1. About Exception in Java:

An event that occurs while a program is being executed and that disrupts the normal flow of the instructions being carried out by the program is referred to as an exception.

* NullPointer Exception: When a variable that is not pointing to any object and refers to nothing or null is accessed in Java, the NullPointerException runtime exception is thrown.
* An InputMismatchException : is a runtime exception in Java thrown by a Scanner object when a retrieved token does not match the pattern for the expected type or when the token is out of range for the expected type. Both of these scenarios indicate that the retrieved token should not be used. Like if we are supposed to enter int, but we enter String or double or some other variable beside int.
* ArrayIndexOutOfBoundsException : The Java Runtime Environment throws the ArrayIndexOutOfBoundsException when a Java program accesses a non-existent place in a set. This happens when the requested array index is negative or greater than the array's size. Java arrays use zero-based indexing. Therefore the first element has zero, the last element has 1, and the nth element has n-1.
* ClassCastException : is a runtime exception that is thrown whenever we attempt to cast a class from one type to another in an incorrect manner. It is thrown to indicate that the code has attempted to cast an object to a related class, but the object already belongs to the related class and is not an instance of that class.