# C++ Online A2

Write a C++ class "Vectors" encapsulating a one-dimensional array of 3D position vectors. The class should have the following member functions

1. A **constructor** which takes an integer argument (maximum number of vector in the array) and is responsible for necessary memory allocation (you should use malloc() and free() function for memory allocation).
2. A **destructor** with the responsibility of freeing memory
3. A **print** function with the responsibility of displaying all the vectors (one vector per row)
4. A **set** function which takes four integer arguments (index, x, y, z) with the responsibility of setting the values of an array element.
5. A **get** function which takes an integer argument (index) with the responsibility of returning the coordinates of a vector as an integer array (you can use integer pointer).
6. An **add** function which takes a vector using three integer arguments (x, y, z) that is added with each vector of the array encapsulated by the object accessing add function
7. Another overloaded **add** function which add all the vectors of the array encapsulated by the object accessing add function and return the resultant vector as an integer array (you can use integer pointer).