爬虫 - JS 逆向 01 - 新X盟解密

什么是逆向：

逆向工程（又称逆向技术），是一种产品设计技术再现过程，即对一项目标产品进行逆向分析及研究，从而演绎并得出该产品的处理流程、组织结构、功能特性及技术规格等设计要素，以制作出功能相近，但又不完全一样的产品。逆向工程源于商业及军事领域中的硬件分析。其主要目的是在不能轻易获得必要的生产信息的情况下，直接从成品分析，推导出产品的设计原理。

逆向工程可能会被误认为是对知识产权的严重侵害，但是在实际应用上，反而可能会保护知识产权所有者。例如在集成电路领域，如果怀疑某公司侵犯知识产权，可以用逆向工程技术来寻找证据。

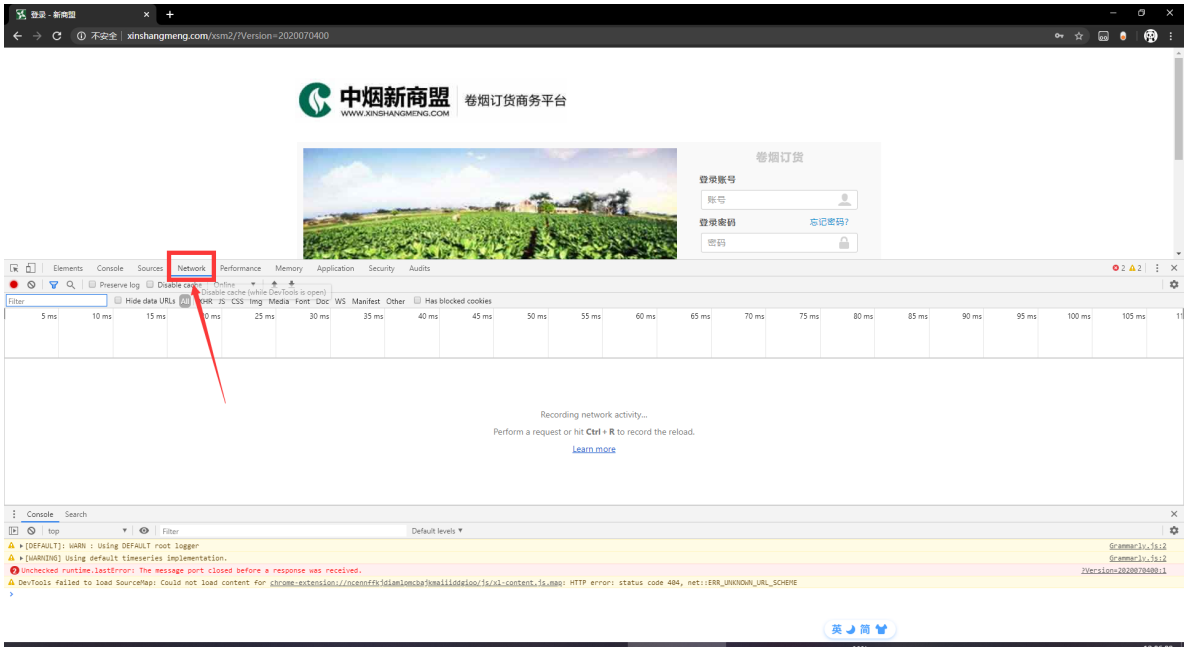
爬虫 - JS 逆向 01 - 新X盟解密 定期练习 定期提高

网站地址：

1.观察

需要账号、密码(废话)

2.打开开发者工具(右键 或者 F12)

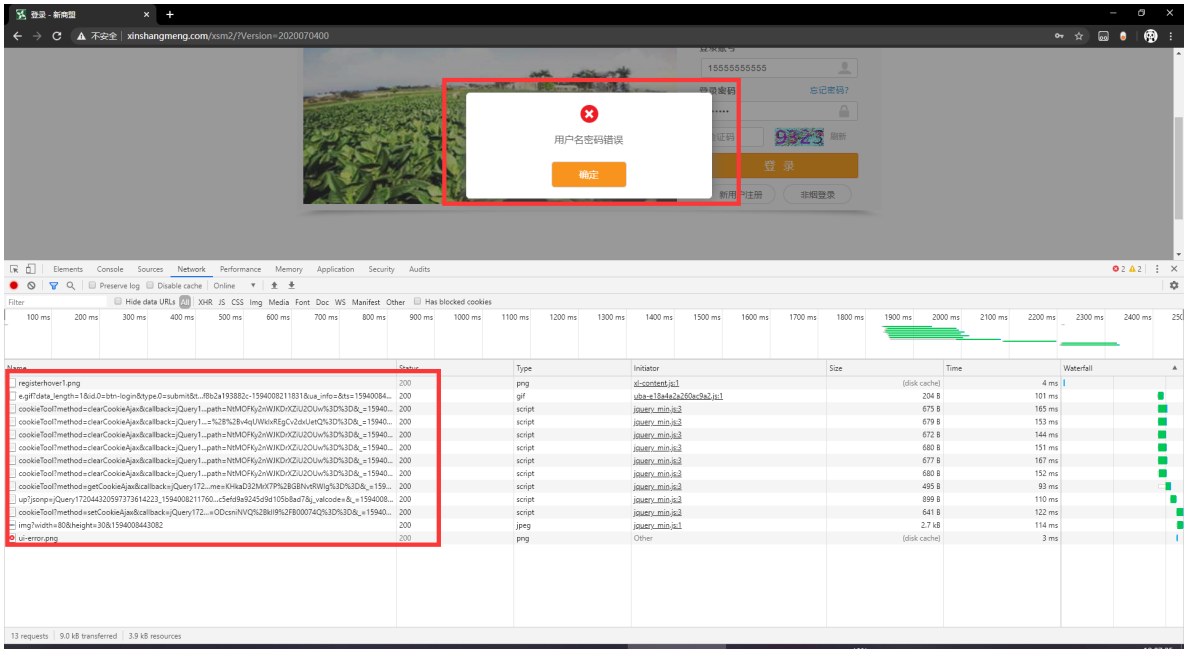


输入账号 155 5555 5555

输入密码 123456

这样方便我们在特征中检索到

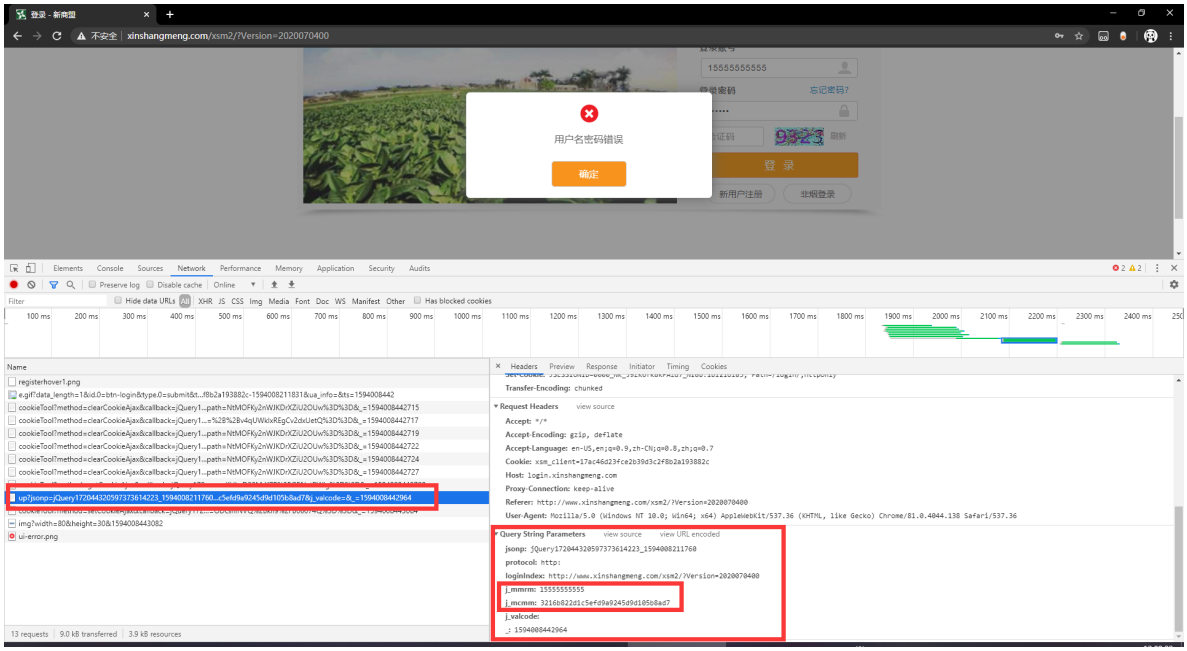
点击登录



Request URL:

