

## Stored Cross Site Scripting (XSS) – Account Takeover Possibility

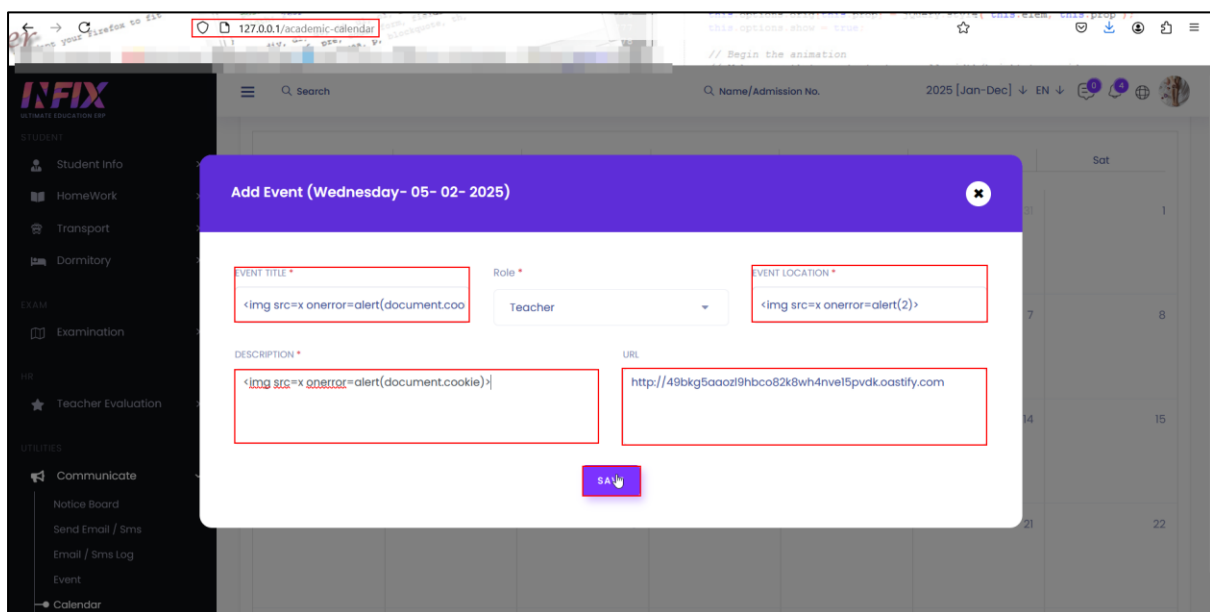
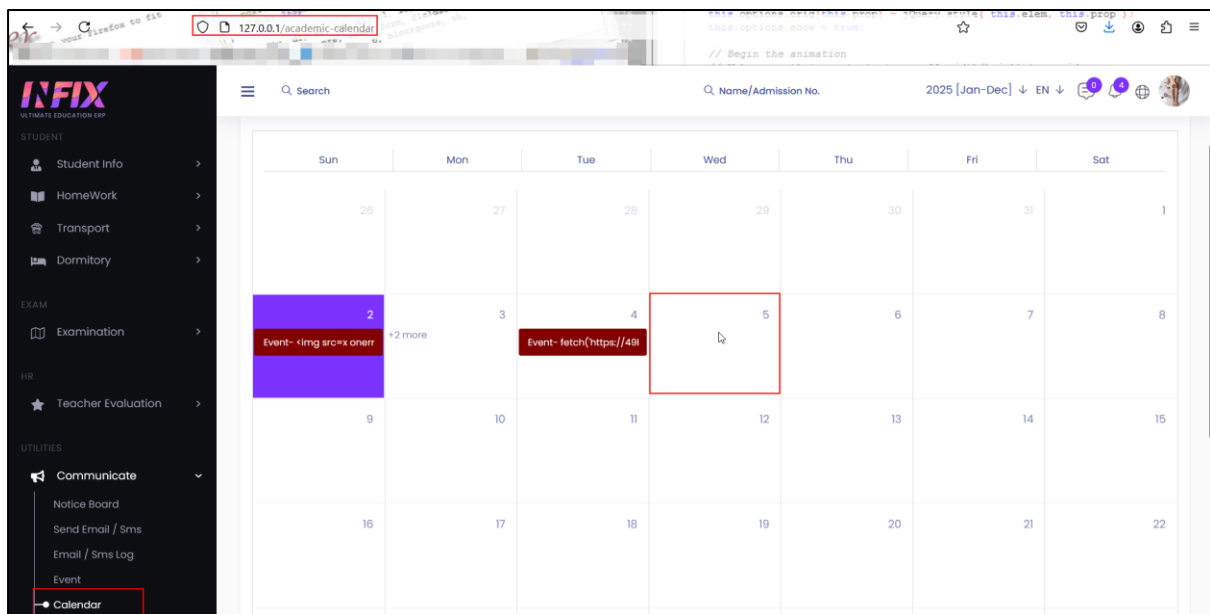
### Summary:

The application's calendar module `"/academic-calendar"` is vulnerable to cross site scripting. Teachers can view the calendar module and add an event to the calendar. The same event can then be seen in another teacher's calendar. Since the calendar module is vulnerable to XSS, one teacher can exploit this vulnerability and potentially steal another teacher's session cookie to perform account takeover.

