**10. 1. Differentiate error and exception**

**\* Exception**

The term exception is shorthand for the phrase exception event. It is an event that occurs during the execution of the program and interrupts the normal flow of program instructions. These are the errors that occur at compile time and run time. It occurs in the code written by the developers. It can be recovered by using the try-catch block and throws keyword. There are two types of exceptions i.e. checked and unchecked.

**Example:**

|  |
| --- |
| import java. util. Scanner;  public class Exception Example  {  public static void main(String args[])  {  Scanner sc = new Scanner(System.in);  System.out.print("Enter a number: ");  int number = sc.nextInt();  System.out.println("You have entered: "+number);  } |

}

**\*Error**

Errors are problems that mainly occur due to the lack of system resources. It cannot be caught or handled. It indicates a serious problem. It occurs at run time. These are always unchecked. An example of errors is OutOfMemoryError, LinkageError, AssertionError, etc. are the subclasses of the Error class.

**Example:**

|  |
| --- |
| public class ErrorExample {  public static void main(String args[]) {  recursiveDemo(10);  }  public static void recursiveDemo(int i) {  while(i!=0)  {  i=i+1;  recursiveDemo(i);  }  }} |