

Hacking Quiz - Extra Credit

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Base on the HTML code of the quiz.

https://faculty.uca.edu/vparuchuri/4315/4315_quiz1.htm

I found out that the answer for all the questions have been encoded into the list of number that has been assigned to ansMap array. Moreover, there is a function name TranslateAnswer() that has a job to translate those encrypted answers in to the the letter answer. By cracking this codes I can translate the coded answer into the correct answer. I used Java to do the translation for me. First, I store all the answer into the array of strings, then convert those letters from the base 16 into integer of base 10. Next, I convert those numbers of base 10 into letters in ASCII.

```
ansMap[0] = '55';
ptsMap[0] = 1;
ansMap[1] = '44';
ptsMap[1] = 1;
ansMap[2] = '47';
ptsMap[2] = 1;
ansMap[3] = '46';
ptsMap[3] = 1;
ansMap[4] = '46';
ptsMap[4] = 1;
ansMap[5] = '42';
ptsMap[5] = 1;
ansMap[6] = '45';
ptsMap[6] = 1;
ansMap[7] = '4e';
ptsMap[7] = 1;
ansMap[8] = '48';
ptsMap[8] = 1;
ansMap[9] = '4e';
ptsMap[9] = 1;
```

```
function TranslateAnswer(s, answerIndex)
{
    var value;
    var newString;
    var code;
    var i;

    value = (answerIndex % 31) + 1;
    newString = "";
    for (i=0; i < s.length; i += 2) {
        code = parseInt(s.substring(i, i + 2), 16);
        newString += String.fromCharCode(code ^ value);
    }

    return(newString);
}
```

```
public class ConverttoAscii {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        String[] array = {"55","44","47","46","46","42","45","4e","48","4e"};
        String newString = "";
        for (int i=0; i<10; i++) {
            int value = (i % 31) + 1;
            int code = Integer.parseInt(array[i], 16);
            newString += "Question " + (i+1) + " "+Character.toString((char)
            (code^value)) + "\n";
        }
    }
}
```

```
    }  
    System.out.println(newString);  
}
```

The output of the code has been giving me the answer for all questions in the quiz.

```
Question 1 T  
Question 2 F  
Question 3 D  
Question 4 B  
Question 5 C  
Question 6 D  
Question 7 B|  
Question 8 F  
Question 9 A  
Question 10 D
```