FILE HACKING ALERT USING FOG COMPUTING

PROJECT REPORT

Submitted by

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In partial fulfillment of the requirements for the award of the degree of

MASTER OF COMPUTER APPLICATIONS

DEPARTMENT OF COMPUTER APPLICATIONS

Dr. SNS RAJALAKSHMI COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS)

Accredited by NAAC (Cycle III) with 'A+' Grade

Affiliated to Bharathiar University

Coimbatore-641049

MARCH 2024

BONAFIDE CERTIFICATE

This is to certify that this project work entitled

"File Hacking Alert Using Fog Computing"

Is the Bonafide Record of project work done by

SUGUMAR

(22MCA0057)

In partial fulfillment of the requirement for the award of the degree of

MASTER OF COMPUTER APPLICATION

GUIDE **HOD**

Submitted for the **Viva-Voce** Examination held on

INTERNAL EXAMINER **EXTERNAL EXAMINER**

DECLARATION

DECLARATION

I hereby declare that this project work entitled "**File Hacking Alert Using Fog Computing"** submitted to **Dr. SNS Rajalakshmi College of Arts and Science, Coimbatore** is the record of the original work done by myself under the guidance of **Dr. S. SUJIYA, MCA., M.Phil., Ph.D., Assistant Professor, Department of Computer Applications, Dr. SNS Rajalakshmi College of Arts and Science, Coimbatore** and this work has not formed the basis for the award of any degree to any candidate in any university.

Date: **Signature of the Candidate**

Place: Coimbatore **(SUGUMAR C)**

CERTIFICATE

ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

It is a great pleasure to undertake this project as an integral part of the semester. At this moment there are certain people to whom I owe special thanks.

I express my sincere gratitude to the management for providing the necessary facilities for the completion of this project work.

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I extend my special thanks to my guide **Dr. S. SUJIYA** for helping me in completing the project.

I am thankful to my parent and friends who have always given me moral support for helping me in the completion of the project.

ABSTRACT

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From this product new technology concept Decoy data, such as decoy documents, honey pots and other bogus information can be generated on demand and used for detecting unauthorized access to information and to poison the thief's ex-filtrated information. Serving decoys will confuse an attacker into believing they have ex-filtrated useful information, when they have not. This technology may be integrated with user behaviour profiling technology to secure a user's data in the Cloud. Whenever abnormal and unauthorized access to a cloud service is noticed, decoy information may be returned by the Cloud and delivered in such a way that it appears completely normal and legitimate. The legitimate user, who is the owner of the information, would readily identify when decoy information is being returned by the Cloud, and hence could alter the Cloud's responses through a variety of means, such as challenge questions, to inform the Cloud security system that it has incorrectly detected an unauthorized access. When the unauthorized users access the system in that time the dummy file will be created and fully it will be encrypted. The encrypted data present in the document and it should be downloaded in the encrypted format to the users. This Process should be alerted to admin. Then the admin must suspend this account. This helps in secure process of communicating. This securing the users true data from can be implemented by given two additional security features:

- Validating whether data access is authorized when abnormal information access is detected.
- Confusing the attacker with bogus information that is by providing decoy documents

INTRODUCTION

1. INTRODUCTION

1.1 PROJECT OVERVIEW

The term “fog computing” or “edge computing” means that rather than hosting and working from a centralized cloud, fog systems operate on network ends. It is a term for placing some processes and resources at the edge of the cloud, instead of establishing channels for cloud storage and utilization. Fog computing tackles an important problem in cloud computing, namely, reducing the need for bandwidth by not sending every bit of information over cloud channels, and instead aggregating it at certain access points. This type of distributed strategy lowers costs and improves efficiencies. More interestingly, its one approach to dealing with the emerging concept of Internet of Things (IoT). Fog computing extends the cloud computing paradigm to the edge of the network to address applications and services that do not fit the paradigm of the cloud due to technical and infrastructure limitation including:

- Applications that require very low and predictable latency
- Geographically distributed application
- Fast mobile applications
- Large-scale distributed control systems

In fog computing data collected by sensors are not sent to cloud server instead it is sent to devices like network edge or set top box, routers, access point for processing thus by reducing the traffic due to low bandwidth Fog computing improves the Quality of service and also reduces latency. Small computing works are locally processed and responses are sent back to the end users without the use of cloud. So, fog computing is emerging as a better option than cloud computing for smaller computing works. Fog computing plays an important role by reducing the traffic of data to the cloud. Since fog system is placed near to the data sources computation and communication are not delayed. The need for Fog Computing can be felt from the example of a jet engine. Whenever the jet engine is connected to the internet, half an hour running time of the jet engine creates 10 TB of data. This huge data itself will create a big traffic in the bandwidth which cannot be neglected. So, comes the importance of fog computing. Fog computing is complementary to cloud. Certain features of fog computing differentiate it from cloud, Fog Computing is used for real time interactions but cannot totally replace cloud computing as it is preferred for high end batch processing. As the name suggests cloud system is placed at a distant whereas the fog system is placed locally near to the end user.

