

Chapter 10

Exception handling in Java

1. Which program is error free and will always be executed successfully?
a) **compiled** b) interpreted c) debug d) coded
2. What is an indication of a problem that occurs during a program's execution which usually signals an error?
a) **Exception** b) compiled c) interpreted d) coded
3. Which of the following allows a program to continue executing as if no problem had been encountered or it may modify the use of the program before terminating in an uncontrolled manner?
a) **Exception handling** b) termination c) Exception code d) Error
4. What is called all kinds of error conditions in Java?
a) **Exceptions** b) Warm c) Compilation d) termination
5. What is used to convert source code into object code?
a) **compiler** b) Interpretation c) Termination d) debugging
6. If there is a syntax error in the program we will get a compilation error and will not be able to create thefile.
a) **class** b) java c) javac d) document
7. In how many categories, Error can be broadly classified?
a) Compile-time errors b) Run-time errors c) exe time d) **both a and b**
8. Which of the following are the common syntax errors in Java programs?
a) Missing semicolon, Use of undeclared variable
b) Wrong spellings of identifier or keyword
c) Mismatch of bracket d) **All of above**
9. Which type of errors are usually the mistakes of programmer?
a) **Compile-time errors** b) Run-time errors
c) Exe time d) None of above
10. If there are no syntax errors in the source code then the program will compile successfully and we will get a file.
a) **class** b) java c) javac d) document
11. Inexception, the exception will be generated during runtime in Java.
a) Compile-time b) **Run-time** c) Exe time d) None of above
12. In the field of Computer Science, indicates whether the command or a program is executed successfully or not.
a) "Exit code" b) "Exit status" c) Exit d) **Both a or b**

13. Which code indicates that the command has been executed successfully?
 a) **Code "0"** b) Exit 0 c) text 0 d) Code 1
14. Which code indicates that some problem has occurred while executing the command?
 a) Code "0" b) Exit 0 c) text 0 d) **Code "1"**
15. Which package contains a hierarchy of dealing with various exceptions?
 a) Java.lang b) java.io c) java.* d) **both a and b**
16. An attempt to access the array element with an index value that is outside the range of array uses Which of the following exception. Ex. A[13]=99;
 a) **ArrayIndexOutOfBoundsException** b) ArrayOutOfBound
 c) ArrayIndex d) ArrayIndOutBound
17. An attempt to divide any number by 0 (zero) uses which of the following exception. Ex. Int a=50/0;
 a) **ArithmeticException** b) ArrayIndexOutOfBound
 c) ArithException d) NumberFormatException
18. An attempt to use null in a case where an object is required uses Which of the following exception.
 Example - **String s=null; System.out.println(s.length());**
 a) **NullPointerException** b) ArithmeticException
 c) ArrayIndexOutOfBound d) All
19. An attempt to convert string to a number type uses which of the following exception?
 Example- **String s="xyz" int i=Integer.parseInt(s);**
 a) **NumberFormatException** b) AirthmeticException
 c) ArrayIndexOutOfBound d) NullPointer
20. An I/O error has occurred while printing uses which of the following exception?
 a) **PrinterIOException** b) NullPointerException
 c) ArrayIndexException d) NullPrinter
21. Which type of keywords are used to write an exception handler in Java?
 a) try b) catch c) finally d) **All of these**
22. Which keywords are used in the presence of exception which represent block of statements?
 a) try b) catch c) finally d) **All of these**
23. Which block contains the code that may give rise to one or more exceptions?
 a) **try** b) catch c) finally d) All of these
24. Which block contains the code that is intended to handle exceptions of a particular type that were created in the associated try block?
 a) try b) **catch** c) finally d) All of these

