

Please attempt below three questions & revert with solutions:

1. Given a list of English words (Ex: Ram, Mohan, Shyam, Ram, ...) , write a program to return top k (k is a positive integer less than list size) most occurring words. What is the space and time complexity of your solution? Would your solution change depending upon size of list or k?
2. Design a simple elevator system clearly showing all important classes you would create and their relationship. Functionality can be restricted to most basics i.e logic of elevator movement, maintenance & emergency situation handling.
3. How do we create Singletons using Enum? What is the advantage? Is there any scenario where you would not like to use Enum based Singletons?