1.2 SYSTEM SPECIFICATIONS

1.2.1 HARDWARE SPECIFICATION

Processor : Core i3

RAM : 2GB

Speed : 1.3GHz or above

Hard Disk : 250 GB

I/O Devices : Standard Keyboard & Logitech Mouse

1.2.2 SOFTWARE SPECIFICATION

Front-End : HTML, CSS

Client-Side : JAVASCRIPT

Server-Side : PYTHON

Back-End : MYSQL

Server Used : APACHE

Browser : IE 6.0 or Later, Firefox, Chrome

1.3 SOFTWARE DESCRIPTION

ABOUT THE FRONTEND

HTML

- HTML stands for Hyper Text Markup Language. It is used to design web pages using markup language.
- HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages.
- Markup language is used to define the text document within tag which defines the structure of web pages. This language is used to annotate (make notes for the computer) text so that a machine can understand it and manipulate text accordingly. Most of markup (e.g. HTML) languages are human readable.
- HTML was created by Tim Berners-Lee in 1991.The first ever version of HTML was HTML 1.0 but the first standard version was HTML 2.0 which was published in 1999.HTML is a mark-up language, heavily utilized for creating web pages and web applications.HTML, when combined with JavaScript and CSS, has become a milestone for web development.
- One of a useful aspect of HTML is, it can embed programs written in a scripting language like JavaScript, which is responsible for affecting the behavior and content of web pages. CSS inclusion would affect the layout and appearance of the content. Basic building blocks of any HTML pages are HTML elements.
- A structured document can be created with help of structural semantic for text like heading, paragraph, list, link, and other items. Browser indeed does not display the HTML tags but utilize them to interpret the content of the page.

ABOUT THE BACKEND

MYSQL

- MySQL is a database system used for developing web-based software applications.
- MySQL used for both small and large applications.
- MySQL is a relational database management system (RDBMS).
- MySQL is fast, reliable, and flexible and easy to use.

- MySQL supports standard SQL (Structured Query Language).
- MySQL is free to download and use.
- MySQL was developed by Michael Widenius and David Axmark in 1994.
- MySQL is presently developed, distributed, and supported by Oracle Corporation.
- MySQL Written in C, C++.

PYTHON

Python is a very popular general-purpose interpreted, interactive, object-oriented, and high-level programming language. Python is dynamically-typed and garbage-collected programming language. It was created by Guido Van Rossum during 1985- 1990. Like Perl, python source code is also available under the gnu general public license. It was designed with an emphasis on code readability, and its syntax allows programmers to express their concepts in fewer lines of code. The following are the characteristics of python:

- It supports functional and structured programming methods as well as oops.
- It can be used as a scripting language or can be compiled to byte-code for building large applications.
- It provides very high-level dynamic data types and supports dynamic type checking.
- It supports automatic garbage collection…It can be easily integrated with C, C++, com, active-x, corba, and Java.
- Easy-to-read − python code is more clearly defined and visible to the eyes.
- Easy-to-maintain − python's source code is fairly easy-to-maintain.
- Interactive mode − python has support for an interactive mode which allows interactive testing and debugging of snippets of code.
- Portable − python can run on a wide variety of hardware platforms and has the same interface on all platforms.
- Extendable − you can add low-level modules to the python interpreter. These modules enable programmers to add to or customize their tools to be more efficient.
- Databases − python provides interfaces to all major commercial databases.
- Scalable − python provides a better structure and support for large programs than shell scripting.

SYSTEM ANALYSIS

2. SYSTEM ANALYSIS

2.1 EXISTING SYSTEM

First, Cloud Computing has provided many Opportunities for enterprises by offering their customers a range of computing services. Current “Pay-as-you-go” cloud computing model becomes an efficient alternative to owning and managing private data centres for Customers facing Web Applications

Disadvantages

Existing data protection mechanisms such as encryption was failed in securing the data from the attackers. It does not verify whether the user was authorized or not. Cloud computing security does not focus on ways of secure the data from unauthorized access.

2.2 PROPOSED SYSTEM

Unlike traditional data centres, Fog devices are geographically distributed over heterogeneous platforms, spanning multiple management domains. Cisco is interested in innovative proposals that facilitate service mobility across platforms, and technologies that preserve end-user and content security and privacy across domains

Advantages

Fog can be distinguished from Cloud by its proximity to end-users. The dense geographical distribution and its support for mobility. It provides low latency, location awareness, and improves quality-of-services (QoS) and real time applications.

SYSTEM DESIGN AND DEVELOPMENT

3. SYSTEM DESIGN AND DEVELOPMENT

3.1 INPUT DESIGN

Input design is the process of converting user-oriented inputs to a computer based format. input design is one of the most expensive phases of the operation of computerized system and is often the major problem of a system. In this project, the input design to make in various forms with various methods.