http://login.xinshangmeng.com/login/users/dologin/up?jsonp=jQuery172044320597373614223_1594008211760&protocol=http%3A&loginIndex=http%3A%2F%2Fwww.xinshangmeng.com%2Fxsm2%2F%3FVersion%3D2020070400&j_mmrm=15555555555&j_mcmm=3216b822d1c5efd9a9245d9d105b8ad7&j_valcode=&_=1594008442964

这里捕捉到了发送的请求 我们逐个查看 寻找登录的包



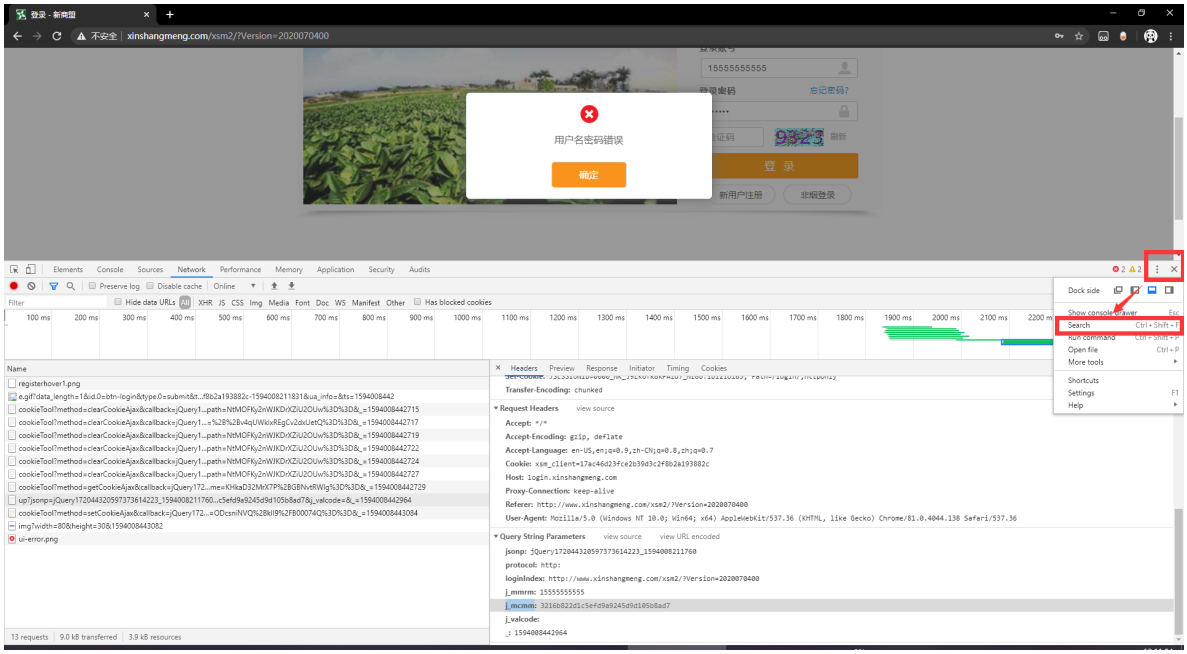

```
jsonp: jQuery172044320597373614223_1594008211760
protocol: http:
loginIndex: http://www.xinshangmeng.com/xsm2/?Version=2020070400
j_mmrm: 15555555555
j_mcmm: 3216b822d1c5efd9a9245d9d105b8ad7
j_valcode:
_: 1594008442964
```

