**Java Question Bank**

1. What is Java?

2. What are the key features of Java?

3. Explain the difference between JDK, JRE, and JVM.

4. What is the difference between primitive data types and reference data types in Java?

5. How do you declare a variable in Java?

6. What are the different types of operators in Java?

7. Explain the difference between if-else and switch statements.

8. What is the purpose of the "static" keyword in Java?

9. How do you create and use arrays in Java?

10. What is the difference between a class and an object in Java?

11. How do you define and call a method in Java?

12. Explain the concept of inheritance in Java with an example.

13. What is polymorphism in Java? Provide an example.

14. How do you handle exceptions in Java using try-catch blocks?

15. What is the purpose of the "final" keyword in Java?

16. How do you implement a for loop in Java?

17. Explain the concept of encapsulation in Java.

18. How do you read user input from the console in Java?

19. What is the difference between a while loop and a do-while loop in Java?

20. How do you write and read data to/from a file in Java?

21. What is the purpose of the "this" keyword in Java?

22. Explain the concept of method overloading in Java with an example.

23. What is the role of the "new" keyword in Java?

24. How do you create and use a constructor in Java?

25. Explain the difference between checked and unchecked exceptions in Java.

26. What is the purpose of the "super" keyword in Java?

27. How do you implement a nested if-else statement in Java?

28. What is the role of the "break" keyword in Java?

29. Explain the concept of method overriding in Java with an example.

30. How do you use the "StringBuilder" class in Java for string manipulation?

31. What is the purpose of the "abstract" keyword in Java?

32. Explain the difference between static and instance variables in Java.

33. How do you implement a switch statement with multiple cases in Java?

34. What is the role of the "continue" keyword in Java?

35. How do you handle multiple exceptions in a single catch block in Java?

36. Explain the concept of interfaces in Java. Provide an example.

37. What is the purpose of the "try-with-resources" statement in Java?

38. How do you convert a string to an integer in Java?

39. Explain the concept of method chaining in Java.

40. What is the role of the "default" keyword in Java interfaces?

41. How do you create and use a package in Java?

42. Explain the concept of type casting in Java.

43. What is the purpose of the "equals" method in Java?

44. How do you implement a nested for loop in Java?

45. What is the role of the "finally" block in Java exception handling?

46. Explain the concept of method visibility modifiers in Java (public, private, protected).

47. How do you compare two strings in Java?

48. What is the purpose of the "instanceof" operator in Java?

49. How do you implement a while loop with a counter in Java?

50. Explain the concept of method parameters and arguments in Java.

51. What is the role of the "throw" keyword in Java exception handling?

52. How do you perform file I/O operations in Java using FileReader and FileWriter?

53. Explain the concept of the "static" block in Java.

54. What is the purpose of the "Math" class in Java? Provide an example.

55. How do you implement a do-while loop in Java?

56. What is the role of the "try-catch-finally" block in Java exception handling?

57. Explain the concept of method recursion in Java with an example.

58. How do you handle user-defined exceptions in Java?

59. What is the purpose of the "charAt" method in Java? Provide an example.

60. How do you implement a nested switch statement in Java?

61. Explain the concept of method parameters with the "final" keyword in Java.

62. What is the role of the "throws" keyword in Java exception handling?

63. How do you generate random numbers in Java using the "Random" class?

64. What is the purpose of the "compareTo" method in Java?

65. Explain the concept of the "break" statement in Java loops.

66. How do you implement a labeled break statement in Java?

67. What is the role of the "continue" statement in Java loops?

68. How do you perform bitwise operations in Java?

69. Explain the concept of method overriding with covariant return types in Java.

70. What is the purpose of the "hashCode" method in Java?

71. How do you implement a labeled continue statement in Java?

72. What is the role of the "switch" statement in Java?

73. How do you create and use an enum in Java?

74. Explain the concept of command-line arguments in Java.

75. What is the purpose of the "isEmpty" method in Java? Provide an example.

76. How do you implement a break statement with a label in Java?

77. What is the role of the "assert" keyword in Java?

78. How do you perform string concatenation in Java?

79. Explain the concept of inner classes in Java.

80. What is the purpose of the "startsWith" method in Java? Provide an example.

81. How do you implement a continue statement with a label in Java?

82. What is the role of the "transient" keyword in Java?

83. How do you perform type conversion in Java?

84. Explain the concept of anonymous classes in Java.

85. What is the purpose of the "endsWith" method in Java? Provide an example.

86. How do you implement a multidimensional array in Java?

87. What is the role of the "volatile" keyword in Java?

88. How do you perform string manipulation using regular expressions in Java?

89. Explain the concept of autoboxing and unboxing in Java.

90. What is the purpose of the "substring" method in Java? Provide an example.

91. How do you implement a jagged array in Java?

92. What is the role of the "strictfp" keyword in Java?

93. How do you perform error handling using try-catch blocks in Java?

94. Explain the concept of the "format" method in Java's String class.

95. What is the purpose of the "split" method in Java? Provide an example.

96. How do you implement a stack data structure in Java?

97. What is the role of the "assertion" in Java's assert statement?

98. How do you perform string manipulation using StringBuilder and StringBuffer classes?

99. Explain the concept of a queue data structure in Java.

100. What is the purpose of the "replaceAll" method in Java? Provide an example.