Login form

This is login form entered in to the website. It is used for Admin, Owner and User and also maintaining security.

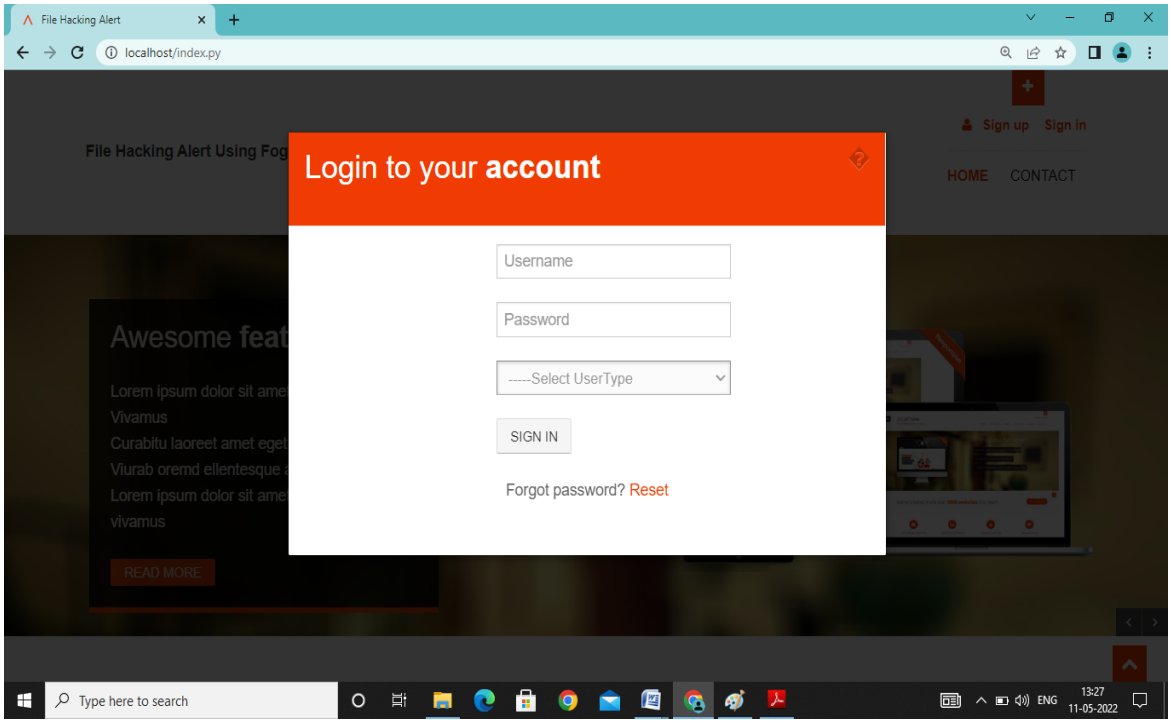


Fig 3.1 Login form

Owner and User Updation

This form used to update the owner and user detailed information from the website.

