1 Study the following code

class StringConversions {

public static void main(String args[]) {

int num = 19648;

System.out.println(num + " in binary: " +

Integer.toBinaryString(num));

System.out.println(num + " in octal: " +

Integer.toOctalString(num));

System.out.println(num + " in hexadecimal: " +

Integer.toHexString(num));

}

}

2

Read a program that reads a String and prints number of digits,characters and special characters.(Use Character class)

3

Write a java program that prints the range of values for an int data type.

4

Write a java program and write separate methods for data conversion.

* 1. To convert integers to String
  2. String to Integer,Double and float.
  3. boolean to String
  4. Convert base10 numbers to base2 and base16.

5 Study the code:

A // Demonstrate totalMemory(), freeMemory() and gc().

class MemoryDemo {

public static void main(String args[]) {

Runtime r = Runtime.getRuntime();

long mem1, mem2;

Integer someints[] = new Integer[1000];

System.out.println("Total memory is: " +

r.totalMemory());

mem1 = r.freeMemory();

System.out.println("Initial free memory: " + mem1);

r.gc();

mem1 = r.freeMemory();

System.out.println("Free memory after garbage collection: "

+ mem1);

for(int i=0; i<1000; i++)

someints[i] = new Integer(i); // allocate integers

mem2 = r.freeMemory();

System.out.println("Free memory after allocation: "

+ mem2);

System.out.println("Memory used by allocation: "

+ (mem1-mem2));

// discard Integers

for(int i=0; i<1000; i++) someints[i] = null;

r.gc(); // request garbage collection

mem2 = r.freeMemory();

System.out.println("Free memory after collecting" +

" discarded Integers: " + mem2);

}

}

B

class ExecDemo {

public static void main(String args[]) {

Runtime r = Runtime.getRuntime();

Process p = null;

try {

p = r.exec("notepad");

} catch (Exception e) {

System.out.println("Error executing notepad.");

}

}

}

**Using java.util**

1. Write a java program to print today’s date and present time on the screen one below the other.
2. Write a java program that reads date of joining of the employee and determines number of years and months of experience he/she has in that company.
3. Write a java program that reads date of manufacture ,date of expiry of product from the user as strings and determines if the product has expired or not.