

### **f) Debugging note (if used)**

The provided program seems to have well-implemented functionalities with error handling for user input and informative messages. Here are some minor improvements and debugging notes:

- **Null Checks Added:** The `createList` function now includes null checks for user input to prevent potential exceptions. ([1] in the code)
- **Hash Search Implementation Fix:** The `hashSearch` function in `SortingAndSearching` class has a logical error. It was checking against null instead of the actual element at the hashed index. This has been fixed to compare the element retrieved from the hash table with the key. ([3] in the code)
- **HashTable Generics:** The `HashTable` class now uses generics (`<T extends Comparable<T>>`) to allow storing elements of any comparable type. ([6] in the code)
- **Hash Function using `hashCode()`:** The `hashFunction` method in both `SortingAndSearching` and `HashTable` now utilizes the `hashCode()` method of the element for a more reliable hashing mechanism. ([3] in the code)

### **g)Self-evaluation notes - list what parts of the project requirements are not implemented (if exist)**

- Implemented all the required parts of the project and all the requirements are met.