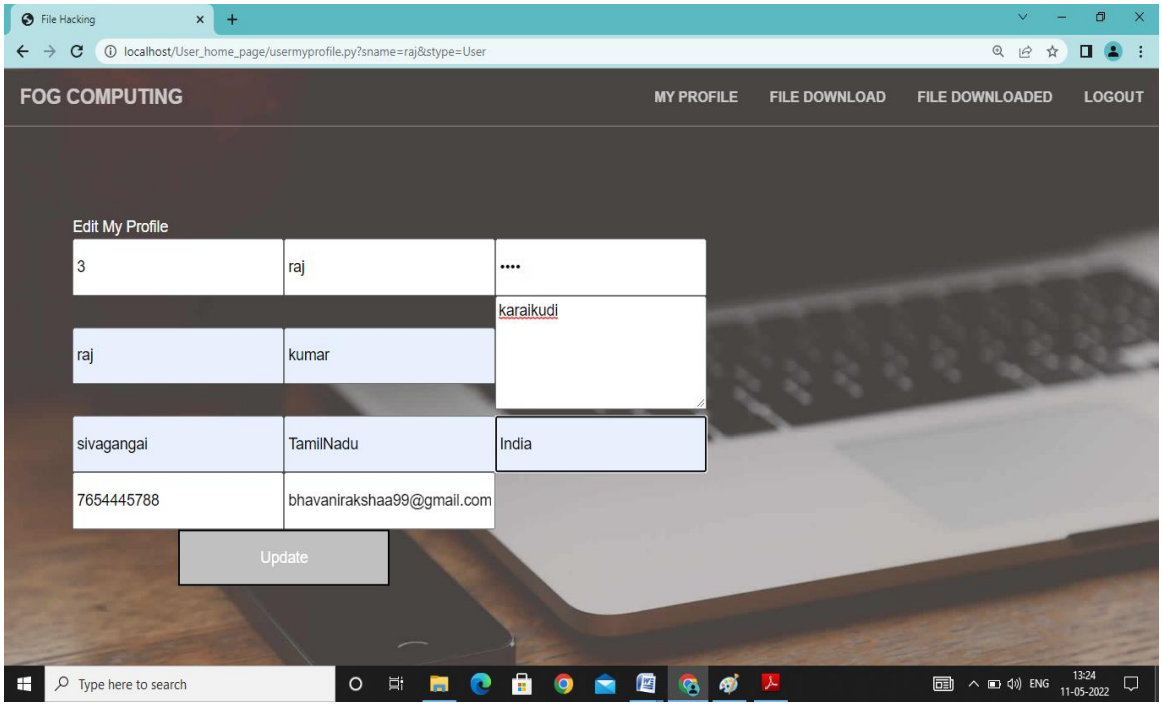
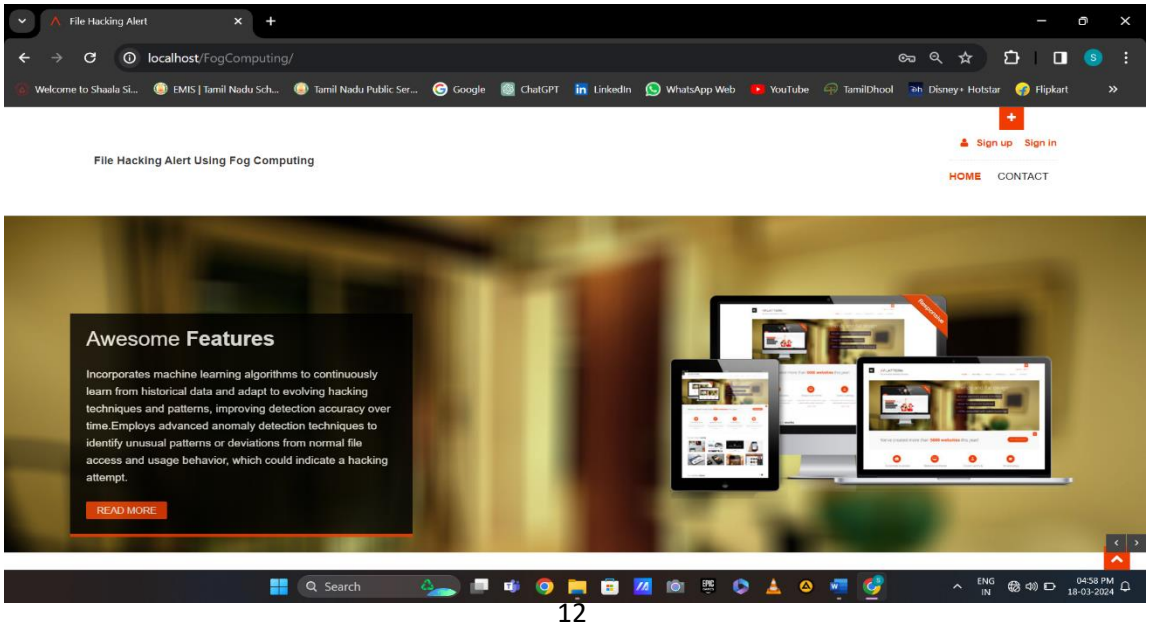


