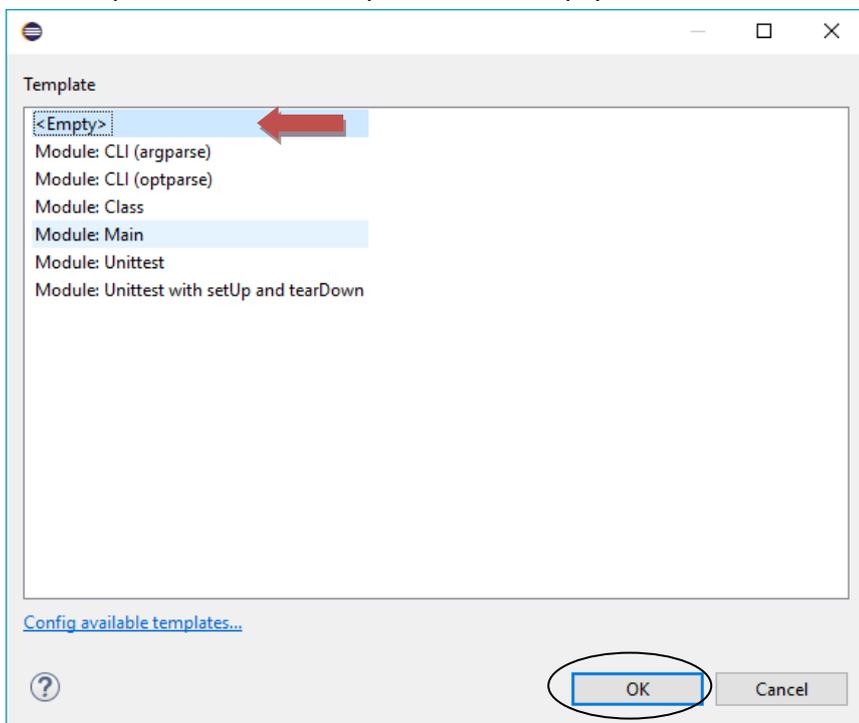
4. A Module named sum.py will open. Write the Following code in your module and save it.

```
def add(a,b):
        return a+b
print "SUM IS"
print add(6,2)
```

5. Now Run the code as Python Run.

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6. Output for the sum of 2 numbers will be printed in the console.

Debugging the code

1. Before debugging the code select the breakpoint for which you want to debug the code.

2. Right click on the line number of the code then select Add Breakpoint.
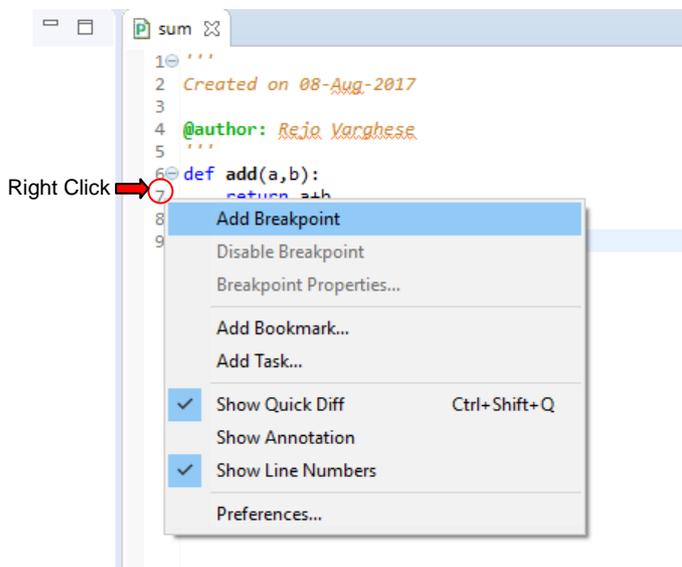
3. After adding the breakpoint. In Project Explorer right click on the module (i.e., sum.py) and select Python Run from Debug As, Debug As > 1 Python Run.

