JAVA with Data Structures

Course Duration:	▪ 45 minutes daily for 20 Days, break after every 4 days
Average time, students need to invest	▪ Daily 45 minutes lecture + 30 minutes self-study
Programming efforts	▪ Directly download the source from Git and Run
Pre-requisite	▪ JDK and Eclipse
JAVA packages covered	▪ Java.lang, java.utils, java.io
Benefits	▪ It's just not a Java/DS specialization course but a simplified process, to make concepts simpler and easy to learn. ▪ This course utilizes various psychological aspects of learning e.g. Spacing Effect, Forgetting Curve, Visuospatial Sketchpad etc. ▪ After the end of this course, students will be able to start understanding the implementation of core Java classes. ▪ After the end of this course, students will be able to delve further into complex algorithms and data structures. ▪ After the end of this course, students will be more aligned and socialized for next level of learning.

Content	Date	Status
✓ Day 1		
○ Introduction		
○ Arrays		
○ Stack using Array		
✓ Day 2		
○ Stack revision		
○ Queue using Array		
✓ Day 3		
○ Stack revision		
○ Queue revision		
○ Questions on Stack/Queue		
✓ Day 4		
○ Stack/Queue revision		
○ Linked List		
✓ Day 5		
○ Linked List revision		
○ Circular Linked List		
○ Questions on Linked List		
✓ Day 6		
○ Circular Linked List revision		
○ Double Ended Link List		
○ Stack using Linked List		
○ Queue using Linked List		
✓ Day 7		
○ Revision of Linked List and Stack/Queue based on Linked List		
○ Questions on Linked List and Stack/Queue based on Linked List		
✓ Day 8		
○ Revision of Linked List		
○ Revision of Array based Stack/Queue		
○ Revision of Linked List based Stack/Queue		
✓ Day 9		

○ Examples of Stack		
○ Examples of Queue		
○ Examples of Linked List		
✓ Day 10		
○ Binary Tree		
✓ Day 11		
○ Revision of Binary Tree		
○ Binary Search		
○ Liner Search		
✓ Day 12		
○ Revision of Binary Tree		
○ Revision of Binary Search		
○ Revision of Linear Search		
✓ Day 13		
○ Shell Sort		
○ Revision of Binary Tree		
✓ Day 14		
○ Revision of Shell Sort		
○ Partitioning		
○ Quick Sort		
✓ Day 15		
○ Revision of Shell Sort		
○ Revision of Partitioning		
○ Revision of Quick Sort		
✓ Day 16		
○ Revision of Shell Sort		
○ Revision of Quick Sort		
○ Hash Table		
✓ Day 17		
○ Revision of Hash Table		
○ Heaps		
✓ Day 18		
○ Revision of Hash Table		
○ Revision of Heaps		
✓ Day 19		
○ Revision of Linked List		
○ Revision of Array based Stack/Queue		
○ Revision of Linked List based Stack/Queue		
○ Revision of Shell Sort		
○ Revision of Quick Sort		
✓ Day 20		
○ Revision of Binary Search		
○ Revision of Linear Search		
○ Revision of Hash Table		
○ Revision of Heaps		