经过查看 我们很容易看出 这个包是用来登录的包

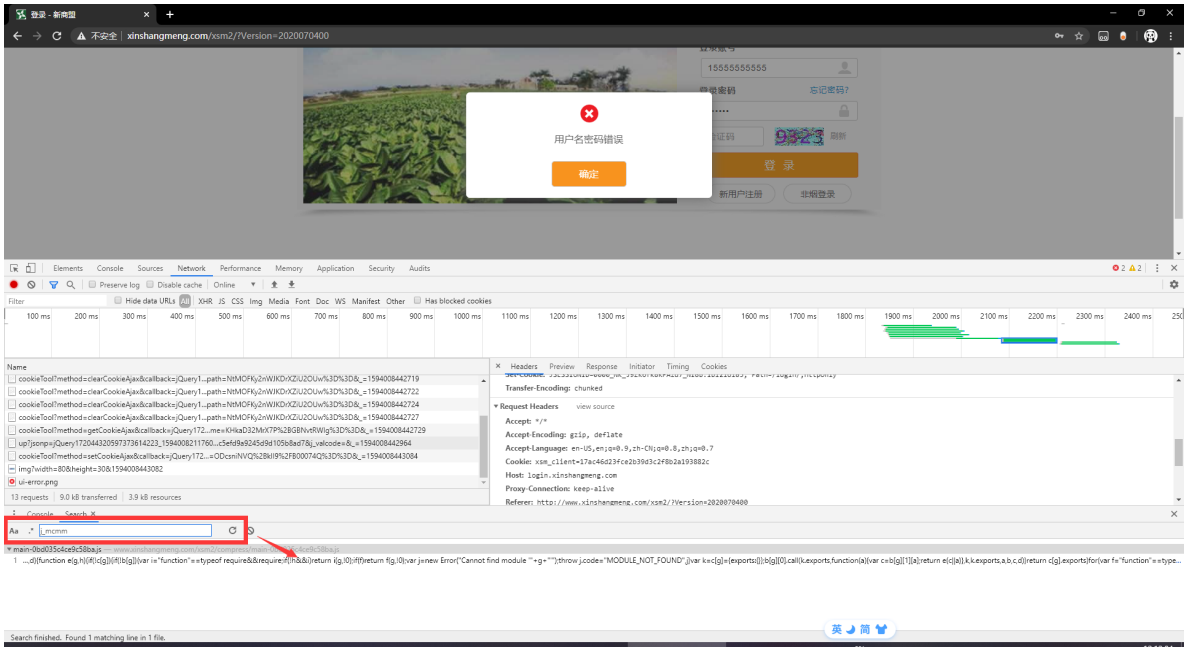
这里j_mmrm显然就是我们输入的账号

那么猜测一下 j_mcmm 便是我们的密码 不过我们输入的是123456 这里却是一串码 说明它背后进行了加密

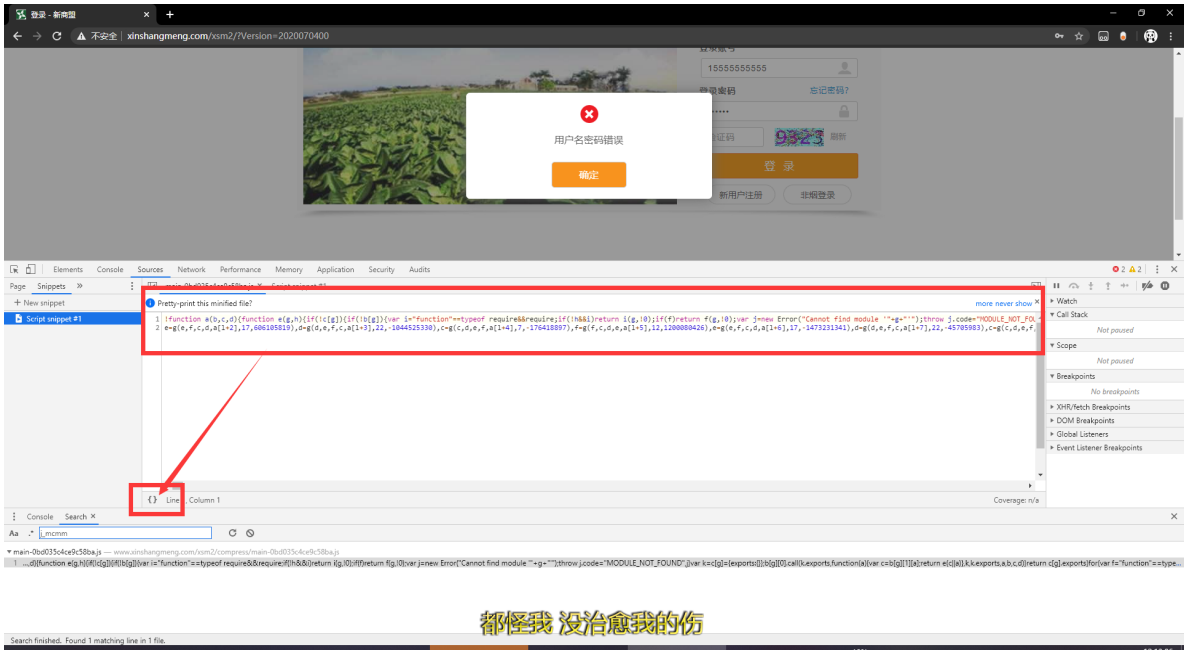
3.进行检索 查找加密方法



如图即可打开全局搜索框 接着我们搜索参数 j_mcmm



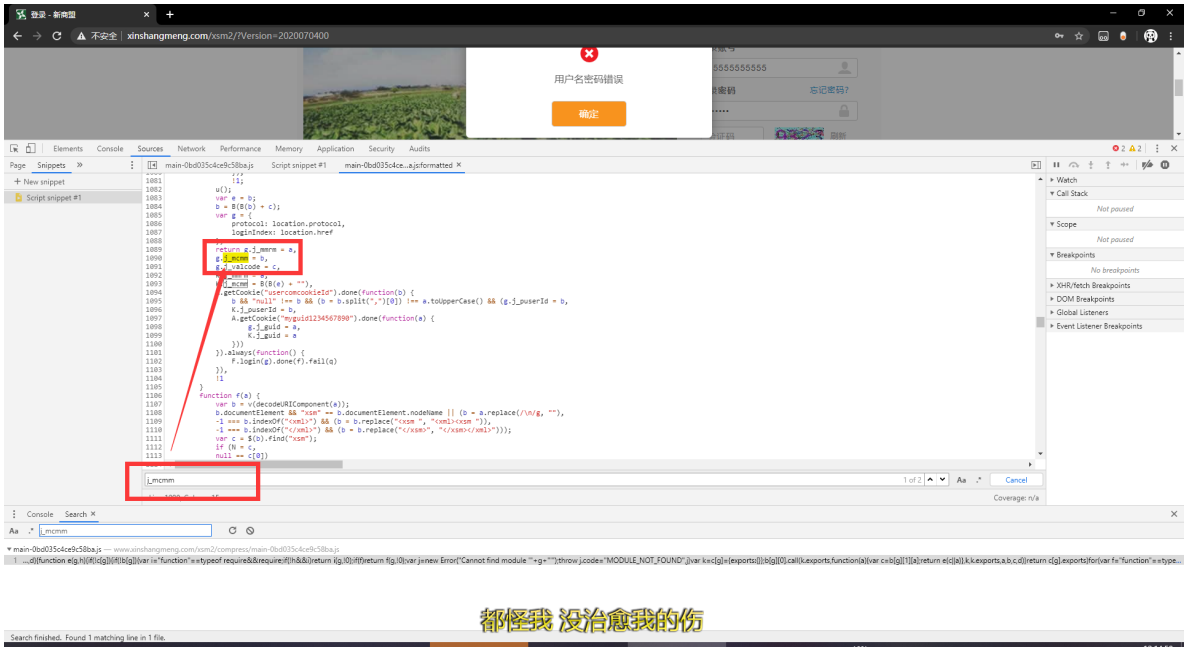
我们输入进行回车 搜索到一个 这个结果很理想 我们直接点进去



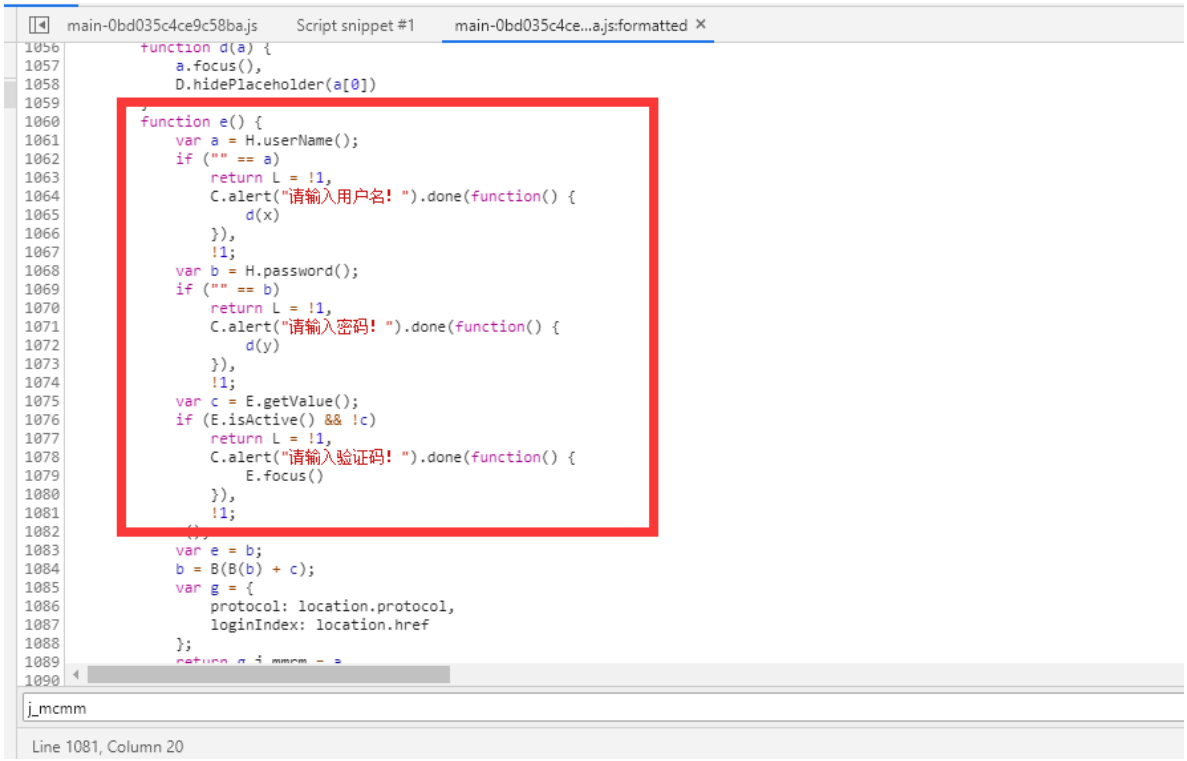
这里的代码被折叠了 我们点击{}便可以格式代码

接着我们ctrl+F启动搜索 搜索刚才的 j_mcmm 便可以定位到参数的位置

```
return g.j_mmrm = a,
            g.j_mcmm = b,
            g.j_valcode = c,
            K.j_mmrm = a,
            K.j_mcmm = B(B(e) + ""),
            A.getCookie("usercomcookieId").done(function(b) {
                b && "null" !== b && (b = b.split(",")[0]) !== a.toUpperCase()
&& (g.j_puserId = b,
                K.j_puserId = b,
                A.getCookie("myguid1234567890").done(function(a) {
                    g.j_guid = a,
                    K.j_guid = a
                }))
```



