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**Experiment 11**

# DSSS Code

**import** java.lang.\*; **import** java.io.\*; **import** java.util.\*;

**class** DSSS {

**public** **static** **void** main(String args[]) {

Scanner scanner = **new** Scanner(System.in);

System.out.print("Enter input string: ");

String inputString = scanner.next();

//System.out.print(inputString.charAt(1));

String barcaCode = "10110111000";

// Encryption

String eOutput = "";

**for**(**int** i=0; i<inputString.length(); i++) {

String a = getString(inputString.charAt(i)); eOutput = eOutput + getEXOR(a, barcaCode);

}

System.out.println("\nEncrypted message: "+eOutput+"\n");

// Decryption

ArrayList<String> enStrings = **new** ArrayList(); **for**(**int** i=0; i<eOutput.length(); i=i+11) { enStrings.add(eOutput.substring(i,i+11));

}

String dOutput = "";

**for**(**int** i=0; i<enStrings.size(); i++) {

String a = getEXOR(enStrings.get(i),barcaCode);

**if**(getNoOfOnes(a)>7) { dOutput = dOutput + "1"; } **else** **if**(getNoOfOnes(a)<3) { dOutput = dOutput + "0";

}

}

System.out.println("Decrypted message: "+dOutput+"\n\n");

}

/\* Method for getting 11111111111 or 00000000000 \*/

**public** **static** String getString(**char** a) {

**if**(a=='1') {

**return** "11111111111";

} **else** {

**return** "00000000000";

}

}

/\* Method for performing ex-or \*/

**public** **static** String getEXOR(String x, String y) {

String z = "";

**for**(**int** i = 0; i<x.length(); i++) {

**if**((x.charAt(i)=='1' && y.charAt(i)=='1') || (x.charAt(i)=='0' && y.charAt(i)=='0')) { z = z + "0";

} **else** **if** ((x.charAt(i)=='0' && y.charAt(i)=='1') ||

(x.charAt(i)=='1' && y.charAt(i)=='0')) {

z = z + "1";

}

} **return** z;

}

/\* Method for getting number of one's in string \*/ **public** **static** **int** getNoOfOnes(String a) {

**int** count = 0;

**for**(**int** i=0; i<a.length();i++) { **if**(a.charAt(i) == '1') { count = count + 1;

}

}

**return** count;

}

}

# Output