25. Which block is always executed before the program ends, regardless of whether any exceptions are generated in the try block or not?
 a) try b) catch c) **finally** d) All of these
26. Which of the following statement contains a block of statements within the curly braces?
 a) **try** b) catch c) finally d) All of these
27. The syntax for try block :

```
try
    { // set of statements that may generate one or more exceptions
    }
```
28. Which is the code that we want to monitor for exceptions, if a problem occurs during its execution, an exception is thrown?
 a) **try** b) catch c) finally d) All of these
29. Which block must immediately follow the try block?
 a) try b) **catch** c) finally d) All of these
30. Which block contains the code that is to be executed to handle an exception?
 a) try b) **catch** c) finally d) All of these
31. Which block is an exception handler, for a single try block there can be one or more catch blocks?
 a) try b) **catch** c) finally d) All of these
32. The syntax for catch block.

```
try
    { // set of statements that may generate one or more exceptions
    }
catch(Exception_Type Exception_object)
    { //code to handle the exception
    }
```
33. Which block contains a reference to an object which was created and thrown by the try block?
 a) try b) **catch** c) finally d) All of these
34. Which block is generally used to clean up at the end of executing a try block?
 a) try b) catch c) **finally** d) All of these
35. Which block is used when we want to be sure that some particular code is to run, no matter what exceptions are thrown within the associated try block?
 a) try b) catch c) **finally** d) All of these
36. Which block is widely used if a file needs to be closed or a critical resource is to be released at the completion of the program?
 a) try b) catch c) **finally** d) All of these

37. The syntax for finally block :

```
finally
    { // clean-up code to be executed last
      // statements within this block always get executed even
      // through if runtime errors terminate the program abruptly
    }
```

38. Which block must always be followed by at least one block that is either a catch block or a finally block?

- a) **try** b) catch c) finally d) All of these

39. Which block is associated with a particular try block and it must be located immediately following any catch blocks for the corresponding try block?

- a) try b) catch c) **finally** d) throw

40. Which keyword is used to explicitly throw an Exception object?

- a) try b) catch c) finally d) **throw**

41. Who created an exception object and was throwing it automatically?

- a) **JVM** b) JDK c) JRE d) UML

42. The syntax to throw an exception object is :

- a) **throw exception object;** b) throw object;
c) threw object d) THROW

43. Which cause can be used in a method declaration or constructor declaration to inform that the code within the constructor or method may throw an Exception?

- a) try b) catch c) throw d) **throws**

44. How many alternate approaches to handle exception created by a method? **Two**

- 1) Write a try-catch block within the method or a constructor that may generate an exception
2) involving a method or constructor within a try block

45. A throws clause can be used in a method declaration as follows :

method_Modifiers return_type method_Name(parameters)
throws Exception list....

```
{ .....  
    // body of the method  
}
```

46. Which exception classes are not provided by the Java for application specific exceptions?

- a) **Built-in** b) user define c) method d) constructor

47. Which method of the Scanner class helps in reading integer input from the console?

- a) **nextInt()** b) Int() c) nextint() d) NEXTINT()

48. What are the advantages of Exception Handling?

1. **It allows us to maintain normal flow of program. In the absence of exception handling, the flow of program is disturbed.**
- 2) **It allows writing separate error handling code from the normal code.**
- 3) **Error types can be grouped and differentiated within the program.**
- 4) **Assertions can be used to debug the program before deploying it to the clients.**
- 5) **It provides an easy mechanism to log various run-time errors while executing the program**

Textual Exercise

1. Which of the following refers to an error condition in object-oriented programming terminology?
a) anomaly b) abbreviation c) **exception** d) deviation
2. Which of the following is a correct word for all Java Exceptions?
a) **Runtime Exceptions** b) Throwables c) Errors d) Omissions
3. Which of the following statements is true?
a) Exceptions are more serious than Errors.
b) Errors are more serious than Exceptions.
c) Errors and Exceptions are equally serious.
d) **Exceptions and Errors are the same thing.**
4. Which of the following elements is not included in try block?
a) the keyword try b) **The keyword catch**
c) the curly braces d) statements that might cause Exceptions
5. Which of the following block handles or takes appropriate action when an Exception occurs ?
a) try b) **catch** c) throws d) handles
6. Which of the following should be within a catch block?
a) finally block b) Single statement that handles Exception
c) **any number of statements to handle Exception** d) Throws keyword
7. What will happen when a try block does not generate an Exception and you have included multiple catch block?
a) they all execute b) Only the first matching one executes
c) **no catch block executes** d) Only the first catch block executes
8. Which of the following is an advantage of using a try catch block?
a) Exceptional events are eliminated b) Exceptional events are reduced
c) **Exceptional events are integrated with the regular events**
d) Exceptional events are isolated from regular events

9. Which of the following methods can throw an Exception?
- a) methods with throws clause
 - b) methods with a catch block
 - c) **Methods with a try block**
 - d) methods with finally block
10. Which of the following is least important to know if you want to be able to use a method to its full potential?
- a) the method's return type
 - b) the type of arguments the method requires
 - c) **The number of statements within the method**
 - d) the type of Exceptions the method throws