Fig 3.2 Owner and User Updation

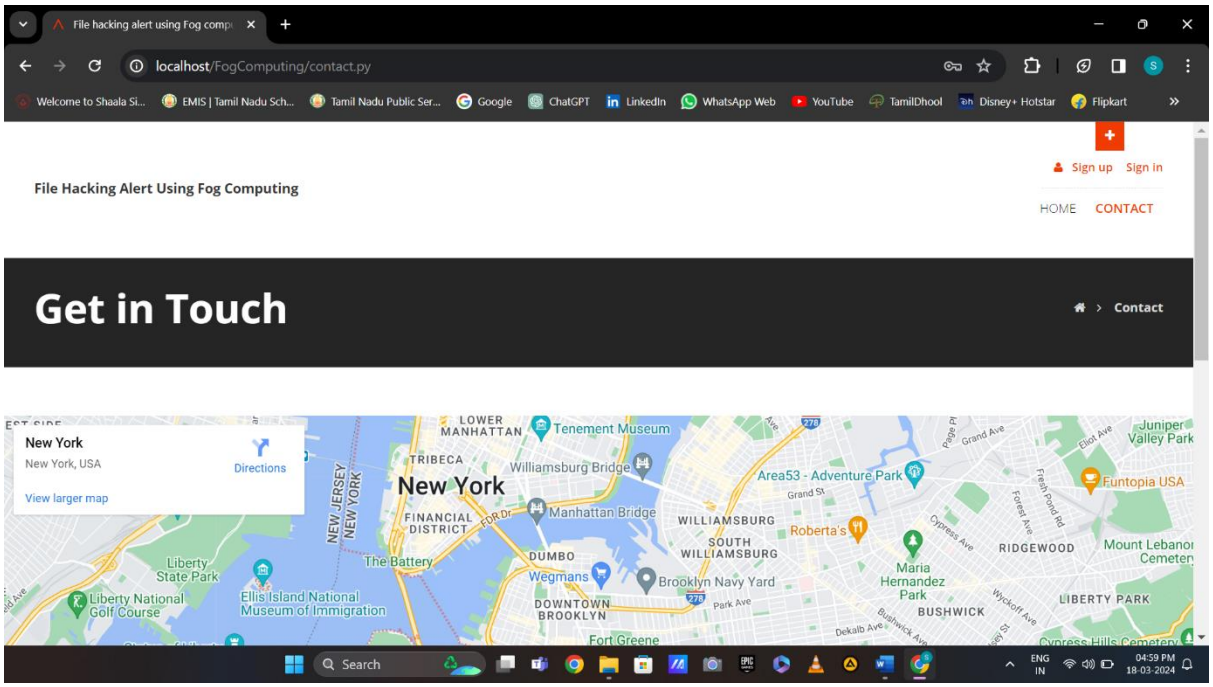
3.2 OUTPUT DESIGN

Output design generally refers to the results and information that are generated by the system for many end-users; output is the main reason for developing the system and the basis on which they evaluate the usefulness of the application.

Home Page



Contact Page



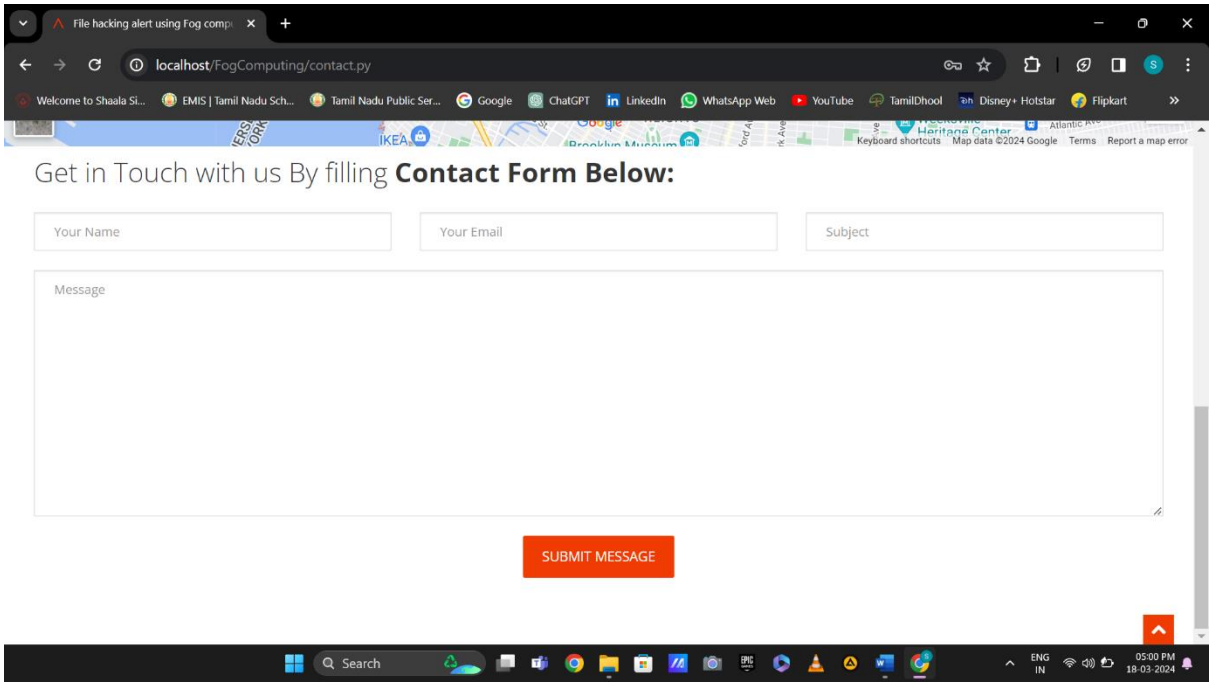


Fig 3.3, 3.4 and 3.5 Home and Contact Page

3.3 DATA FLOW DIAGRAM

Context Level DFD

It is login for Admin, Owner and User to entering into the website. Then type the username and password for condition checking. If it is true Authorized person Otherwise unauthorized person.

