

```

1  heap layout for x64 (wordSize=8)
2
3      ----- <-- call_helper() function stack base, %rbp, points to
4  local variables | //..... |
5      ----->
6      | thread |
7      -----> <-- 3(%rbp) (3 * wordSize)
8      | parameterSize |
9      -----> <-- 2(%rbp) (2 * wordSize)
10     | return address | (rip)
11     -----> <-- 1(%rbp) (1 * wordSize)
12     | rbp |
13     -----> <-- CallStub() function stack base, %rbp, points to
14     | parameters |
15     -----> <-- -1(%rbp) (1 * wordSize)
16 Input param-- | entry_point |
17     -----> <-- -2(%rbp) (2 * wordSize)
18     | method |
19     -----> <-- -3(%rbp) (3 * wordSize)
20     | result_type |
21     -----> <-- -4(%rbp) (4 * wordSize)
22     | resultAddress |
23     -----> <-- -5(%rbp) (5 * wordSize)
24     | call wrapper | (link)
25     -----> <-- -6(%rbp) (6 * wordSize)
26 8 bytes -----> <-- -7(%rbp) (7 * wordSize)
27 8 bytes -----> <-- -8(%rbp) (8 * wordSize)
28 -----> <-- -9(%rbp) (9 * wordSize)
29 32 bytes-- | r14 |
30     -----> <-- -10(%rbp) (10 * wordSize)
31     | r15 |
32     -----> <-- -11(%rbp) (11 * wordSize)
33     | c_rarg0 | (call wrapper address)
34     -----> <-- -12(%rbp) (12 * wordSize) <-- rsp / r13
35     | c_rarg1 | (result)
36     -----> <-- -13(%rbp) (13 * wordSize) <-- rsp-1
37     | c_rarg2 | (result type)
38     -----> <-- -14(%rbp) (14 * wordSize) <-- rsp-2
39     | c_rarg3 | (method)
40     -----> <-- -15(%rbp) (15 * wordSize) <-- rsp-3
41     | c_rarg4 | (entry point)
42     -----> <-- -16(%rbp) (16 * wordSize) <-- rsp-4
43     | c_rarg5 |
44     -----> <-- -17(%rbp) (17 * wordSize) <-- rsp-5
45     | arg-N |
46     -----> <-- -(11+N)4(%rbp) ((11+N) * wordSize)
47     | rip |
48     -----> <--
49
50
51
52

```