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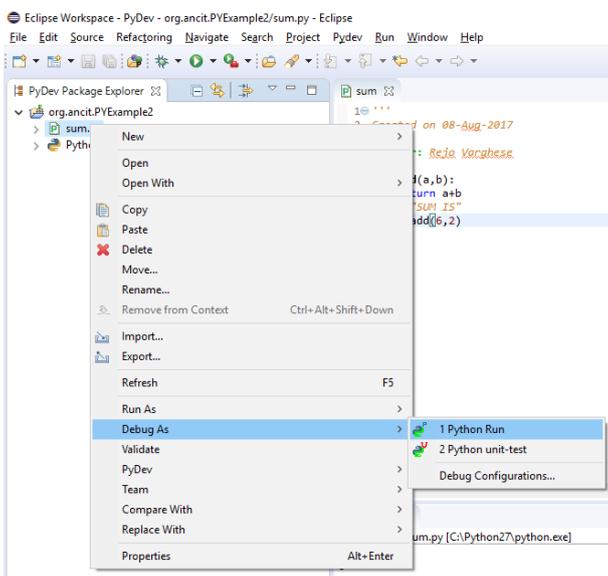
4. A Confirm Perspective Switch window will open confirm it by Clicking on Yes.
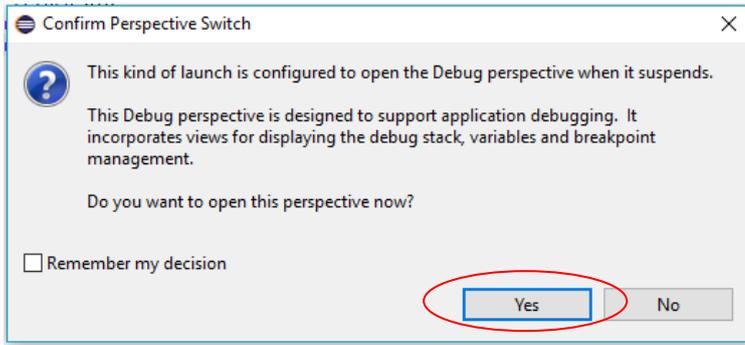
5. A debugging perspective window will open. Press F5 to step into next line. In the console evaluation you can enter the variable to know its value. You can see the type of variables in Variables View and your source code in the editor.

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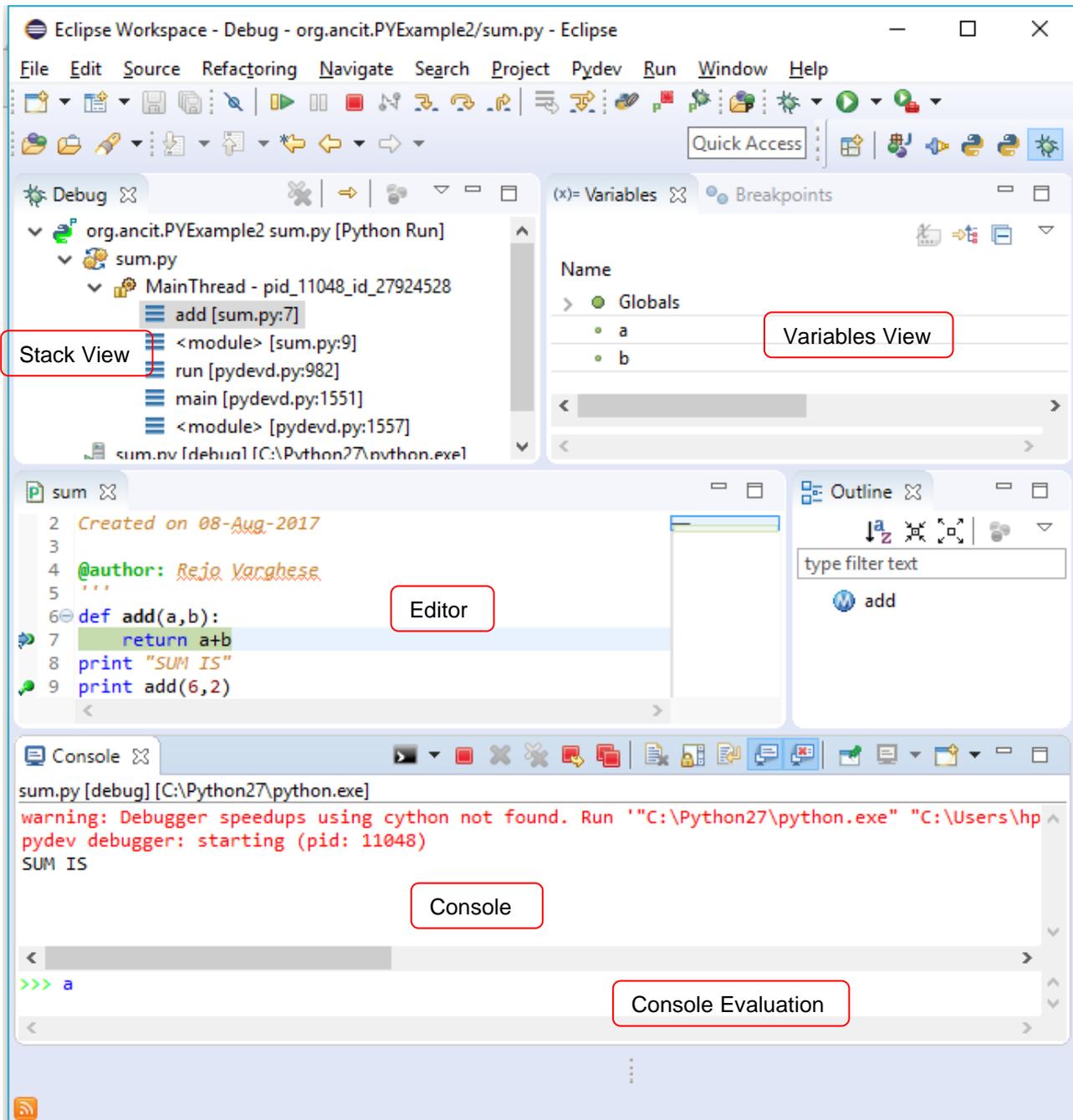
6. Following are some basic keybindings used in debugging:

- Step in: F5
- Step over: F6
- Step Out : F7
- Resume : F8
- Toggle Breakpoint : Ctrl + Shift + B
- Set Next Statement : Ctrl + Alt + R (note that it will set the next line to be executed, not run until some line is hit)

- Use line prefixed with **>>>** in the console to evaluate expressions.

Conditional Breakpoints

1. Goto the previously selected breakpoint. Right Click on it and click Breakpoint properties
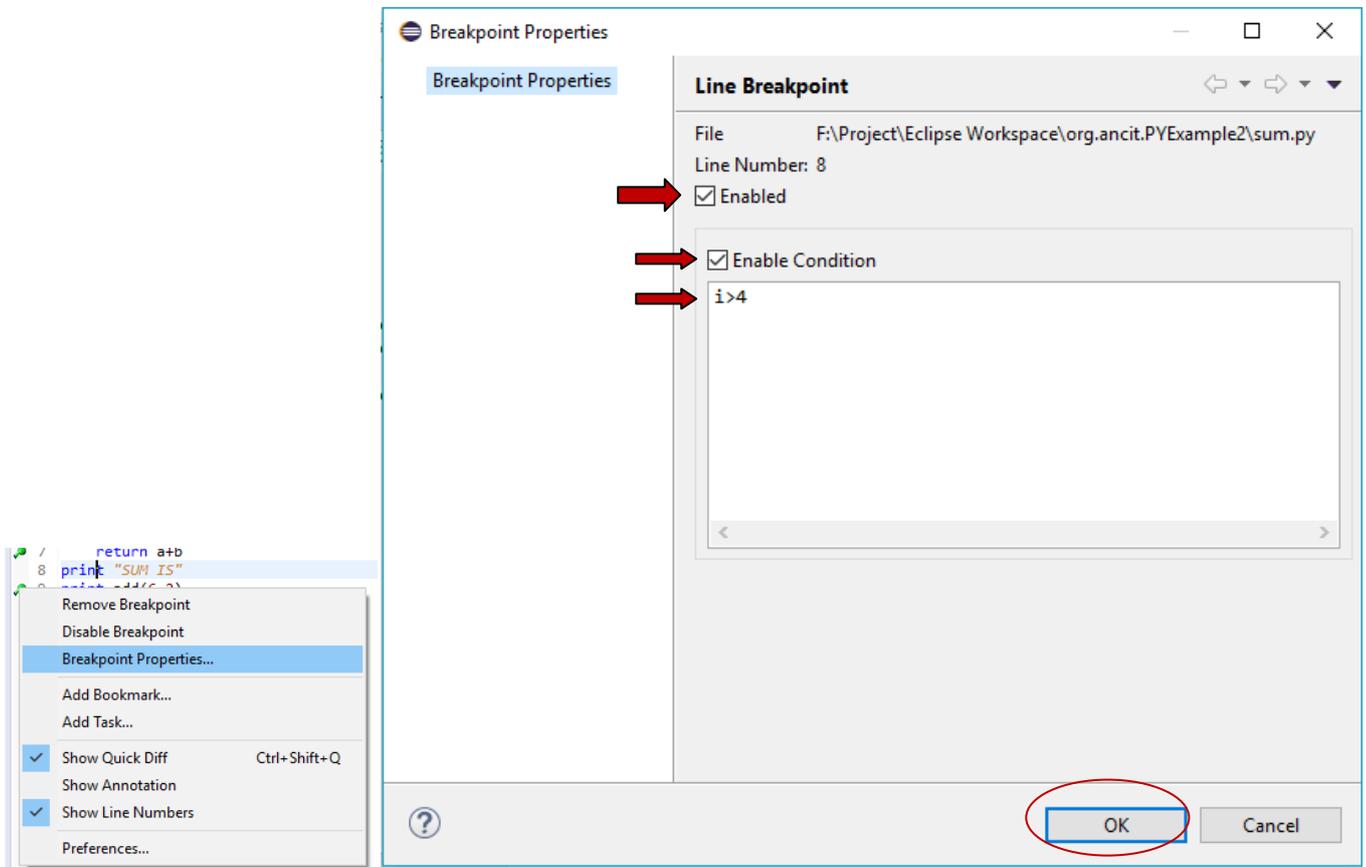
2. A breakpoint properties window will open. Select the Enabled Condition option write the condition for breakpoint and Click OK.