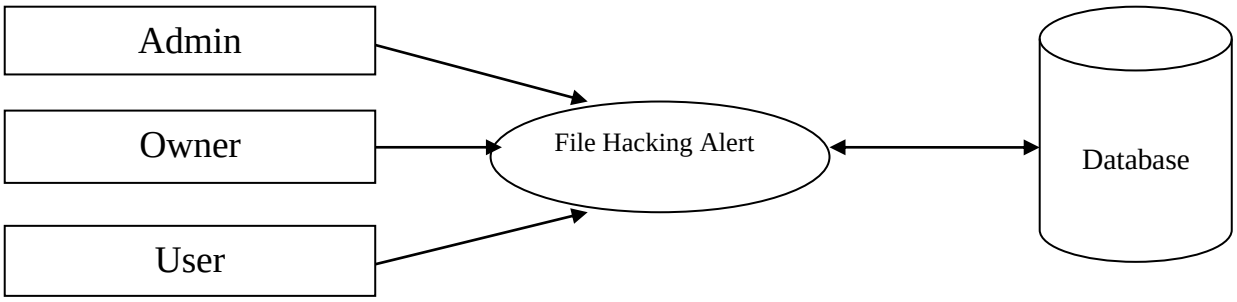


Fig 3.6 Context Level DFD

DFD for Admin

The admin to maintain the owner and user details it also used for manage users & decoy files.

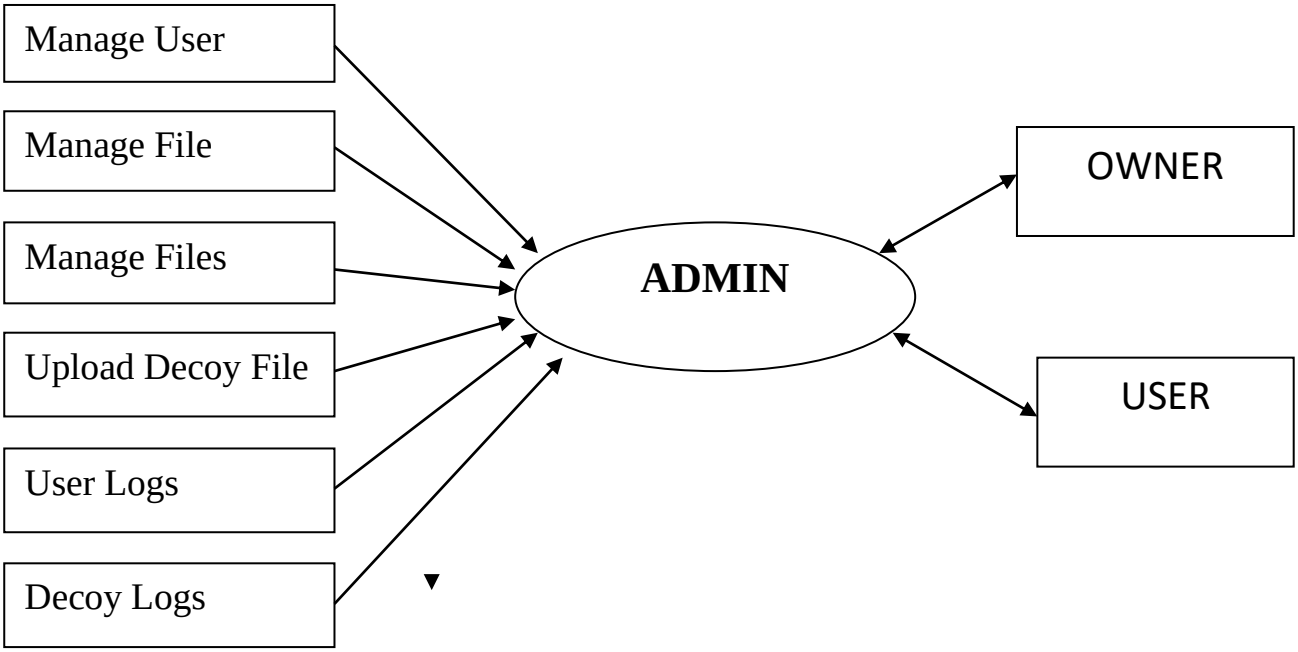


Fig 3.7 DFD for Admin

3.4 DATABASE DESIGN

Loginlogs Table

The above tables used to store the login id ,ip address and trytime method and also maintain the databases.

Field Name	Datatype
Logid	int(11)
Ipaddress	Varbinary(20)
Trytime	Varbinary(20)

Table.1 loginlogs Table

Register Table

The above tables store the user details such as userid, username, password etc. These details are stored in this table.

Field Name	Datatype
Userid	int(11)
Username	varchar(20)
Firstname	varchar(20)
Lastname	varchar(20)
Password	varchar(20)
security_code	varchar(20)
Address	varchar(20)
City	varchar(20)
State	varchar(20)
Country	varchar(20)
mobile_number	bigint(20)
email_id	varchar(50)
Usertype	varchar(20)
Status	varchar(20)

Table.2 Register Table

Fileupload Table

The above tables used to upload the files and store the files. These details are stored in this table. The userid is unique for each user. so this field is acts as an primary key for this table.