我们稍微的预览一下代码 简单的看下代码的逻辑

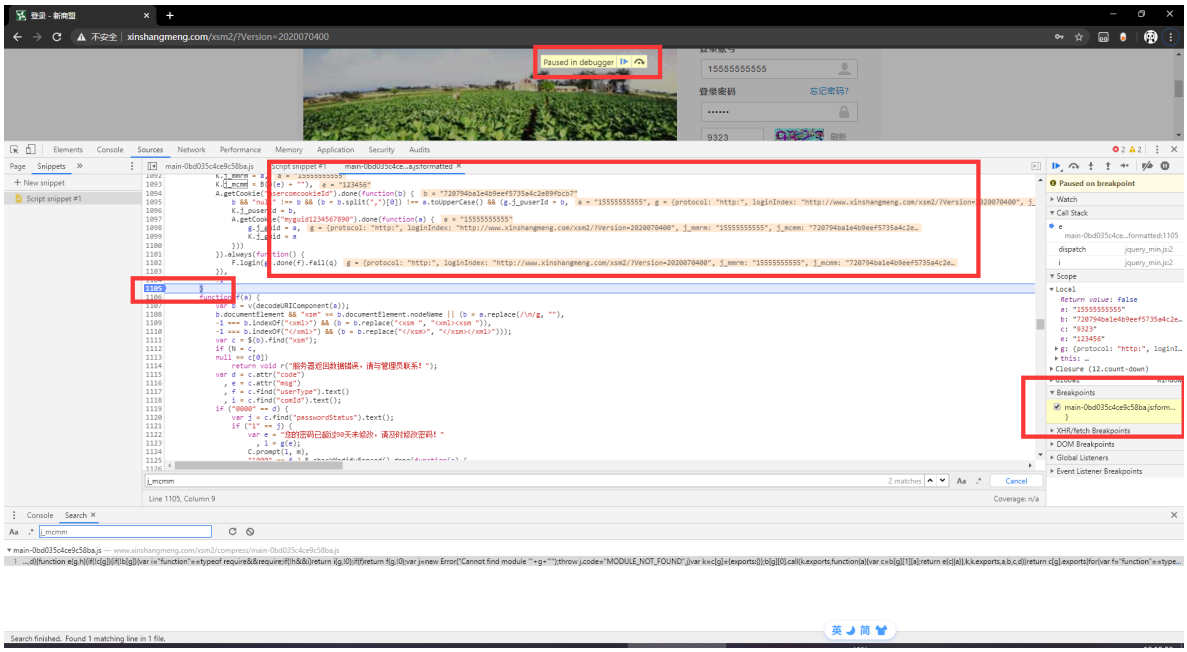


```
var a = H.userName();
            if ("" == a)
                return L = !1,
                C.alert("请输入用户名! ").done(function() {
                    d(x)
                }),
                !1;
            var b = H.password();
            if ("" == b)
                return L = !1,
                C.alert("请输入密码! ").done(function() {
                    d(y)
                }),
                !1;
            var c = E.getValue();
```

```
            if (E.isActive() && !c)
                return L = !1,
                C.alert("请输入验证码！").done(function() {
                    E.focus()
                }),
                !1;
            u();
```

这里是对账户密码验证码是否为空进行判断 所以加密应该在下面 我们在函数末尾打上一个断点（点击左侧的数字 就可以在这行下一个断点）

接着我们再登录一次 程序运行到这里便会停下来



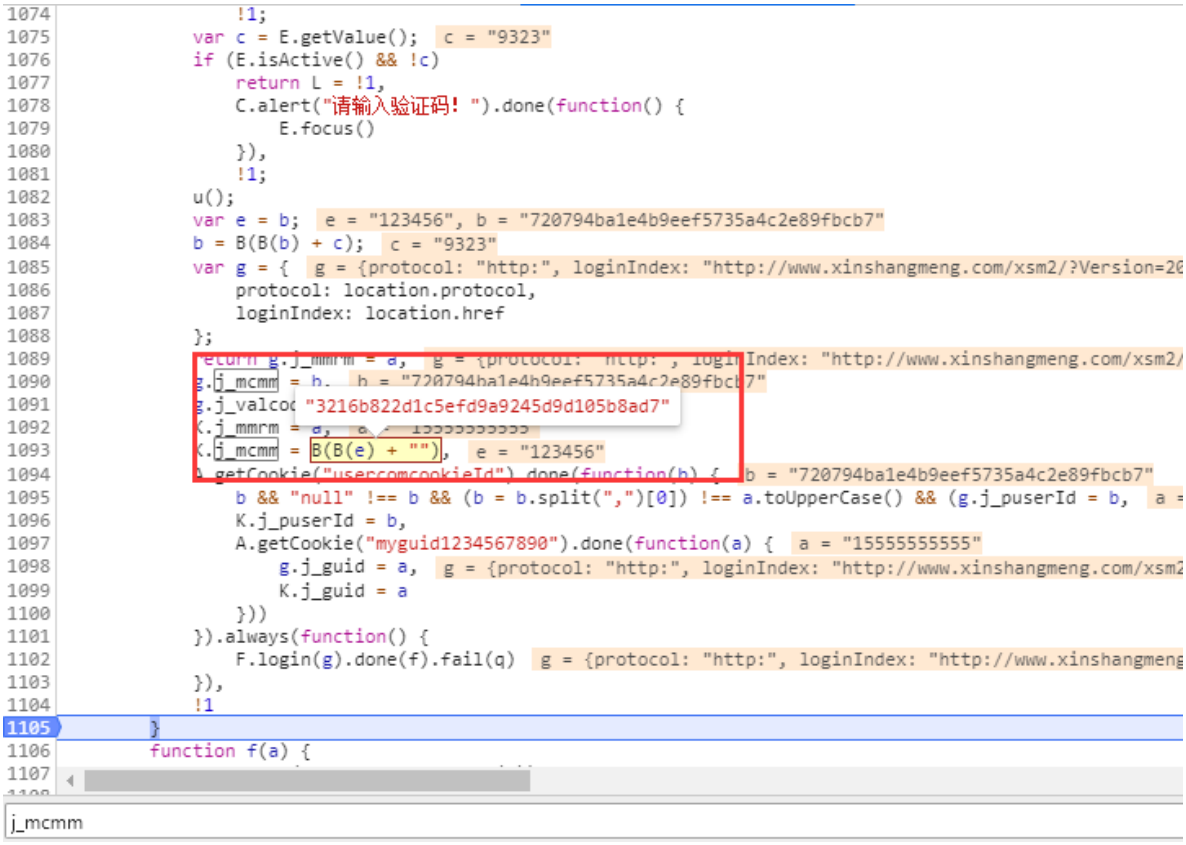
这便是断下来了 同时我们可以看到很多执行过的代码的数据 右侧也有断点相关的信息

观察我们发现 1093行 e是我们的密码 是明文的 但是到了1094行 已经成了密文 所以我们可以猜测

`K.j_mcmm = B(B(e) + ""),`

这是我们的加密函数

选中`B(B(e) + "")`我们可以看到函数的执行结果：



这就是我们想要的结果 粗略的看一下 这里是`B("123456")`然后把结果又

`B(B("123456"))`这样的思路

我们选`B`便可以点进去查看他的函数内容：

这就是它的加密逻辑 调用了一大堆的方法 一层一层 俄罗斯套娃

```
function d(a) {
    return n(e(o(m(a + "{1#2$3%4(5)6@7!poeeww$3%4(5)djjkkldss}")), 32))
}
```

