Java Program

1. First touches
   a. Hello World
   b. Using Program Arguments
   c. Access Modifiers
2. Data Types
   a. Primitives
      i. boolean - 1b
      ii. char - 2b
      iii. byte - 8b
      iv. short - 16b
      v. int - 32b
      vi. long - 64b
      vii. float - 32b
      viii. double - 64b
   b. Computer Number Systems
      i. Decimal
      ii. Binary
      iii. Octal
      iv. Hexadecimal
   c. Roman Numerals
      i.
   d. Java operators
      i. Assignment
      ii. Arithmetic Operators
      iii. Unary operators
      iv. Equality and Relational Operators
      v. instanceof Operator
      vi. Logical Operators
      vii. Ternary Operator
      viii. Java Operator Precedence
   e. Boolean algebra
      i. + sign is OR
         1. 0 + 0 = 0
         2. 0 + 1 = 1

3. 1 + 0 = 1
4. 1 + 1 = 1

ii. . sign is AND
1. 0 . 0 = 0
2. 0 . 1 = 0
3. 1 . 0 = 0
4. 1 . 1 = 1

iii. Logical NOT
1. NOT 0 = 1
2. NOT 1 = 0

iv. Logical NAND
1. 0 NAND 0 = 1
2. 0 NAND 1 = 1
3. 1 NAND 0 = 1
4. 1 NAND 1 = 0

v. Logical NOR
1. 0 NOR 0 = 1
2. 0 NOR 1 = 0
3. 1 NOR 0 = 0
4. 1 NOR 1 = 0

vi. Logical XOR
1. 0 XOR 0 = 0
2. 1 XOR 0 = 1
3. 0 XOR 1 = 1
4. 1 XOR 1 = 0
5. A XOR B = A . NOT B + NOT A . B

vii. Rules
1. A + 1 = 1
2. A + 0 = A
3. A . 1 = A
4. A . 0 = 0
5. A + A = A
6. A . A = A
7. NOT NOT A = A
8. A + NOT A = 1
9. A . NOT A = 0
10. A + B = B + A
11. A . B = B . A
12. NOT(A + B) = NOT A . NOT B

13. NOT(A.B) = NOT A + NOT B
14. A(B + C) = A.B + A.C
15. A + (B.C) = (A + B).(A+C)
16. A + (B + C) = (A + B) + C = A + B + C
17. A(B.C) = (A.B)C = A . B . C

    f. Bitwise operators
        i. | - bitwise OR
        ii. & - bitwise AND
        iii. ~ - bitwise complement
        iv. ^ - bitwise XOR
        v. << - signed left shift
        vi. >> - signed right shift
        vii. >>> - unsigned right shift

3. Input and Output
4. Conditionals
    a. If...else
    b. If...else...if - ladder
    c. switch
5. Loops
    a. For loop
    b. While loop
    c. Do...while loop
    d. Break
    e. Continue
6. Strings and Char Arrays
    a. Array
    b. String
        i. Char array to string
        ii. Immutable
        iii. Equals
        iv. equalsIgnoreCase
        v. length()
        vi. compareTo()
        vii. concat()
        viii. substring()
        ix. String format
    c. Test
7. Files

a. List dirs
b. Path
c. Files
    i. Check
    ii. Read lines
    iii. Copy
    iv. Delete
    v. Write