1. What is the difference between parallel arrays and multidimensional arrays?

Parallel arrays aren't a literal distinct manifestation of arrays, but rather a relational tie amongst lists. This signifies that they each are separate entities that require separate declarations and references in a program. They feature indirect association. On the other hand, multidimensional arrays contain elements in a single grouping that can be referenced to via the reference variable [storing the array] and an index couple and are not necessarily required to contain relational values (though all are undoubtedly related in the sense that they're encapsulated in the same array).

2. When you declare an array, are you also giving it a value?

This boils down to how the array is declared exactly. You can initialize arrays with specific values assigned to certain list indexes as you can define one with a specific length threshold, whether with objects or not.

3. What are the advantages and disadvantages of sequential search?

Information processing in arrays is an ease with the use of the intuitive sequential search, which utilizes linear cycling (another thing to mention, it's quite easy to implement). Items positioned roughly around the beginning or end of an array are found quickly via sequential search. Sequential search is, however, a liability with items positioned in indexes at the center of the item group, necessitating a search longer in comparison to other filtering systems. Sequential search practicality is effectively nullified when larger lists are introduced.