**//Assignment 1-AND XOR Program /*Write a Java/C/C++/Python program that contains a string (char pointer) with a value \Hello World'. The program should AND or and XOR each character in this string with 127 and display the result.*/**

```
public class AND_XOR {

   public static void main(String s[]) {

      String Message = "HelloWorld";   // The string to work on for bitwise operations

      int var1 = 127;                // Initialize var1 to 127, which is used in bitwise operations

      int var2[] = new int[20];       // Array to store results of bitwise operations, with size 20


      // --- AND Operation Section ---

      System.out.println("----------- AND Values ----------");

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

         var2[i] = 127 & Message.charAt(i);  // Perform bitwise AND between 127 and the
Unicode value of the character

         System.out.println("127 & " + Message.charAt(i) + " is = " + var2[i]);

      }

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

         System.out.println("Binary value of " + var2[i] + " = " +

               Integer.toBinaryString(var2[i]));  // Print the binary representation of the result

      }


      // --- OR Operation Section ---

      System.out.println("----------- OR Values ----------");

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

         var2[i] = 127 | Message.charAt(i);  // Perform bitwise OR between 127 and the
Unicode value of the character
```

```
        System.out.println("127 OR " + Message.charAt(i) + " is = " + var2[i]);
      }
      for (int i = 0; i < Message.length(); i++) {
        System.out.println("Binary value of " + var2[i] + " = " +
            Integer.toBinaryString(var2[i]));  // Print the binary representation of the result
      }

      // --- XOR Operation Section ---
      System.out.println("---------- XOR Values ----------");
      for (int i = 0; i < Message.length(); i++) {
        var2[i] = 127 ^ Message.charAt(i);  // Perform bitwise XOR between 127 and the
Unicode value of the character
        System.out.println("127 XOR " + Message.charAt(i) + " is = " + var2[i]);
      }
      for (int i = 0; i < Message.length(); i++) {
        System.out.println("Binary value of " + var2[i] + " = " +
            Integer.toBinaryString(var2[i]));  // Print the binary representation of the result
      }
   }
}
```

----------OUTPUT----------

---------- AND Values ----------

127 & 72 is = 72

127 & 101 is = 101

127 & 108 is = 108

...

Binary value of 72 = 1001000

Binary value of 101 = 1100101

Binary value of 108 = 1101100

...

---------- OR Values ----------

127 OR 72 is = 127

127 OR 101 is = 127

127 OR 108 is = 127

...

Binary value of 127 = 1111111

...

---------- XOR Values ----------

127 XOR 72 is = 55

127 XOR 101 is = 26

127 XOR 108 is = 19

...

Binary value of 55 = 110111

Binary value of 26 = 11010

Binary value of 19 = 10011

...