Field Name	Datatype
Fileid	int(11)
Userid	varchar(20)
Username	varchar(20)
Filename	text
Uploaddate	varchar(20)

Table.3 Fileupload Table

User session Table

It tracks the user login and owner login operation and accordingly when it wrong userid and password it redirects the user to the decoy application.

Field Name	Datatype
Username	Varchar(20)
Password	Varchar(20)
Usertype	Varchar(20)

Table.4 User session Table

Download Table

The above tables used to store the downloaded files and maintain the databases.

Field Name	Datatype
Did	int(11)
Fielded	int(11)
Ownerid	int(11)
Fileowner	varchar(20)
Userid	int(11)
Username	varchar(20)
Filename	text
Downloadedon	varchar(20)

Table.5 Download Table

Decoy Table

The above tables used to store the downloaded decoy files and maintain the databases.

Field Name	Datatype
Id	int(11)
Fileid	int(11)
Filename	varchar(50)
Ownername	varchar(50)
Decoyuser	varchar(50)
Downloadedon	varchar(50)
Fromipaddress	varchar(50)

Table.6 Decoy Table

3.5 DESCRIPTION MODULE

1. User Authentication
2. Admin Module
3. File Access Module
4. Data Access Module
5. Decoy Module

1. User Authentication

The user is facilitated here to authenticate and thus, ensure that only valid users can access the application. But, it also tracks the user login operation and accordingly redirects the user to the decoy application.

2. Admin Module

This module facilitates the admin to manage users, the data stored and the invalid activities occurring within the application. Thus, this user will be responsible for tracking the application functionalities. A set of valid access rules will also be defined by the admin for identification of invalid users.

3. File Access Module

This module will enable to track whether the search operations executed by the user follow a valid set of operations or not. Accordingly, the system will decide whether the user should be redirected to the decoy environment.

4. Data Access Module

The data available for user access will be authenticated using a separate user key specified by the application to the user during registration. Based on the validity of this user key the system will redirect the user to the Decoy Module for tracking and prevent invalid distribution of data.

5. Decoy Module

This module will facilitate the system to redirect invalid users to a dummy set of modules wherein invalid data will be distributed to the invalid user and the user activities will be notified to the admin. Thus, the system will not notify the invalid user about the detection of invalid activity and prevent.

SYSTEM TESTING

4. SYSTEM TESTING

TESTING

Testing is a critical stage in software development life cycle (SDLC) and is vital to provide quality assurance and for ensuring reliability of software. Testing forms the first step in determining the error in the program testing is the process of executing a program with indent of finding error product.

4.1 UNIT TESTING

All modules of this project are tested with sample data and all outputs are verified. Unit testing is performed prior to integration of the unit into a larger system. It is like Coding and debugging > unit testing > integration testing. A program unit must be tested for Functional tests, Performance tests, Stress tests and Structure tests.

