CST 415 – Assignment 1 Test Cases

Wilsonville, Fall 2019

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# TC1

Simulates a PRS client, SVC1, that requests a port, keeps it alive and then closes it.

|  |  |  |
| --- | --- | --- |
|  | SVC1 | PRS |
| 1 |  | PRS -p 30000 -s 40000 -e 40100 -t 10 |
| 2 | {REQUEST\_PORT, “SVC1”, 0, 0} |  |
| 3 |  | {RESPONSE, “SVC1”, 40000, SUCCESS} |
| 4 | {KEEP\_ALIVE, “SVC1”, 40000, 0} |  |
| 5 |  | {RESPONSE, “SVC1”, 40000, SUCCESS} |
| 6 | {CLOSE\_PORT, “SVC1”, 40000, 0} |  |
| 7 |  | {RESPONSE, “SVC1”, 40000, SUCCESS} |

# TC2

Simulates two PRS clients, SVC1 and C1, where SVC1 requests a port, and C1 looks up the port.

|  |  |  |  |
| --- | --- | --- | --- |
|  | SVC1 | PRS | C1 |
| 1 |  | PRS -p 30000 -s 40000 -e 40100 -t 10 |  |
| 2 | {REQUEST\_PORT, “SVC1”, 0, 0} |  |  |
| 3 |  | 🡨 {RESPONSE, “SVC1”, 40000, SUCCESS} |  |
| 4 |  |  | {LOOKUP\_PORT, “SVC1”, 0, 0} |
| 5 |  | {RESPONSE, “SVC1”, 40000, SUCCESS} 🡪 |  |
| 6 | {CLOSE\_PORT, “SVC1”, 40000, 0} |  |  |
|  |  | 🡨 {RESPONSE, “SVC1”, 40000, SUCCESS} |  |

# TC3

Simulates two PRS clients, SVC1 and SVC2, where SVC1 requests a port, then SVC2 requests a port and receives its own port.

|  |  |  |  |
| --- | --- | --- | --- |
|  | SVC1 | PRS | SVC2 |
| 1 |  | PRS -p 30000 -s 40000 -e 40100 -t 10 |  |
| 2 | {REQUEST\_PORT, “SVC1”, 0, 0} |  |  |
| 3 |  | 🡨 {RESPONSE, “SVC1”, 40000, SUCCESS} |  |
| 4 |  |  | {REQUEST\_PORT, “SVC2”, 0, 0} |
| 5 |  | {RESPONSE, “SVC2”, 40001, SUCCESS} 🡪 |  |
| 6 | {CLOSE\_PORT, “SVC1”, 40000, 0} |  |  |
| 7 |  | 🡨 {RESPONSE, “SVC1”, 40000, SUCCESS} |  |
| 8 |  |  | {CLOSE\_PORT, “SVC2”, 40001, 0} |
| 9 |  | {RESPONSE, “SVC2”, 40001, SUCCESS} 🡪 |  |

# TC4

Simulates two PRS clients, SVC1 and SVC2, where SVC1 requests a port, SVC1 fails to keep the port alive, then SVC2 requests a port and receives SVC1’s expired port.

|  |  |  |  |
| --- | --- | --- | --- |
|  | SVC1 | PRS | SVC2 |
| 1 |  | PRS -p 30000 -s 40000 -e 40100 -t 10 |  |
| 2 | {REQUEST\_PORT, “SVC1”, 0, 0} |  |  |
| 3 |  | 🡨 {RESPONSE, “SVC1”, 40000, SUCCESS} |  |
| 4 |  |  | <sleep 15 sec> |
| 5 |  |  | {REQUEST\_PORT, “SVC2”, 0, 0} |
| 6 |  | {RESPONSE, “SVC2”, 40000, SUCCESS} 🡪 |  |
| 7 |  |  | {CLOSE\_PORT, “SVC2”, 40000, 0} |
| 8 |  | {RESPONSE, “SVC2”, 40000, SUCCESS} 🡪 |  |

# TC5

Simulates two PRS clients, SVC1 and SVC2, where SVC1 requests a port, SVC1 keeps the port alive, then SVC2 requests a port and receives its own port.

|  |  |  |  |
| --- | --- | --- | --- |
|  | SVC1 | PRS | SVC2 |
| 1 |  | PRS -p 30000 -s 40000 -e 40100 -t 10 |  |
| 2 | {REQUEST\_PORT, “SVC1”, 0, 0} |  |  |
| 3 |  | 🡨 {RESPONSE, “SVC1”, 40000, SUCCESS} |  |
| 4 | <sleep 8 sec> |  |  |
| 5 | {KEEP\_ALIVE, “SVC1”, 40000, 0} |  |  |
| 6 |  | 🡨 {RESPONSE, “SVC1”, 40000, SUCCESS} |  |
| 7 |  |  | <sleep 8 sec> |
| 8 |  |  | {REQUEST\_PORT, “SVC2”, 0, 0} |
| 9 |  | {RESPONSE, “SVC2”, 40001, SUCCESS} 🡪 |  |
| 10 |  |  | {CLOSE\_PORT, “SVC2”, 40001, 0} |
| 11 |  | {RESPONSE, “SVC2”, 40001, SUCCESS} 🡪 |  |
| 12 | {CLOSE\_PORT, “SVC1”, 40000, 0} |  |  |
| 13 |  | 🡨 {RESPONSE, “SVC1”, 40000, SUCCESS} |  |

# TC6

Simulates a PRS client, M, that tells the PRS to stop

|  |  |  |
| --- | --- | --- |
|  | M | PRS |
| 1 |  | PRS -p 30000 -s 40000 -e 40100 -t 10 |
| 2 | {STOP, “”, 0, 0} |  |
| 3 |  | {RESPONSE, “”,0, SUCCESS} |
| 4 |  | <exits> |