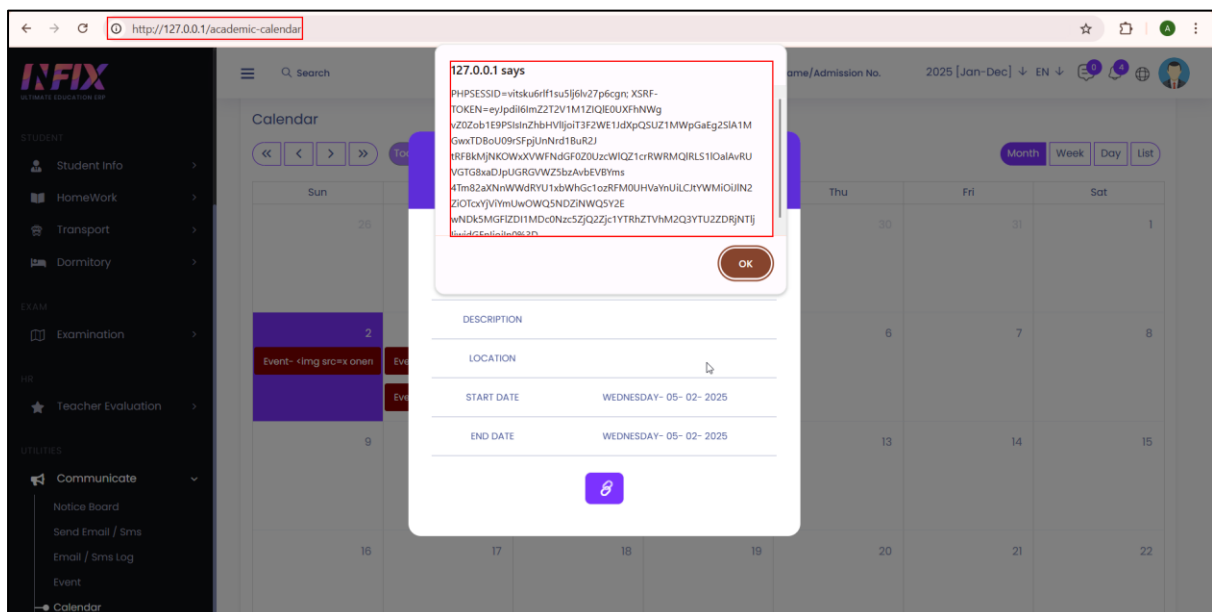
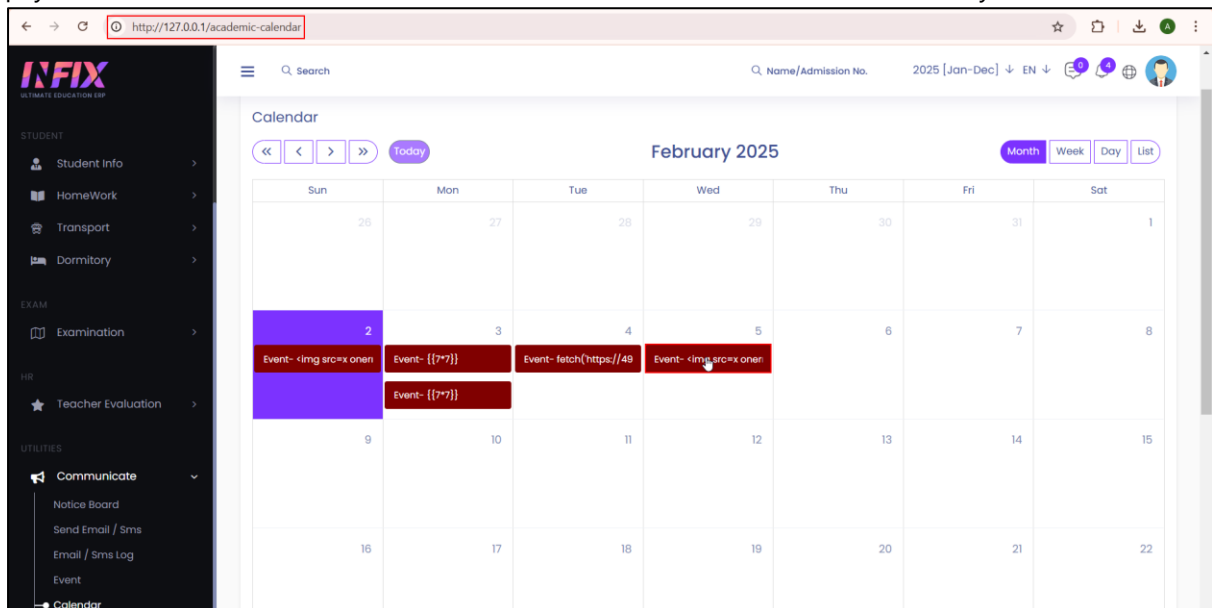
**Payload Used:** `<img src=x onerror=alert(document.cookie)>`

### POC's:

**Step 1:** Login inside the first teacher account and traverse to `"/academic-calendar"`. Select one of the dates in calendar and enter XSS payload `"<img src=x onerror=alert(document.cookie)>"` as shown below:



**Step 2:** Login inside the second teacher and traverse to the calendar section to see the event created by the first teacher. Once the event is clicked upon the script gets executed on the second teacher's session and the session cookie of the 2<sup>nd</sup> teacher is shown in the generated alert. Using a special crafted payload the cookie can be stolen and account of second teacher can be takeover by first teacher.



## Remediation:

- Input should be validated as strictly as possible on arrival, given the kind of content that it is expected to contain. For example, personal names should consist of alphabetical and a small range of typographical characters and be relatively short; a year of birth should consist of exactly four numerals; email addresses should match a well-defined regular expression. Input which fails the validation should be rejected, not sanitized.
- User input should be HTML-encoded at any point where it is copied into application responses. All HTML metacharacters, including < > " ' and =, should be replaced with the corresponding HTML entities (&lt; &gt; etc).