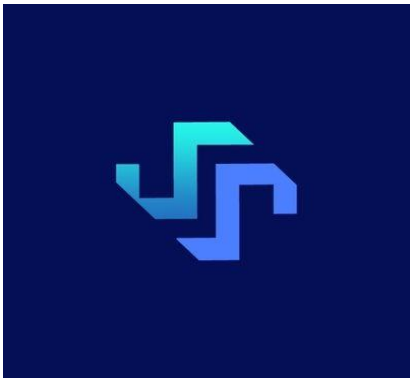

JALAN TECHNOLOGIES

This document contains two programming questions that you can solve with a programming language of your choice. We expect you to spend no more than 90 minutes on this assessment. Though we do not have any real way to measure that, we trust that you will honour our request.

If you have any question around any of the problem, please make reasonable assumptions and call out those assumptions in your response.

We would like you to share your response with us on codeshare.io.

Good luck.

Question 1:

Write a program that takes as input an array of numbers of length **N** and a number **p** (positions - p is greater than 0 and less than N) and a number **d** (direction - either 0 for left or 1 for right). The objective is to return the array shifted by **p** positions in **d** direction.

Example: For an input array `[1, 3, 2, 7, 4, 6]` with `p=3` and `d=0`
the expected result would be `[7, 4, 6, 1, 3, 2]` with the array shifted left by 3 positions.

Please share your code response on codeshare.io. In addition to this, please also specify the Time complexity (Big O notation) and Space complexity (Big O notation) for your solution as well as all possible test cases.

Question 2:

Please implement an alarm clock using Object Oriented Programming. **I**f you are not familiar or comfortable with object-oriented programming, we suggest you give this article a quick read to ensure you understand it before you attempt it.

The alarm clock should have the following features:

- It displays the current time
- A user can create any number of alarms by specifying the alarm time and day of the week and time when the alarm should alert
- A user can snooze an alarm maximum of 3 times at an interval of 5 minutes each.
- A user can delete an alarm

Please share your code response on codeshare.io.