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Lab 09 – Runtime Stack

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1.

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| --- |
| Location B: |
| Load b[1] = 8 |
| Load b[0] = 4 |
| Local variable k = 4 |
| Local variable b[0] = 0 |
| Local variable b[1] = 0 |
| Dynamic link |
| Return address |
| Return value = 14 |
| Parameter n = 2 |
| Local variable b[0] = 2 |
| Local variable b[1] = 3 |
| Local variable b[2] = 4 |
| NULL dynamic link |
| Return address to OS |
| Return value |

|  |
| --- |
| Location C: |
| Load b[2] = 14 |
| Local variable b[0] = 2 |
| Local variable b[1] = 3 |
| Local variable b[2] = 4 |
| NULL dynamic link |
| Return address to OS |
| Return value = 14 |

Activation record main()

Activation record h()

Activation record main()

2.

|  |
| --- |
| Location A: |
| Dynamic link |
| Return address |
| Return value = 6 |
| Parameter n = 1 |
| Parameter r = 6 |
| Dynamic link |
| Return address |
| Return value |
| Parameter n = 2 |
| Parameter r = 3 |
| Dynamic link |
| Return address |
| Return value |
| Parameter n = 3 |
| Parameter r = 1 |
| Local variable x = 0 |
| NULL dynamic link |
| Return address to OS |
| Return value |

|  |
| --- |
| Location B: |
| Dynamic link |
| Return address |
| Return value |
| Parameter n = 2 |
| Parameter r = 3 |
| Dynamic link |
| Return address |
| Return value |
| Parameter n = 3 |
| Parameter r = 1 |
| Local variable x = 0 |
| NULL dynamic link |
| Return address to OS |
| Return value |

|  |
| --- |
| Location C: |
| Dynamic link |
| Return address |
| Return value = 6 |
| Parameter n = 3 |
| Parameter r = 1 |
| Local variable x = 0 |
| NULL dynamic link |
| Return address to OS |
| Return value |

main()

g(3, 1)

g(2, 3)

g(1, 6)

g(2, 3)

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g(3, 1)

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| --- |
| Location E: |
| Load x = 6 |
| Local variable x = 0 |
| NULL dynamic link |
| Return address to OS |
| Return value = 0 |

g(3, 1)

main()

main()

main()