选中 `m(a + "{1#2$3%4(5)6@7!poeeww$3%4(5)djjkkldss}")` 会出现运行结果（注意不要框选错了）

其他函数同理 选中对应的函数 就可以看到运行的结果

```
 19: [function(a, b, c) {
        function d(a) {
            return n(e(o(m(a + "{1#2$3%4(5)6@7!poeeww$3%4(5)djjkkldss}")), 32))
        }
        function e(a, b) {
            for (var c = 1732584193, d = -271733879, e = -1732584194, f =
271733878, l = 0; l < a.length; l += 16) {
                var m = c
                  , n = d
                  , o = e
                  , p = f;
                c = g(c, d, e, f, a[l + 0], 7, -680876936),
                f = g(f, c, d, e, a[l + 1], 12, -389564586),
                e = g(e, f, c, d, a[l + 2], 17, 606105819),
                d = g(d, e, f, c, a[l + 3], 22, -1044525330),
                    ···省略
```

这里看到19：[…]我们可以将这个函数整体拿下来

4.拿到方法 整理自己运行 扣方法（注意拿到20:[]就行 不要多拿了）

```
19: [function(a, b, c) {
```

```
        function d(a) {
            return n(e(o(m(a + "{1#2$3%4(5)6@7!poeeww$3%4(5)djjkkldss}")), 32))
        }
        function e(a, b) {
            for (var c = 1732584193, d = -271733879, e = -1732584194, f =
271733878, l = 0; l < a.length; l += 16) {
                var m = c
                  , n = d
                  , o = e
                  , p = f;
                c = g(c, d, e, f, a[l + 0], 7, -680876936),
                f = g(f, c, d, e, a[l + 1], 12, -389564586),
                e = g(e, f, c, d, a[l + 2], 17, 606105819),
                d = g(d, e, f, c, a[l + 3], 22, -1044525330),
                c = g(c, d, e, f, a[l + 4], 7, -176418897),
                f = g(f, c, d, e, a[l + 5], 12, 1200080426),
                e = g(e, f, c, d, a[l + 6], 17, -1473231341),
                d = g(d, e, f, c, a[l + 7], 22, -45705983),
                c = g(c, d, e, f, a[l + 8], 7, 1770035416),
                f = g(f, c, d, e, a[l + 9], 12, -1958414417),
                e = g(e, f, c, d, a[l + 10], 17, -42063),
                d = g(d, e, f, c, a[l + 11], 22, -1990404162),
                c = g(c, d, e, f, a[l + 12], 7, 1804603682),
                f = g(f, c, d, e, a[l + 13], 12, -40341101),
                e = g(e, f, c, d, a[l + 14], 17, -1502002290),
                d = g(d, e, f, c, a[l + 15], 22, 1236535329),
                c = h(c, d, e, f, a[l + 1], 5, -165796510),
                f = h(f, c, d, e, a[l + 6], 9, -1069501632),
                e = h(e, f, c, d, a[l + 11], 14, 643717713),
                d = h(d, e, f, c, a[l + 0], 20, -373897302),
                c = h(c, d, e, f, a[l + 5], 5, -701558691),
                f = h(f, c, d, e, a[l + 10], 9, 38016083),
                e = h(e, f, c, d, a[l + 15], 14, -660478335),
                d = h(d, e, f, c, a[l + 4], 20, -405537848),
                c = h(c, d, e, f, a[l + 9], 5, 568446438),
                f = h(f, c, d, e, a[l + 14], 9, -1019803690),
                e = h(e, f, c, d, a[l + 3], 14, -187363961),
                d = h(d, e, f, c, a[l + 8], 20, 1163531501),
                c = h(c, d, e, f, a[l + 13], 5, -1444681467),
                f = h(f, c, d, e, a[l + 2], 9, -51403784),
                e = h(e, f, c, d, a[l + 7], 14, 1735328473),
                d = h(d, e, f, c, a[l + 12], 20, -1926607734),
                c = i(c, d, e, f, a[l + 5], 4, -378558),
                f = i(f, c, d, e, a[l + 8], 11, -2022574463),
                e = i(e, f, c, d, a[l + 11], 16, 1839030562),
                d = i(d, e, f, c, a[l + 14], 23, -35309556),
                c = i(c, d, e, f, a[l + 1], 4, -1530992060),
                f = i(f, c, d, e, a[l + 4], 11, 1272893353),
                e = i(e, f, c, d, a[l + 7], 16, -155497632),
                d = i(d, e, f, c, a[l + 10], 23, -1094730640),
                c = i(c, d, e, f, a[l + 13], 4, 681279174),
                f = i(f, c, d, e, a[l + 0], 11, -358537222),
                e = i(e, f, c, d, a[l + 3], 16, -722521979),
                d = i(d, e, f, c, a[l + 6], 23, 76029189),
                c = i(c, d, e, f, a[l + 9], 4, -640364487),
                f = i(f, c, d, e, a[l + 12], 11, -421815835),
                e = i(e, f, c, d, a[l + 15], 16, 530742520),
                d = i(d, e, f, c, a[l + 2], 23, -995338651),
```

```
                c = j(c, d, e, f, a[l + 0], 6, -198630844),
                f = j(f, c, d, e, a[l + 7], 10, 1126891415),
                e = j(e, f, c, d, a[l + 14], 15, -1416354905),
                d = j(d, e, f, c, a[l + 5], 21, -57434055),
                c = j(c, d, e, f, a[l + 12], 6, 1700485571),
                f = j(f, c, d, e, a[l + 3], 10, -1894986606),
                e = j(e, f, c, d, a[l + 10], 15, -1051523),
                d = j(d, e, f, c, a[l + 1], 21, -2054922799),
                c = j(c, d, e, f, a[l + 8], 6, 1873313359),
                f = j(f, c, d, e, a[l + 15], 10, -30611744),
                e = j(e, f, c, d, a[l + 6], 15, -1560198380),
                d = j(d, e, f, c, a[l + 13], 21, 1309151649),
                c = j(c, d, e, f, a[l + 4], 6, -145523070),
                f = j(f, c, d, e, a[l + 11], 10, -1120210379),
                e = j(e, f, c, d, a[l + 2], 15, 718787259),
                d = j(d, e, f, c, a[l + 9], 21, -343485551),
                c = k(c, m),
                d = k(d, n),
                e = k(e, o),
                f = k(f, p)
            }
            return new Array(c,d,e,f)
        }
        function f(a, b, c, d, e, f) {
            return k(l(k(k(b, a), k(d, f)), e), c)
        }
        function g(a, b, c, d, e, g, h) {
            return f(b & c | ~b & d, a, b, e, g, h)
        }
        function h(a, b, c, d, e, g, h) {
            return f(b & d | c & ~d, a, b, e, g, h)
        }
        function i(a, b, c, d, e, g, h) {
            return f(b ^ c ^ d, a, b, e, g, h)
        }
        function j(a, b, c, d, e, g, h) {
            return f(c ^ (b | ~d), a, b, e, g, h)
        }
        function k(a, b) {
            var c = (65535 & a) + (65535 & b);
            return (a >> 16) + (b >> 16) + (c >> 16) << 16 | 65535 & c
        }
        function l(a, b) {
            return a << b | a >>> 32 - b
        }
        function m(a) {
            for (var b = a.length, c = new Array(b), d = 0; d < b; d++) {
                var e = a.charCodeAt(d);
                c[d] = 255 & e
            }
            return c
        }
        function n(a) {
            for (var b = "0123456789abcdef", c = "", d = 0; d < 4 * a.length;
d++)
                c += b.charAt(a[d >> 2] >> d % 4 * 8 + 4 & 15) + b.charAt(a[d >>
2] >> d % 4 * 8 & 15);
            return c
```

```
        }
        function o(a) {
            for (var b = 1 + (a.length + 8 >> 6), c = new Array(16 * b), d = 0;
d < 16 * b; d++)
                c[d] = 0;
            for (var e = 0; e < a.length; e++)
                c[e >> 2] |= (255 & a[e]) << e % 4 * 8;
            return c[e >> 2] |= 128 << e % 4 * 8,
            c[16 * b - 2] = 8 * a.length,
            c
        }
        c.hex_md5 = d
    }
    , {}],
```

