```
ninja.wallets.vanitywallet = {
    isOpen: function () {
        return
(document.getElementById("vanitywallet").className.indexOf("selected")
!= -1);
    },

      open: function () {
            document.getElementById("vanityarea").style.display =
"block";
      },

      close: function () {
            document.getElementById("vanityarea").style.display =
"none";
            document.getElementById("vanitystep1area").style.display =
"none";
            document.getElementById("vanitystep2area").style.display =
"none";

      document.getElementById("vanitystep1icon").setAttribute("class",
"more");

      document.getElementById("vanitystep2icon").setAttribute("class",
"more");
      },

      generateKeyPair: function () {
            var key = new Bitcoin.ECKey(false);
            var publicKey = key.getPubKeyHex();
            var privateKey = key.getBitcoinHexFormat();
            document.getElementById("vanitypubkey").innerHTML =
publicKey;
            document.getElementById("vanityprivatekey").innerHTML =
privateKey;
            document.getElementById("vanityarea").style.display =
"block";
            document.getElementById("vanitystep1area").style.display =
"none";
      },

      addKeys: function () {
            var privateKeyWif =
ninja.translator.get("vanityinvalidinputcouldnotcombinekeys");
            var bitcoinAddress =
ninja.translator.get("vanityinvalidinputcouldnotcombinekeys");
            var publicKeyHex =
ninja.translator.get("vanityinvalidinputcouldnotcombinekeys");
            try {
                  var input1KeyString =
document.getElementById("vanityinput1").value;
                 var input2KeyString =
document.getElementById("vanityinput2").value;

                 // both inputs are public keys
                 if
(ninja.publicKey.isPublicKeyHexFormat(input1KeyString) &&
ninja.publicKey.isPublicKeyHexFormat(input2KeyString)) {
                       // add both public keys together
                       if
(document.getElementById("vanityradioadd").checked) {
                             var pubKeyByteArray =
ninja.publicKey.getByteArrayFromAdding(input1KeyString,
input2KeyString);
                             if (pubKeyByteArray == null) {

      alert(ninja.translator.get("vanityalertinvalidinputpublickeysmatc
h"));
                             }
                             else {
                                   privateKeyWif =
ninja.translator.get("vanityprivatekeyonlyavailable");
                                   bitcoinAddress =
ninja.publicKey.getBitcoinAddressFromByteArray(pubKeyByteArray);
                                   publicKeyHex =
ninja.publicKey.getHexFromByteArray(pubKeyByteArray);
                             }
                       }
                       else {

      alert(ninja.translator.get("vanityalertinvalidinputcannotmultiple
"));
                       }
                 }
                 // one public key and one private key
                 else if
((ninja.publicKey.isPublicKeyHexFormat(input1KeyString) &&
ninja.privateKey.isPrivateKey(input2KeyString))
                                         ||
(ninja.publicKey.isPublicKeyHexFormat(input2KeyString) &&
ninja.privateKey.isPrivateKey(input1KeyString))
                                   ) {
                       privateKeyWif =
ninja.translator.get("vanityprivatekeyonlyavailable");
                       var pubKeyHex =
(ninja.publicKey.isPublicKeyHexFormat(input1KeyString)) ?
input1KeyString : input2KeyString;
                       var ecKey =
(ninja.privateKey.isPrivateKey(input1KeyString)) ? new
Bitcoin.ECKey(input1KeyString) : new Bitcoin.ECKey(input2KeyString);
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                       // add
                       if
(document.getElementById("vanityradioadd").checked) {
                             var pubKeyCombined =
ninja.publicKey.getByteArrayFromAdding(pubKeyHex,
ecKey.getPubKeyHex());
                       }
                       // multiply
                       else {
                             var pubKeyCombined =
ninja.publicKey.getByteArrayFromMultiplying(pubKeyHex, ecKey);
                       }
                       if (pubKeyCombined == null) {

      alert(ninja.translator.get("vanityalertinvalidinputpublickeysmatc
h"));
                       } else {
                             bitcoinAddress =
ninja.publicKey.getBitcoinAddressFromByteArray(pubKeyCombined);
                             publicKeyHex =
ninja.publicKey.getHexFromByteArray(pubKeyCombined);
                       }
                 }
                 // both inputs are private keys
                 else if
(ninja.privateKey.isPrivateKey(input1KeyString) &&
ninja.privateKey.isPrivateKey(input2KeyString)) {
                       var combinedPrivateKey;
                       // add both private keys together
                       if
(document.getElementById("vanityradioadd").checked) {
                             combinedPrivateKey =
ninja.privateKey.getECKeyFromAdding(input1KeyString, input2KeyString);
                       }
                       // multiply both private keys together
                       else {
                             combinedPrivateKey =
ninja.privateKey.getECKeyFromMultiplying(input1KeyString,
input2KeyString);
                       }
                       if (combinedPrivateKey == null) {

      alert(ninja.translator.get("vanityalertinvalidinputprivatekeysmat
ch"));
                       }
                       else {
                             bitcoinAddress =
combinedPrivateKey.getBitcoinAddress();
                             privateKeyWif =
combinedPrivateKey.getBitcoinWalletImportFormat();
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                              publicKeyHex =
combinedPrivateKey.getPubKeyHex();
                        }
                  }
            } catch (e) {
                  alert(e);
            }
            document.getElementById("vanityprivatekeywif").innerHTML =
privateKeyWif;
            document.getElementById("vanityaddress").innerHTML =
bitcoinAddress;
            document.getElementById("vanitypublickeyhex").innerHTML =
publicKeyHex;
            document.getElementById("vanitystep2area").style.display =
"block";

      document.getElementById("vanitystep2icon").setAttribute("class",
"less");
      },

      openCloseStep: function (num) {
            // do close
            if (document.getElementById("vanitystep" + num +
"area").style.display == "block") {
                  document.getElementById("vanitystep" + num +
"area").style.display = "none";
                  document.getElementById("vanitystep" + num +
"icon").setAttribute("class", "more");
            }
            // do open
            else {
                  document.getElementById("vanitystep" + num +
"area").style.display = "block";
                  document.getElementById("vanitystep" + num +
"icon").setAttribute("class", "less");
            }
      }
};
```