# ListStack 2

Looking at the Stack below; Follow the code executions and write in the current state of the List at Each state.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **State** | **Code** |  |  |  |  | |  |  |  | |  |  | |  |  |
|  |  | **A** |  |  |  | |  |  |  | |  |  | |  |  |
| **A** | ListStack stack = new ListStack() |  | isEmpty() | | | True | | | |  | | |  | | | |
|  |  |  |  | | |  | | | |  | | |  | | | |
|  | Push(16) |  | 16 |  | 82 | |  | 54 |  | |  |  | |  |  |
|  | Push(82) | **B** | Ref | 🡺 | Ref | | 🡺 | null |  | |  |  | |  |  |
| **B** | Push(54) |  | isEmpty() | | | False | | | |  | | |  | | | |
|  |  |  |  | | |  | | | |  | | |  | | | |
|  | Push(67) |  | 16 |  | 82 | |  | 54 |  | | 67 |  | | 24 |  |
| **C** | Push(24) | **C** | Ref |  | Ref | |  | Ref |  | | Ref |  | | Null |  |
|  | Pop() |  | isEmpty() | | | False | | | |  | | |  | | | |
|  |  |  |  | | |  | | | |  | | |  | | | |
|  | Pop() |  | 16 |  | 82 | |  |  |  | |  |  | |  |  |
| **D** | Pop() | **D** | Ref |  | Null | |  |  |  | |  |  | |  |  |
|  | Push(15) |  | isEmpty() | | | False | | | |  | | |  | | | |
|  |  |  |  | | |  | | | |  | | |  | | | |
|  | Pop() |  |  |  |  | |  |  |  | |  |  | |  |  |
|  | Pop() | **E** |  |  |  | |  |  |  | |  |  | |  |  |
| **E** | Pop() |  | isEmpty() | | | True | | | |  | | |  | | | |
|  |  |  |  | | |  | | | |  | | |  | | | |
|  | Push(87) |  | 87 |  | 52 | |  |  |  | |  |  | |  |  |
| **F** | Push(52) | **F** | Ref |  | Null | |  |  |  | |  |  | |  |  |
|  | Push(98) |  | isEmpty() | | | False | | | |  | | |  | | | |
|  |  |  |  | | |  | | | |  | | |  | | | |
|  | Push(76) |  | 87 |  | 52 | |  |  |  | |  |  | |  |  |
|  | Pop() | **G** | Ref |  | Null | |  |  |  | |  |  | |  |  |
| **G** | Pop() |  | isEmpty() | | | False | | | |  | | |  | | | |
|  |  |  |  | | |  | | | |  | | |  | | | |
|  | Push(5) |  | 87 |  | 52 | |  | 5 |  | | 66 |  | |  |  |
| **H** | Push(66) | **H** | Ref |  | Ref | |  | Ref |  | | Null |  | |  |  |
|  | Pop() |  | isEmpty() | | | False | | | |  | | |  | | | |
|  |  |  |  | | |  | | | |  | | |  | | | |
|  | Pop() |  | 87 |  | 52 | |  | 19 |  | |  |  | |  |  |
| **I** | Push(19) | **I** | Ref |  | Ref | |  | Null |  | |  |  | |  |  |
|  | Push(34) |  | isEmpty() | | | False | | | |  | | |  | | | |
|  |  |  |  | | |  | | | |  | | |  | | | |
|  |  |  | 87 |  | 52 | |  | 19 |  | | 34 |  | |  |  |
|  |  | **J** | Ref |  | Ref | |  | Ref |  | | Null |  | |  |  |
| **J** | Final |  | isEmpty() | | | False | | | |  | | |  | | | |