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- In the first screen, normal user can upload their files to check if it is infested or it is clean

┌─Upload File To Check─────────
│ [Admin Login]
│ [Choose File] No file chosen
│ [Upload]
│
└────────────────────────────

- If the file is mallicious, which means it can be found in the database, PHP will echo "Infested."

┌─Upload File To Check─────────
│ [Admin Login]
│ [Choose File] ajit pai.jpg
│ [Upload]
│
└────────────────────────────

Infested
┌─Upload File To Check──────────────────
│ [Admin Login]
│ [Choose File] No file chosen
│ [Upload]
│
└──────────────────────────────────────

- If the file is not found on database, it will display "File is clean"

Infested
┌─Upload File To Check─────────
│ [Admin Login]
│ [Choose File] Instruction.doc
│ [Upload]
│
└────────────────────────────

File is clean
┌─Upload File To Check─────────
│ [Admin Login]
│ [Choose File] No file chosen
│ [Upload]
│
└────────────────────────────

- To check if file is clean or not, I load all the Byte strings from the database and store them into a viruses array, then compare the file byte string with each element in the array by using for loop.

```php
$viruses = array();
$result = $conn->query($byteFromDB);
if(!$result){
    die($conn->connect_error);
    return;
}
$rows = $result->num_rows;

for($i=0; $i < $rows; $i++){
    $result->data_seek($i);
    $obj = $result->fetch_array(MYSQLI_ASSOC);
    $viruses[] = $obj['VirusBite'];
}
$result->close();
$conn-> close();
//echo('output'.$viruses[0]);

if($_FILES['uploadButtonCheck']['tmp_name']){
    //echo "Hello <br>";
    $content = file_get_contents($_FILES['uploadButtonCheck']['tmp_name']);
    $asciiInput = stringToAscii($content);
    //$byteFromDB = "select VirusByte from virus";
    $first20Bite = getFirstTwentyBytes($asciiInput);

    // Check if the file bytes is in the array viruses
    $check = 0;
    for($i = 0; $i < count($viruses); $i++){
        if($first20Bite === $viruses[$i]){
            echo "Infested<br>";
            $check = 1;
            break;
        }
        else {
            $check = 0;
        }

    }
    if($check == 0){
        echo "File is clean<br>";
    }

}
```

cessor file

- For admin login, I manually created the 'admin' and 'password' column for the 'user' table in 'virustotal' database by on PHPMyAdmin. Then I run this command to manually create 1 admin user with 'admin' as username and 'password' as password.

```php
$sql = "insert into user (admin, password) values ('admin', 'password')";
$query = mysqli_query($conn,$sql);
if($query){
    echo "Insert succeeded";
}
else{
    echo "Failed";
}
```

admin	password
admin	password

- I santize the input. Then if both username and password are not blank, then I compare with 'user' table on the database, if they are matched, I start a session and switch to the form.php page. Otherwise, there is nothing happen until username and password are correct.

```php
// Sanitize input
$name = stripcslashes($name);
$password = stripcslashes($password);
$name = mysqli_real_escape_string($conn, $name);
$password = mysqli_real_escape_string($conn, $password);

// Check input to login
$result = mysqli_query($conn, "Select * from user where admin = '$name' and password = '$password'")
        or die ("Failed to query db ".mysqli_error($conn));
$row = mysqli_fetch_array( $result);
if($row['admin'] == $name && $row['password'] == $password &&(""!== $name || ""!==$password)){
    //echo "Login success ".$row['admin'];
    startSession($name);
    header('Location: http://localhost/form/form.php');

    $conn->close();
    //include();
}
else{
    //echo "Failed to login<br>";
}
}
```

- Admin can upload infested file to the database, and name it whatever they want, the name text edit box and file upload button can't be left blank.