3. Press F5 to see the debugging.

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Output
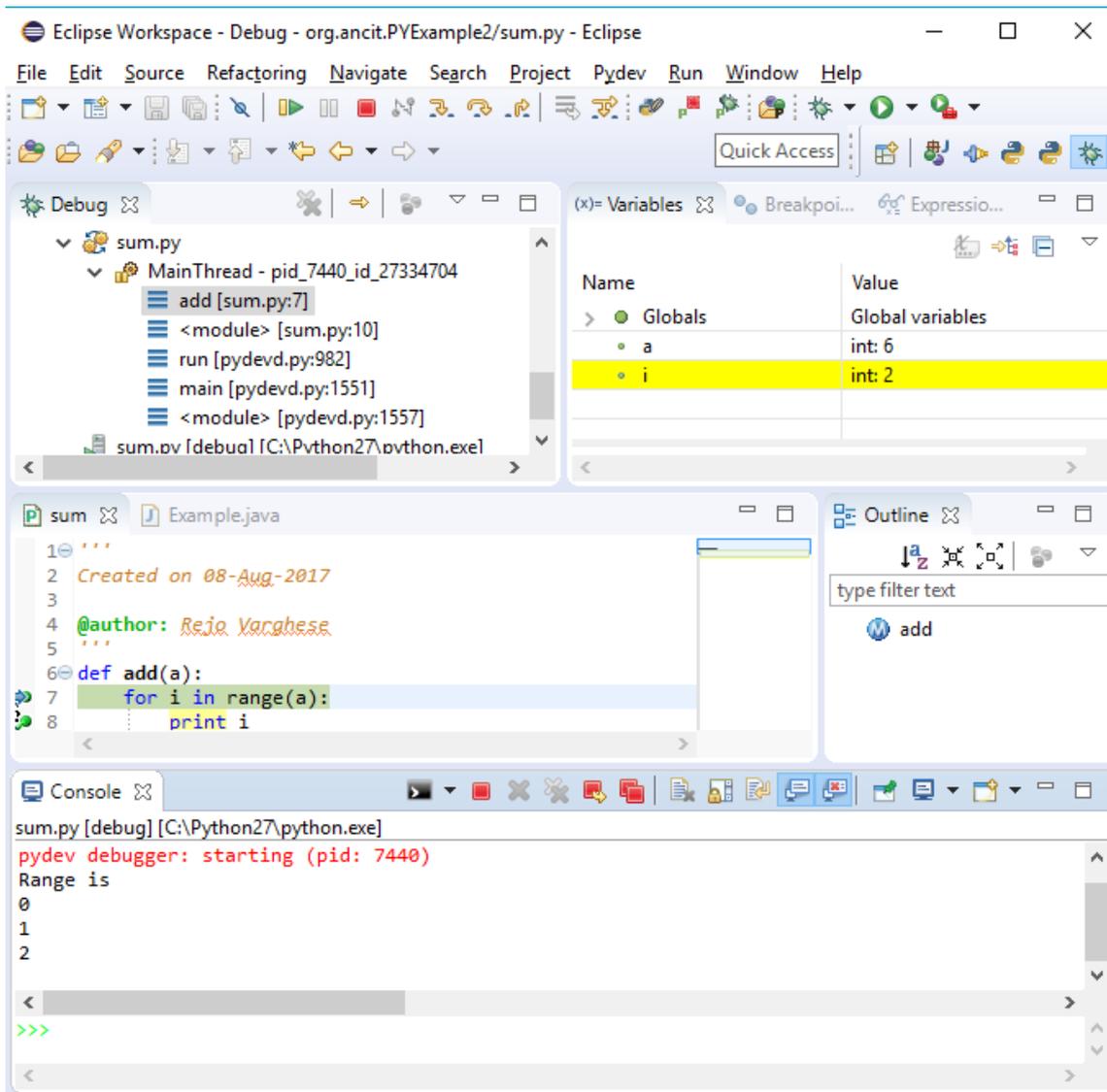
We have successfully added 2 numbers in Eclipse Console via Python Language. We were able to debug the code by adding breakpoint properties also.

Hope this tutorial was helpful for debugging.

ABOUT ANCIT:

ANCIT Consulting is an Eclipse Consulting Firm located in the "Silicon Valley of Outsourcing", Bangalore. Offers professional Eclipse Support and Training for various Eclipse based Frameworks including RCP, EMF, GEF, GMF. Contact us on annamalai@ancitconsulting.com to learn more about our services.

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