这里我们想把这个方法能够为我们所用 但是分析它的逻辑 再用别的语言实现 有点不太现实 所以我们按照下面的方法 直接将它的代码跑起来 为我们服务

首先 我们观察 这个19里有两个部分 一个function一个{} 所以我们只要留下function主体就好 去掉 `19:[]` 与{} 结果如下：

```
function(a, b, c) {
        function d(a) {
            return n(e(o(m(a + "{1#2$3%4(5)6@7!poeeww$3%4(5)djjkkldss}")), 32))
        }
        function e(a, b) {
            for (var c = 1732584193, d = -271733879, e = -1732584194, f =
271733878, l = 0; l < a.length; l += 16) {
                var m = c
                  , n = d
                  , o = e
                  , p = f;
                c = g(c, d, e, f, a[l + 0], 7, -680876936),
                f = g(f, c, d, e, a[l + 1], 12, -389564586),
                e = g(e, f, c, d, a[l + 2], 17, 606105819),
                d = g(d, e, f, c, a[l + 3], 22, -1044525330),
                c = g(c, d, e, f, a[l + 4], 7, -176418897),
                f = g(f, c, d, e, a[l + 5], 12, 1200080426),
                e = g(e, f, c, d, a[l + 6], 17, -1473231341),
                d = g(d, e, f, c, a[l + 7], 22, -45705983),
                c = g(c, d, e, f, a[l + 8], 7, 1770035416),
                f = g(f, c, d, e, a[l + 9], 12, -1958414417),
                e = g(e, f, c, d, a[l + 10], 17, -42063),
                d = g(d, e, f, c, a[l + 11], 22, -1990404162),
                c = g(c, d, e, f, a[l + 12], 7, 1804603682),
                f = g(f, c, d, e, a[l + 13], 12, -40341101),
                e = g(e, f, c, d, a[l + 14], 17, -1502002290),
                d = g(d, e, f, c, a[l + 15], 22, 1236535329),
                c = h(c, d, e, f, a[l + 1], 5, -165796510),
                f = h(f, c, d, e, a[l + 6], 9, -1069501632),
                e = h(e, f, c, d, a[l + 11], 14, 643717713),
                d = h(d, e, f, c, a[l + 0], 20, -373897302),
                c = h(c, d, e, f, a[l + 5], 5, -701558691),
                f = h(f, c, d, e, a[l + 10], 9, 38016083),
                e = h(e, f, c, d, a[l + 15], 14, -660478335),
                d = h(d, e, f, c, a[l + 4], 20, -405537848),
                c = h(c, d, e, f, a[l + 9], 5, 568446438),
```

```
            f = h(f, c, d, e, a[l + 14], 9, -1019803690),
            e = h(e, f, c, d, a[l + 3], 14, -187363961),
            d = h(d, e, f, c, a[l + 8], 20, 1163531501),
            c = h(c, d, e, f, a[l + 13], 5, -1444681467),
            f = h(f, c, d, e, a[l + 2], 9, -51403784),
            e = h(e, f, c, d, a[l + 7], 14, 1735328473),
            d = h(d, e, f, c, a[l + 12], 20, -1926607734),
            c = i(c, d, e, f, a[l + 5], 4, -378558),
            f = i(f, c, d, e, a[l + 8], 11, -2022574463),
            e = i(e, f, c, d, a[l + 11], 16, 1839030562),
            d = i(d, e, f, c, a[l + 14], 23, -35309556),
            c = i(c, d, e, f, a[l + 1], 4, -1530992060),
            f = i(f, c, d, e, a[l + 4], 11, 1272893353),
            e = i(e, f, c, d, a[l + 7], 16, -155497632),
            d = i(d, e, f, c, a[l + 10], 23, -1094730640),
            c = i(c, d, e, f, a[l + 13], 4, 681279174),
            f = i(f, c, d, e, a[l + 0], 11, -358537222),
            e = i(e, f, c, d, a[l + 3], 16, -722521979),
            d = i(d, e, f, c, a[l + 6], 23, 76029189),
            c = i(c, d, e, f, a[l + 9], 4, -640364487),
            f = i(f, c, d, e, a[l + 12], 11, -421815835),
            e = i(e, f, c, d, a[l + 15], 16, 530742520),
            d = i(d, e, f, c, a[l + 2], 23, -995338651),
            c = j(c, d, e, f, a[l + 0], 6, -198630844),
            f = j(f, c, d, e, a[l + 7], 10, 1126891415),
            e = j(e, f, c, d, a[l + 14], 15, -1416354905),
            d = j(d, e, f, c, a[l + 5], 21, -57434055),
            c = j(c, d, e, f, a[l + 12], 6, 1700485571),
            f = j(f, c, d, e, a[l + 3], 10, -1894986606),
            e = j(e, f, c, d, a[l + 10], 15, -1051523),
            d = j(d, e, f, c, a[l + 1], 21, -2054922799),
            c = j(c, d, e, f, a[l + 8], 6, 1873313359),
            f = j(f, c, d, e, a[l + 15], 10, -30611744),
            e = j(e, f, c, d, a[l + 6], 15, -1560198380),
            d = j(d, e, f, c, a[l + 13], 21, 1309151649),
            c = j(c, d, e, f, a[l + 4], 6, -145523070),
            f = j(f, c, d, e, a[l + 11], 10, -1120210379),
            e = j(e, f, c, d, a[l + 2], 15, 718787259),
            d = j(d, e, f, c, a[l + 9], 21, -343485551),
            c = k(c, m),
            d = k(d, n),
            e = k(e, o),
            f = k(f, p)
        }
        return new Array(c,d,e,f)
    }
    function f(a, b, c, d, e, f) {
        return k(l(k(k(b, a), k(d, f)), e), c)
    }
    function g(a, b, c, d, e, g, h) {
        return f(b & c | ~b & d, a, b, e, g, h)
    }
    function h(a, b, c, d, e, g, h) {
        return f(b & d | c & ~d, a, b, e, g, h)
    }
    function i(a, b, c, d, e, g, h) {
        return f(b ^ c ^ d, a, b, e, g, h)
    }
```

```
        function j(a, b, c, d, e, g, h) {
            return f(c ^ (b | ~d), a, b, e, g, h)
        }
        function k(a, b) {
            var c = (65535 & a) + (65535 & b);
            return (a >> 16) + (b >> 16) + (c >> 16) << 16 | 65535 & c
        }
        function l(a, b) {
            return a << b | a >>> 32 - b
        }
        function m(a) {
            for (var b = a.length, c = new Array(b), d = 0; d < b; d++) {
                var e = a.charCodeAt(d);
                c[d] = 255 & e
            }
            return c
        }
        function n(a) {
            for (var b = "0123456789abcdef", c = "", d = 0; d < 4 * a.length;
d++)
                c += b.charAt(a[d >> 2] >> d % 4 * 8 + 4 & 15) + b.charAt(a[d >>
2] >> d % 4 * 8 & 15);
            return c
        }
        function o(a) {
            for (var b = 1 + (a.length + 8 >> 6), c = new Array(16 * b), d = 0;
d < 16 * b; d++)
                c[d] = 0;
            for (var e = 0; e < a.length; e++)
                c[e >> 2] |= (255 & a[e]) << e % 4 * 8;
            return c[e >> 2] |= 128 << e % 4 * 8,
            c[16 * b - 2] = 8 * a.length,
            c
        }
        c.hex_md5 = d
    }
```

接着让这个函数变为自执行函数（可以百度JS自执行的几种方式）改完的模板如下

```
//定义一个全局变量 将用到的加密方法导出来
var get_code_;
//这里为自执行函数 !function(){}()
!function(a) {
    //假设b是我们用到的加密方法
    function b() {

    }
    ...
    //在最后 将加密方法导出来
    get_code_ = b;
}()
```