- If user used a short name (less than 6 characters), Javascript will display a pop, the file can't be uploaded to the database either.
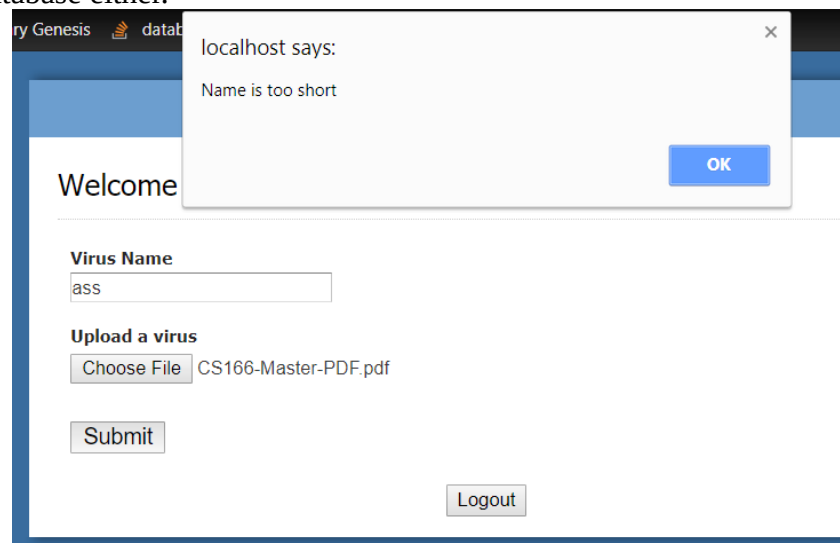
- If the file name is good, and the file IS NOT AVAILABLE on the database, we can see the new input in the virus table. Otherwise, we don't add duplicated file
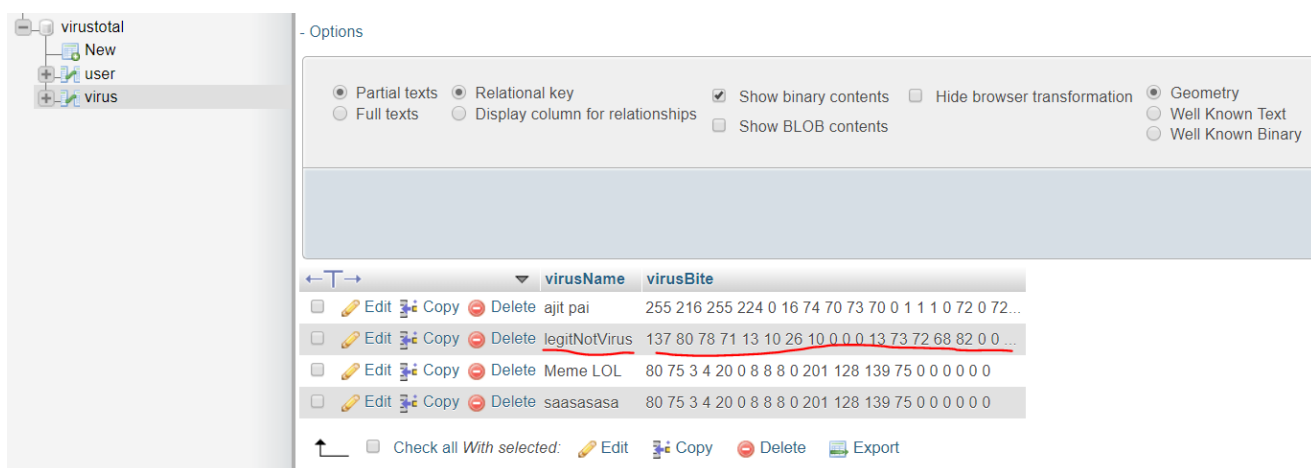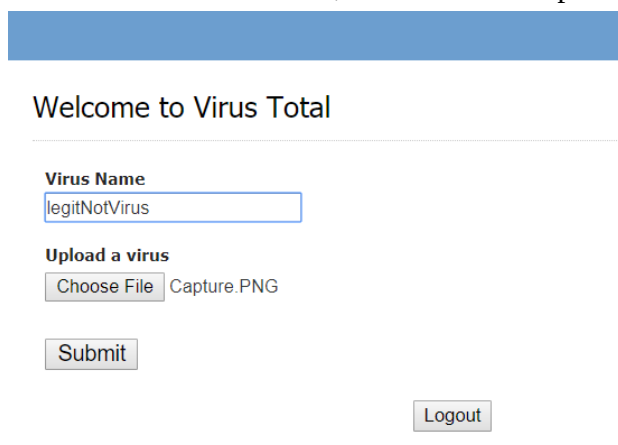
- If admin is done, he can click Log out, then I destroy the session, and return to checkVirus.php.

```php
session_start();
if(!validateSession()){
    header('Location: http://localhost/PHP.php');
}

// define empty string
$virusName = '';
$size = 0;
// Open connection
$host = 'localhost';
$user = 'root';
$pass = '';
$db = 'virustotal';
$conn = mysqli_connect($host, $user, $pass, $db);

if ($conn->connect_error) die($conn->connect_error);
// check input text
$virusName = stripcslashes($virusName);
$virusName = mysqli_real_escape_string($conn, $virusName);
// Get user input
if(isset($_POST["virusName"]) ){
    $virusName = $_POST['virusName'];
}
//Logout
if(isset($_POST["Logout"])){
    // Destroy session and go back to first page
    $_SESSION = array();
    setcookie(session_name(), '', time() - 2592000, "/");
    session_destroy();
    header('Location: http://localhost/checkVirus.php');
}
```