| 일반 소스 공유 | >

RSA Encryption

OtakoidTony 챗봇 고수 1:1 채팅
2019.11.23. 20:03 조회 74


```
stringToUnicode = function(str) {
    if (!str) return false; // Escaping if not exist
    var unicode = '';
    test = new Array;
    var ascii = '';
    for (var i = 0, l = str.length; i < l; i++) {
        ascii = str[i].charCodeAt(0).toString(10);
        test.push(ascii);
    };
    return test;
}

function encrypt(str, e, N){
    var encArray = stringToUnicode(str);
    var i;
    for (i in encArray){
        encArray[i]=Math.pow(parseInt(encArray[i]), e)%N;
    }
    return encArray;
}

function decrypt(arr, d, N){
    var i;
    for (i in arr){
        arr[i]=String.fromCharCode(Math.pow(arr[i], d)%N);
    }
    return arr;
}

function get_private_key(e, tot) {
    var v = 1;
    var d = e;
    var u = (e == 1);
    var t = 1 - u;
    if (t == 1) {
        var c = tot % e;
        u = Math.floor(tot / e);
        while (c != 1 && t == 1) {
            var q = Math.floor(d / c);
            d = d % c;
            v = v + q * u;
            t = (d != 1);
            if (t == 1) {
                q = Math.floor(c / d);
                c = c % d;
                u = u + q * v;
            }
        }
        u = v * (1 - t) + t * (tot - u);
    }
    return u;
}

function gcd(x, y) { // https://www.w3resource.com/javascript-exercises/javascript-math-exercis
    if ((typeof x !== 'number') || (typeof y !== 'number'))
        return false;
```

```
    x = Math.abs(x);
    y = Math.abs(y);
    while (y) {
        var t = y;
        y = x % y;
        x = t;
    }
    return x;
}

function isPrime(n, k) {
    // Corner cases
    if (n <= 1 || n == 4) return false;
    if (n <= 3) return true;
    var a = 0;
    while (k > 0) {
        // Pick a randomly in the range [2, n - 2]
        a = 2 + Math.floor(Math.random() * (n - 4));
        // Fermat's little theorem
        if (Math.pow(a, n - 1) % n != 1) {
            return Math.pow(a, n - 1) % n;
        }
        k = k - 1;
    }
    return true;
}

function totient(p, q) {
    return (p - 1) * (q - 1);
}

/*
RSA 알고리즘 개념 및 구현(python)
https://wkdtjsgur100.github.io/RSA-algorithm/
*/
function get_public_key(totient) {
    var e = 2;
    while (e < totient && gcd(e, totient) != 1) {
        e += 1;
    }
    return e;
}

function randomItem(a) {
    return a[Math.floor(Math.random() * a.length)];
}

const primes = [107, 109, 113, 127, 131, 137, 139, 149, 151, 157, 163, 167, 173, 179, 181, 191,
             227, 229, 233, 239, 241, 251, 257, 263, 269, 271, 277, 281, 283, 293, 307, 311, 31
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             751, 757, 761, 769, 773, 787, 797, 809, 811, 821, 823, 827, 829, 839, 853, 857, 85
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            17239, 17257, 17291, 17293, 17299, 17317, 17321, 17327, 17333, 17341, 17351, 1735

function response(room, msg, sender, isGroupChat, replier, ImageDB, packageName, threadId) {
    if(msg=="Bot!GetKeypair"){
        var usingPrimes = primes;
        var p = randomItem(usingPrimes);
        usingPrimes.splice(usingPrimes.indexOf(p), 1);
        var q = randomItem(usingPrimes);
        var tot = totient(p, q);
        var n = p * q;
        var publicKey = get_public_key(tot);
        var privateKey= get_private_key(publicKey, tot);
        replier.reply("[Public Key]\n"+"n="+n.toString()+" "+"Encrypt Key: "+publicKey.toString
        replier.reply("[Private Key]\n"+"n="+n.toString()+" "+"Decrypt Key: "+privateKey.toStri
    }
}
```

OtakoidTony님의 게시글 더보기 >

좋아요 **1** 댓글 **3** 공유 | 신고

댓글 등록순 최신순

댓글알림

srfu

자바는 착해서 API쓰면 됩니다

2019.11.23. 21:04 답글쓰기

odosk

ㄹㅇ

2019.11.24. 04:18 답글쓰기

Bunked

감사합니다 잘 이용하겠습니다

2020.01.07. 00:41 답글쓰기

Hibot

댓글을 남겨보세요

등록

글쓰기 답글 목록 ▲ TOP

'| 일반 소스 공유 |' 게시판 글

이 게시판 새글 구독하기

파이썬 인공신경망과 자바스크립트 인공신경망 [12]	OtakoidTony	2019.11.23.
내가 처음으로 봇에 추가했던 기능. [12]	OtakoidTony	2019.11.23.
RSA Encryption [3]	OtakoidTony	2019.11.23.
클래시로얄 전적 Jsoup [4]	doami2005	2019.11.23.
배그전적 [5]	흐미	2019.11.23.

1 2 3 전체보기

이 카페 인기글

틱택토 (카카오링크 적용)

도미 doami2005
♡1 💬2

반가워요.

천방지축하연
♡0 💬4

타 메신저 사용시 무한반복

NaN
♡0 💬1

글자의 개수가 넘어가면 자르기 질문

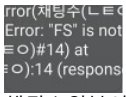
흑까마귀
♡0 💬5

[치***, 한**] 님 강제 탈퇴

AlphaDo
♡1 💬2

오픈이발 괴롭히기(메봇R)

ERROR
♡0 💬7



채팅순위봇이 갑자기 안되네요..ㅠ

eval 질문

Kiri
♡0 💬5

카톡방 나가기

hajuhee01
♡0 💬15

1 2 3 4 5