这样改完之后 我们执行发现 `c.hex_md5 = d` 这行报错 我们看这行 其实就是通过 `c.hex_md5` 把 d 方法给导出了

所以这行我们可以注释掉 用我们的 get_code_来导出就好了

5.改完代码如下：

```
var get_code_;
!function(a, b, c) {
        function d(a) {
            return n(e(o(m(a + "{1#2$3%4(5)6@7!poeeww$3%4(5)djjkkldss}")), 32))
        }
        function e(a, b) {
            for (var c = 1732584193, d = -271733879, e = -1732584194, f =
271733878, l = 0; l < a.length; l += 16) {
                var m = c
                  , n = d
                  , o = e
                  , p = f;
                c = g(c, d, e, f, a[l + 0], 7, -680876936),
                f = g(f, c, d, e, a[l + 1], 12, -389564586),
                e = g(e, f, c, d, a[l + 2], 17, 606105819),
                d = g(d, e, f, c, a[l + 3], 22, -1044525330),
                c = g(c, d, e, f, a[l + 4], 7, -176418897),
                f = g(f, c, d, e, a[l + 5], 12, 1200080426),
                e = g(e, f, c, d, a[l + 6], 17, -1473231341),
                d = g(d, e, f, c, a[l + 7], 22, -45705983),
                c = g(c, d, e, f, a[l + 8], 7, 1770035416),
                f = g(f, c, d, e, a[l + 9], 12, -1958414417),
                e = g(e, f, c, d, a[l + 10], 17, -42063),
                d = g(d, e, f, c, a[l + 11], 22, -1990404162),
                c = g(c, d, e, f, a[l + 12], 7, 1804603682),
                f = g(f, c, d, e, a[l + 13], 12, -40341101),
                e = g(e, f, c, d, a[l + 14], 17, -1502002290),
                d = g(d, e, f, c, a[l + 15], 22, 1236535329),
                c = h(c, d, e, f, a[l + 1], 5, -165796510),
                f = h(f, c, d, e, a[l + 6], 9, -1069501632),
                e = h(e, f, c, d, a[l + 11], 14, 643717713),
                d = h(d, e, f, c, a[l + 0], 20, -373897302),
                c = h(c, d, e, f, a[l + 5], 5, -701558691),
                f = h(f, c, d, e, a[l + 10], 9, 38016083),
                e = h(e, f, c, d, a[l + 15], 14, -660478335),
                d = h(d, e, f, c, a[l + 4], 20, -405537848),
                c = h(c, d, e, f, a[l + 9], 5, 568446438),
                f = h(f, c, d, e, a[l + 14], 9, -1019803690),
                e = h(e, f, c, d, a[l + 3], 14, -187363961),
                d = h(d, e, f, c, a[l + 8], 20, 1163531501),
                c = h(c, d, e, f, a[l + 13], 5, -1444681467),
                f = h(f, c, d, e, a[l + 2], 9, -51403784),
                e = h(e, f, c, d, a[l + 7], 14, 1735328473),
                d = h(d, e, f, c, a[l + 12], 20, -1926607734),
                c = i(c, d, e, f, a[l + 5], 4, -378558),
                f = i(f, c, d, e, a[l + 8], 11, -2022574463),
                e = i(e, f, c, d, a[l + 11], 16, 1839030562),
                d = i(d, e, f, c, a[l + 14], 23, -35309556),
                c = i(c, d, e, f, a[l + 1], 4, -1530992060),
                f = i(f, c, d, e, a[l + 4], 11, 1272893353),
                e = i(e, f, c, d, a[l + 7], 16, -155497632),
                d = i(d, e, f, c, a[l + 10], 23, -1094730640),
                c = i(c, d, e, f, a[l + 13], 4, 681279174),
                f = i(f, c, d, e, a[l + 0], 11, -358537222),
                e = i(e, f, c, d, a[l + 3], 16, -722521979),
```

```
            d = i(d, e, f, c, a[l + 6], 23, 76029189),
            c = i(c, d, e, f, a[l + 9], 4, -640364487),
            f = i(f, c, d, e, a[l + 12], 11, -421815835),
            e = i(e, f, c, d, a[l + 15], 16, 530742520),
            d = i(d, e, f, c, a[l + 2], 23, -995338651),
            c = j(c, d, e, f, a[l + 0], 6, -198630844),
            f = j(f, c, d, e, a[l + 7], 10, 1126891415),
            e = j(e, f, c, d, a[l + 14], 15, -1416354905),
            d = j(d, e, f, c, a[l + 5], 21, -57434055),
            c = j(c, d, e, f, a[l + 12], 6, 1700485571),
            f = j(f, c, d, e, a[l + 3], 10, -1894986606),
            e = j(e, f, c, d, a[l + 10], 15, -1051523),
            d = j(d, e, f, c, a[l + 1], 21, -2054922799),
            c = j(c, d, e, f, a[l + 8], 6, 1873313359),
            f = j(f, c, d, e, a[l + 15], 10, -30611744),
            e = j(e, f, c, d, a[l + 6], 15, -1560198380),
            d = j(d, e, f, c, a[l + 13], 21, 1309151649),
            c = j(c, d, e, f, a[l + 4], 6, -145523070),
            f = j(f, c, d, e, a[l + 11], 10, -1120210379),
            e = j(e, f, c, d, a[l + 2], 15, 718787259),
            d = j(d, e, f, c, a[l + 9], 21, -343485551),
            c = k(c, m),
            d = k(d, n),
            e = k(e, o),
            f = k(f, p)
        }
        return new Array(c,d,e,f)
    }
    function f(a, b, c, d, e, f) {
        return k(l(k(k(b, a), k(d, f)), e), c)
    }
    function g(a, b, c, d, e, g, h) {
        return f(b & c | ~b & d, a, b, e, g, h)
    }
    function h(a, b, c, d, e, g, h) {
        return f(b & d | c & ~d, a, b, e, g, h)
    }
    function i(a, b, c, d, e, g, h) {
        return f(b ^ c ^ d, a, b, e, g, h)
    }
    function j(a, b, c, d, e, g, h) {
        return f(c ^ (b | ~d), a, b, e, g, h)
    }
    function k(a, b) {
        var c = (65535 & a) + (65535 & b);
        return (a >> 16) + (b >> 16) + (c >> 16) << 16 | 65535 & c
    }
    function l(a, b) {
        return a << b | a >>> 32 - b
    }
    function m(a) {
        for (var b = a.length, c = new Array(b), d = 0; d < b; d++) {
            var e = a.charCodeAt(d);
            c[d] = 255 & e
        }
        return c
    }
    function n(a) {
```

```
            for (var b = "0123456789abcdef", c = "", d = 0; d < 4 * a.length;
d++)
                c += b.charAt(a[d >> 2] >> d % 4 * 8 + 4 & 15) + b.charAt(a[d >>
2] >> d % 4 * 8 & 15);
            return c
        }
        function o(a) {
            for (var b = 1 + (a.length + 8 >> 6), c = new Array(16 * b), d = 0;
d < 16 * b; d++)
                c[d] = 0;
            for (var e = 0; e < a.length; e++)
                c[e >> 2] |= (255 & a[e]) << e % 4 * 8;
            return c[e >> 2] |= 128 << e % 4 * 8,
            c[16 * b - 2] = 8 * a.length,
            c
        }
        //c.hex_md5 = d
        get_code_ = d;
    }()
```

