```
1  /home/r5sim/PycharmProjects/Example1/venv/bin/python /home
   /r5sim/pycharm-2019.1.3/helpers/pydev/pydevconsole.py --
   mode=client --port=41523
2
3  import sys; print('Python %s on %s' % (sys.version, sys.
   platform))
4  sys.path.extend(['/home/r5sim/PycharmProjects/Example1'])
5
6  PyDev console: starting.
7
8  Python 2.7.13 (default, Sep 26 2018, 18:42:22)
9  [GCC 6.3.0 20170516] on linux2
10 >>> runfile('/home/r5sim/PycharmProjects/Example1/
   4_Methods/JoinDfs1.py', wdir='/home/r5sim/PycharmProjects/
   Example1/4_Methods')
11 --- df1 ---
12    data
13 O      0
14 U      1
15 L      2
16 O      3
17 U      4
18 Index([u'O', u'U', u'L', u'O', u'U'], dtype='object')
19 --- df2 ---
20    profit
21 O      10
22 O      20
23 U      20
24 Index([u'O', u'O', u'U'], dtype='object')
25  - df2 joined with df1 -
26    data  profit
27 L     2     NaN
28 O     0    10.0
29 O     0    20.0
30 O     3    10.0
31 O     3    20.0
32 U     1    20.0
33 U     4    20.0
34 Index([u'L', u'O', u'O', u'O', u'O', u'U', u'U'], dtype='
   object')
35 ===================
36 --- df3 ---
37    ref1   ref2   ref3
38 0    A      5      0
39 1    A      10     1
40 2    O      15     2
41 3    O      20     3
42 4    A      25     4
43 RangeIndex(start=0, stop=5, step=1)
44 --- df4 ---
```

```
45        col1  col2
46 A 20     0     1
47    10     2     3
48 0 10     4     5
49    10     6     7
50    20     8     9
51 MultiIndex(levels=[[u'A', u'0'], [10, 20]],
52            codes=[[0, 0, 1, 1, 1], [1, 0, 0, 0, 1]])
53 --- df4 reindexed to df3 index with level=0, problem
   pending---
54 Empty DataFrame
55 Columns: [col1, col2]
56 Index: []
57 MultiIndex(levels=[[0, 1, 2, 3, 4], [10, 20]],
58            codes=[[], []])
59 ===========
60 --- df3 ---
61   ref1  ref2  ref3
62 0    A     5     0
63 1    A    10     1
64 2    0    15     2
65 3    0    20     3
66 4    A    25     4
67 RangeIndex(start=0, stop=5, step=1)
68 --- df6 ---
69   ref1  ref2  ref3
70 0    A    15     5
71 1    A    20     6
72 2    0    25     7
73 3    0    30     8
74 4    0    35     9
75 RangeIndex(start=0, stop=5, step=1)
76 --- df6 joined df3 ---
77   ref1x  ref2x  ref3x ref1y  ref2y  ref3y
78 0     A      5      0     A     15      5
79 1     A     10      1     A     20      6
80 2     0     15      2     0     25      7
81 3     0     20      3     0     30      8
82 4     A     25      4     0     35      9
83 RangeIndex(start=0, stop=5, step=1)
84 ===========
85 --- df3 ---
86   ref1  ref2  ref3
87 0    A     5     0
88 1    A    10     1
89 2    0    15     2
90 3    0    20     3
91 4    A    25     4
92 RangeIndex(start=0, stop=5, step=1)
93 --- df6 indexes 5 to 9---
```

```
 94    ref1   ref2    ref3
 95 5    A      15       5
 96 6    A      20       6
 97 7    0      25       7
 98 8    0      30       8
 99 9    0      35       9
100 Int64Index([5, 6, 7, 8, 9], dtype='int64')
101 --- df6 different indexes joined with df3 ---
102   ref1x   ref2x   ref3x ref1y   ref2y   ref3y
103 0    A       5       0  NaN     NaN     NaN
104 1    A      10       1  NaN     NaN     NaN
105 2    0      15       2  NaN     NaN     NaN
106 3    0      20       3  NaN     NaN     NaN
107 4    A      25       4  NaN     NaN     NaN
108 RangeIndex(start=0, stop=5, step=1)
109
```