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**PART 1**

1. The four classes in the Java Collections frameworks are:
2. Sets
3. Queues
4. List
5. Map
6. Their characteristics:
7. Queues: A queue has a fixed number of sizes once elements have been added. It provides methods of collection interface such as insertion and deletion.
8. Sets: Sets do not allow indexing. Sets store elements in an unordered manner.
9. List: List stores element according to positions and can be accessed by indexing and searching. Lists are ordered collections.
10. Map: It is used to map keys to values. It allows for collection views

**PART 2**

1. The String represents the type of element that should be stored in the new ArrayList that is being created and makes sure the ArrayList contains the type String. The String represents the Key while the Integer represents the Value of which the Map function will map the String to the Integer provided there are no duplicate String (Key)
2. It is legal to assign the variable of type List to object of type ArrayList because the ArrayList is implementing the List. This means that the user can dynamically add objects to the List without being restricted.
3. The other known classes in Java that can implement the *List* interface are the ArrayList and the LinkedList. Both the ArrayList and the LinkedList can efficiently insert and remove multiple elements at an arbitrary point in the list (this is possible as they contain Strings). The other known classes in Java that can implement the *Map* interface is HashMap and HashTable. The HashMap and HashTable can hold values for integers mapped by the strings.
4. 