**Palindrome Checker**

Code

function palindrome(str) {

var re = /[\W\_]/g;

var lowRegStr = str.toLowerCase().replace(re, '');

var reverseStr = lowRegStr.split('').reverse().join('');

return reverseStr === lowRegStr;

}

palindrome("A man, a plan, a canal. Panama");

**Roman Numeral Converter**

**Code**

function convertToRoman(num) {

var roman = {

M: 1000,

CM: 900,

D: 500,

CD: 400,

C: 100,

XC: 90,

L: 50,

XL: 40,

X: 10,

IX: 9,

V: 5,

IV: 4,

I: 1

};

var str = '';

for (var i of Object.keys(roman)) {

var q = Math.floor(num / roman[i]);

num -= q \* roman[i];

str += i.repeat(q);

}

return str;

}

**Caecars cipher**

Code

function rot13(str) {

var alphabets =['A','B','C','D','E','F','G','H','I','J','K','L','M','N','O','P','Q','R','S','T','U','V','W','X','Y','Z'," ", "-", "\_", ".", "&","?", "!", "@", "#", "/"];

var alphabets13 = ['N','O','P','Q','R','S','T','U','V','W','X','Y','Z','A','B','C','D','E','F','G','H','I','J','K','L','M', " ", "-", "\_", ".", "&","?", "!", "@", "#", "/"];

var resultStr = [];

for(let i=0; i<str.length; i++){

for(let j =0; j<alphabets.length; j++){

if(str[i] === alphabets[j]){

resultStr.push(alphabets13[j]);

}

}

}

return resultStr.join("");

};

rot13("SERR CVMMN!");

telephone number validator

Code

function telephoneCheck(str) {

var isphone = /^(1\s|1|)?((\(\d{3}\))|\d{3})(\-|\s)?(\d{3})(\-|\s)?(\d{4})$/.test(str);

return isphone;

}

telephoneCheck("1 555 555 5555");

Cash register

Code

var denom = [

{ name: "ONE HUNDRED", val: 100.0 },

{ name: "TWENTY", val: 20.0 },

{ name: "TEN", val: 10.0 },

{ name: "FIVE", val: 5.0 },

{ name: "ONE", val: 1.0 },

{ name: "QUARTER", val: 0.25 },

{ name: "DIME", val: 0.1 },

{ name: "NICKEL", val: 0.05 },

{ name: "PENNY", val: 0.01 }

];

function checkCashRegister(price, cash, cid) {

var output = { status: null, change: [] };

var change = cash - price;

var register = cid.reduce(

function (acc, curr) {

acc.total += curr[1];

acc[curr[0]] = curr[1];

return acc;

},

{ total: 0 }

);

if (register.total === change) {

output.status = "CLOSED";

output.change = cid;

return output;

}

if (register.total < change) {

output.status = "INSUFFICIENT\_FUNDS";

return output;

}

var change\_arr = denom.reduce(function (acc, curr) {

var value = 0;

while (register[curr.name] > 0 && change >= curr.val) {

change -= curr.val;

register[curr.name] -= curr.val;

value += curr.val;

change = Math.round(change \* 100) / 100;

}

if (value > 0) {

acc.push([curr.name, value]);

}

return acc;

}, []);

if (change\_arr.length < 1 || change > 0) {

output.status = "INSUFFICIENT\_FUNDS";

return output;

}

output.status = "OPEN";

output.change = change\_arr;

return output;

}

console.log(checkCashRegister(19.5, 20, [["PENNY", 1.01], ["NICKEL", 2.05], ["DIME", 3.1], ["QUARTER", 4.25], ["ONE", 90], ["FIVE", 55], ["TEN", 20], ["TWENTY", 60], ["ONE HUNDRED", 100]]));