Core Java Assignment 1

1. Download and install oracle JDK on your machine and explore JDK home & JRE home directory.
   Reference:https://docs.oracle.com/javase/8/docs/technotes/tools/windows/jdkfiles.html
2. Copy src.zip and rt.jar on desktop. Extract them and observe the directories as well as files & their extensions.
3. Write a simple "Hello World!" application in any text editor and compile & run it from terminal.
4. Set path permanently in environment variable and test "Hello World!" application again.
   Reference:https://docs.oracle.com/javase/8/docs/technotes/tools/windows/jdkfiles.html
5. Use Java disassembler and its switches to observe bytecode.
6. Write a program to perform below operations on Boolean type to convert:
   a. boolean value into String
   b. boolean value into Boolean instance.
   c. String value into boolean value
   d. String value into Boolean instance.
   Reference:https://docs.oracle.com/javase/8/docs/api/java/lang/Boolean.html
7. Write a program to perform below operations on byte type to get:
   a. The number of bits used to represent a byte value
   b. The number of bytes used to represent a byte value
   c. The minimum value a byte
   d. The maximum value a byte
   Reference:https://docs.oracle.com/javase/8/docs/api/java/lang/Byte.html
8. Write a program to convert:
   a. byte value into String
   b. byte value into Byte instance.
   c. String instance into Byte instance.
9. Write a program to convert state of Byte instance into byte, short, int. long, float and double.
10. Write a program to perform below operations on char type to get:
    a. The number of bits used to represent a char value
    b. The number of bytes used to represent a char value
    c. The minimum value a char
    d. The maximum value a char
    Reference:https://docs.oracle.com/javase/8/docs/api/java/lang/Character.html
11. Accept character from command line and perform below operations. Here you can use charAt() method to extract character:
    a. Check whether entered character is letter or digit. If it is digit then print its values as well as code point.
    b. If it is character then check whether it is in lowercase? If it is in lowercase then convert it into upper case and print it well as its code point. If it is in uppercase

then convert it into lower case and print it well as its code point.

12. Write a program to perform below operations on short type to get:
    a. The number of bits used to represent a short value
    b. The number of bytes used to represent a short value
    c. The minimum value a short
    d. The maximum value a short

    Reference:https://docs.oracle.com/javase/8/docs/api/java/lang/Short.html

13. Write a program to convert:
    a. short value into String
    b. short value into Short instance.
    c. String instance into Short instance.
14. Write a program to convert state of Short instance into byte, short, int, long, float and double.
15. Write a program to perform below operations on int type to get:
    a. The number of bits used to represent a integer value
    b. The number of bytes used to represent a integer value
    c. The minimum value a integer
    d. The maximum value a integer

    Reference:https://docs.oracle.com/javase/8/docs/api/java/lang/Integer.html
16. Write a program to convert:
    a. int value into String
    b. int value into Integer instance.
    c. String instance into Integer instance.
    d. int value into binary, octal and hexadecimal string.
17. Write a program to convert state of Integer instance into byte, short, int, long, float and double.
18. Write a program to find minimum and maximum number as well as to add two integer numbers using methods of Integer.
19. Write a program to perform below operations on long type to get:
    a. The number of bits used to represent a long value
    b. The number of bytes used to represent a long value
    c. The minimum value a long
    d. The maximum value a long

    Reference:https://docs.oracle.com/javase/8/docs/api/java/lang/Long.html

20. Write a program to convert:
    a. long value into String
    b. long value into Long instance.
    c. String instance into Long instance.
    d. long value into binary, octal and hexadecimal string.
21. Write a program to convert state of Long instance into byte, short, int, long, float and double.

Core Java Assignment 1

22. Write a program to find minimum and maximum number as well as to add two long numbers using methods of Long.
23. Write a program to perform below operations on float type to get:
    a. The number of bits used to represent a float value
    b. The number of bytes used to represent a float value
    c. The minimum value a float
    d. The maximum value a float

    Reference:https://docs.oracle.com/javase/8/docs/api/java/lang/Float.html

24. Write a program to convert:
    a. float value into String
    b. float value into Float instance.
    c. String instance into Float instance.
    d. float value into hexadecimal string.
25. Write a program to convert state of Float instance into byte, short, int, long, float and double.
26. Write a program to find minimum and maximum number as well as to add two float numbers using methods of Float.
27. Write a program to perform below operations on Double type to get:
    a. The number of bits used to represent a double value
    b. The number of bytes used to represent a double value
    c. The minimum value a double
    d. The maximum value a double

    Reference:https://docs.oracle.com/javase/8/docs/api/java/lang/Double.html

28. Write a program to convert:
    a. double value into String
    b. double value into Double instance.
    c. String instance into Double instance.
    d. double value into binary, octal and hexadecimal string(Note: Here you can use doubleToLongBits() method along with methods of Long class).
29. Write a program to convert state of Double instance into byte, short, int, long, float and double.
30. Write a program to find minimum and maximum number as well as to add two double numbers using methods of Double.
31. Read the documentation of NumberFormatException and try to generate it in Java code.
    Reference:https://docs.oracle.com/javase/8/docs/api/java/lang/NumberFormatException.html
32. Write a program to accept and print full name as an argument from command line.
33. Pass integer, float and double value from command line. Parse it appropriately and perform arithmetic operations (+,-,*,/) on it. Here you can you switch case.
    Reference:https://docs.oracle.com/javase/tutorial/java/nutsandbolts/switch.html