接着我们运行我们的代码

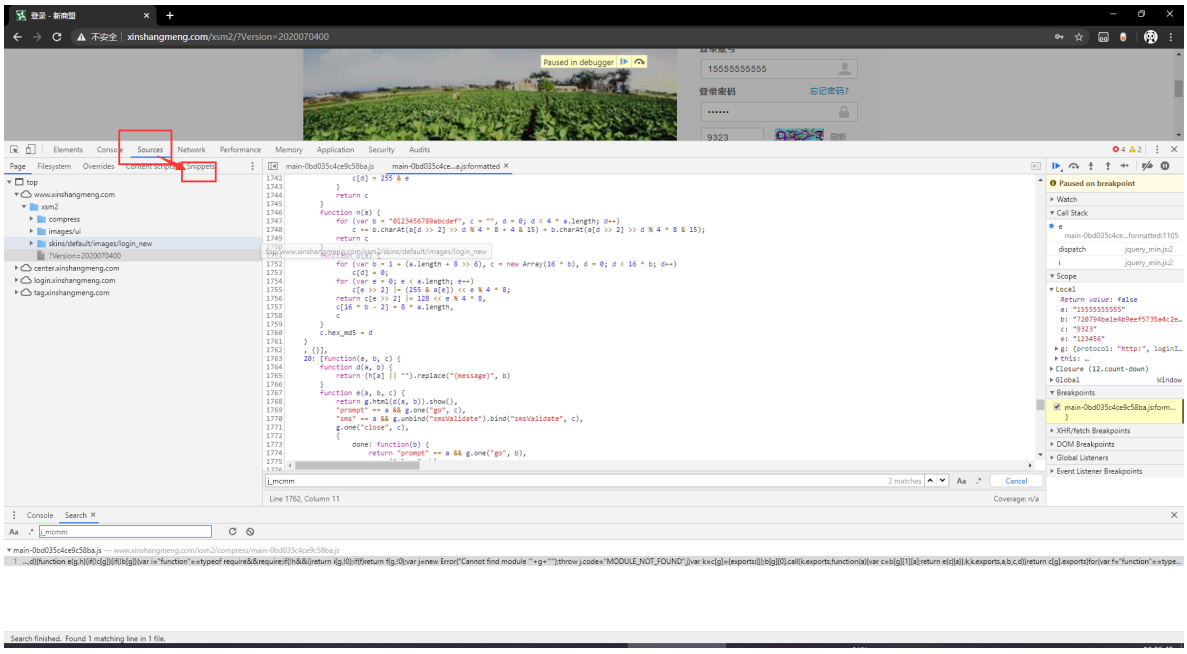
这里有几种方式

1.nodejs 自己搭建node服务 然后运行返回结果

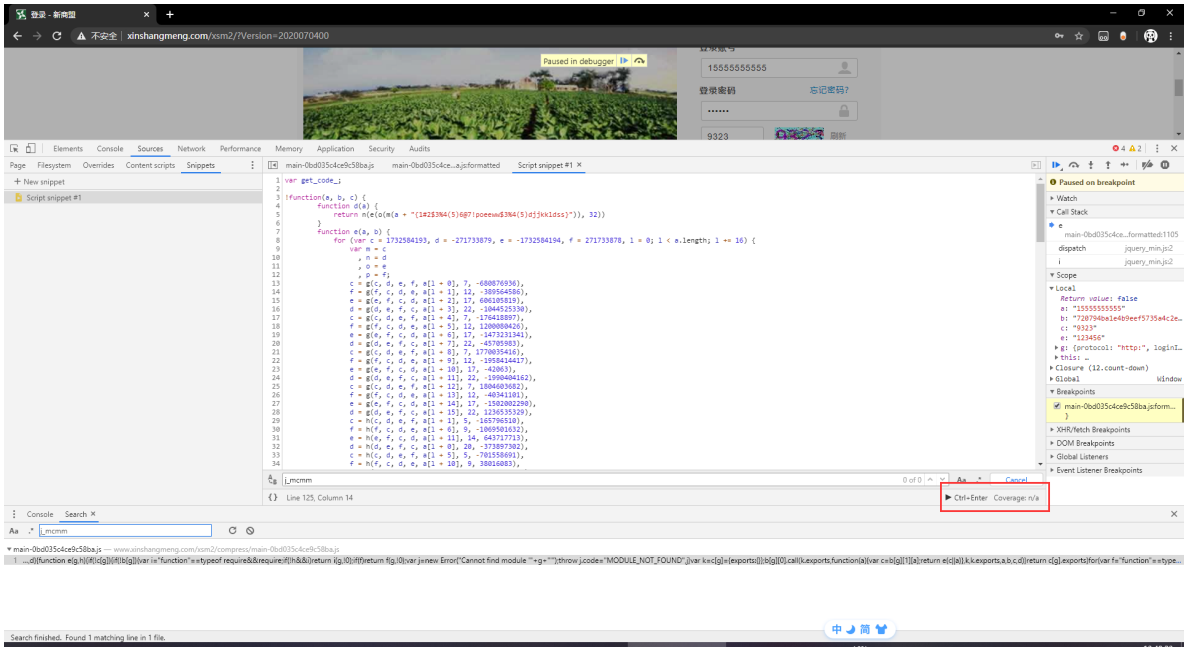
2.console 直接将刚才的内容 粘贴到console里回车（代码量较大的时候 可能会卡顿一点）

3.调试工具 下载一个调试工具进行调试

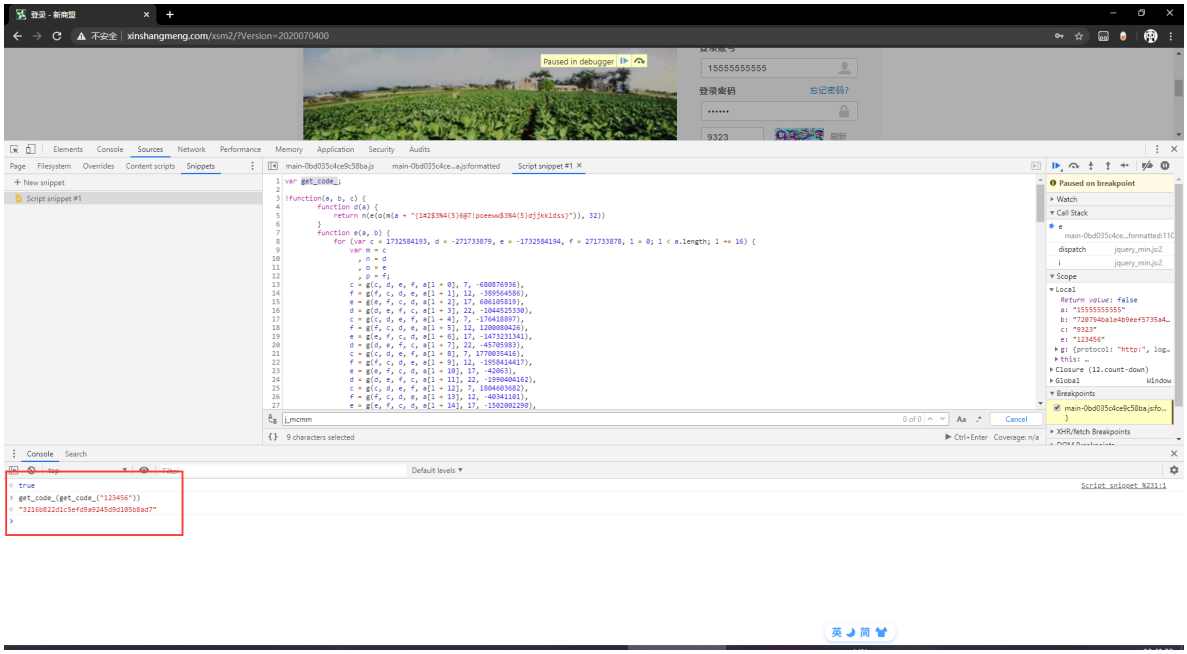
4.chrome开发工具 （这次我们先用这个）



打开`Snippets`面板 点击`New Snippets`创建一个新的脚本 将内容粘贴进去 接着`Ctrl + Enter`进行运行 或者如下点击运行



接着我们按照它的加密逻辑（还记得吗 是执行了两次）



```
>> get_code_(get_code_("123456"))
>> "3216b822d1c5efd9a9245d9d105b8ad7"
```

直接调用 出现了 我们想要的加密结果 至此 逆向分析完毕

这样你就可以搭建一个nodejs服务 来进行模拟登陆了