**SD1 Programming**

**Exercise Sheet 4**

1. Expand the ArrayScans application to include the following options
   1. Zero Base : which will adjust all the values in the collection by the same amount so that the smallest value will be zero
   2. Reverse : which will re-arrange the contents of the collection so that they are in reverse order
2. Alter the initial code in the ArrayScans application so that the collection is filled from a file called “Data.dat” .
3. Add suitable code to the ArrayScans application as in 2. so that the contents of the collection are re-written to the file before the application terminates.
4. Alter your solution to 3. so that the file is only re-written if necessary.