# ArrayStack 1

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **State** | | **Index** | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **A** | ArrayStack stack = new ArrayStack(10) | **A** |  |  |  |  |  |  |  |  |  |  |
|  | Push(4) |  | isEmpty() | | | True | | isFull() | | | False | |
|  | Push(5) |  |  |  |  |  |  |  |  |  |  |  |
|  | Push(2) | **B** | 4 | 5 | 2 | 52 |  |  |  |  |  |  |
| **B** | Push(52) |  | isEmpty() | | | False | | isFull() | | | False | |
|  | Push(8) |  |  |  |  |  |  |  |  |  |  |  |
|  | Push(14) | **C** | 4 | 5 | 2 | 52 | 8 | 14 | 19 |  |  |  |
| **C** | Push(19) |  | isEmpty() | | | False | | isFull() | | | False | |
|  | Push(10) |  |  |  |  |  |  |  |  |  |  |  |
|  | Push(23) | **D** | 4 | 5 | 2 | 52 | 8 | 14 | 19 | 10 | 23 | 17 |
| **D** | Push(17) |  | isEmpty() | | | False | | isFull() | | | True | |
|  | Pop() |  |  |  |  |  |  |  |  |  |  |  |
| **E** | Pop() | **E** | 4 | 5 | 2 | 52 | 8 | 14 | 19 | 10 |  |  |
|  | Push(1) |  | isEmpty() | | | False | | isFull() | | | False | |
|  | Pop() |  |  |  |  |  |  |  |  |  |  |  |
|  | Pop() | **F** | 4 | 5 | 2 | 52 | 8 | 14 |  |  |  |  |
| **F** | Pop() |  | isEmpty() | | | False | | isFull() | | | False | |
|  | Pop() |  |  |  |  |  |  |  |  |  |  |  |
|  | Pop() | **G** | 4 | 5 | 2 | 52 | 7 |  |  |  |  |  |
| **G** | Push(7) |  | isEmpty() | | | False | | isFull() | | | False | |
|  | Pop() |  |  |  |  |  |  |  |  |  |  |  |
|  | Pop() | **H** | 4 | 5 |  |  |  |  |  |  |  |  |
| **H** | Pop() |  | isEmpty() | | | False | | isFull() | | | False | |
|  | Pop() |  |  |  |  |  |  |  |  |  |  |  |
| **I** | Pop() | **I** |  |  |  |  |  |  |  |  |  |  |
|  | Push(1) |  | isEmpty() | | | True | | isFull() | | | False | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **J** | Final State | **J** | 1 |  |  |  |  |  |  |  |  |  |