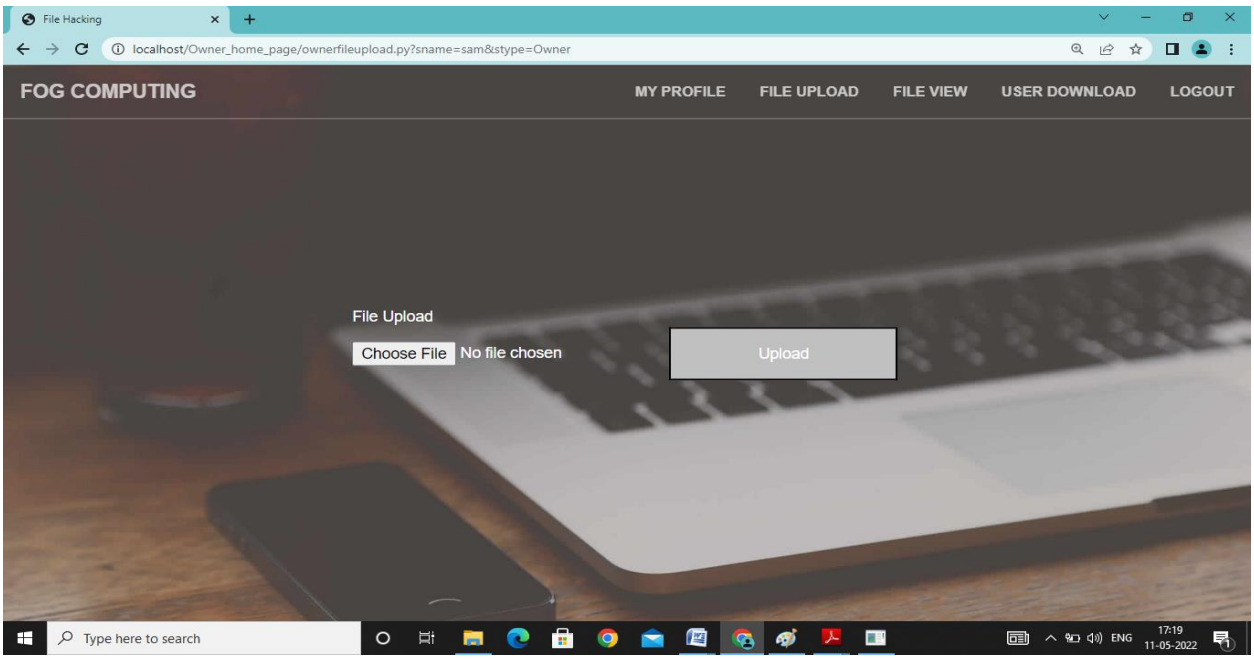


Fig 4.1 Unit Testing

4.2 INTEGRATION TESTING

Integration testing strategies include bottom-up (traditional), top-down and sandwich strategies. Bottom-up integration consists of unit testing, followed by sub system testing, followed by testing entire system. Unit testing tries to discover errors in modules. Modules are tested independently in an artificial environment known as a “test harness”. Test harnesses provide data environments and calling sequences for the routines and subsystem that are being tested in isolation.

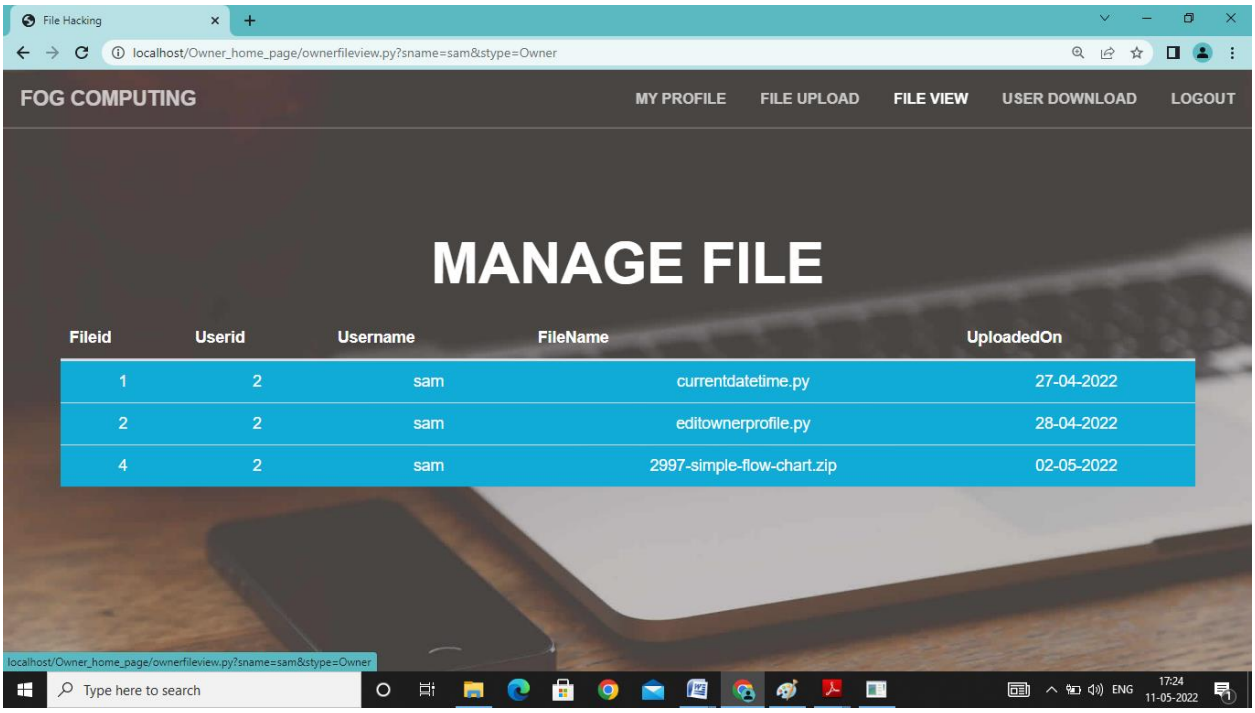


Fig 4.2 Integration Testing

SYSTEM IMPLEMENTATION

5. SYSTEM IMPLEMENTATION

5.1 FLOW OF SYSTEM

When a new user enters into this System he has to register first. After successfully registration that user will get a key through mail. And during login if the user enters wrong password continuously more than three times he will get access and his activity will be tracked on log details table in the database and after this whatever activity he is doing that also will be tracked in the log table. If he downloads any file he won't get original file Instead of that he will get decoy file. If a user enters correct password, he will get access. If that user wants to download any file and he enters a wrong key more than three times. In first three cases, invalid entries will be entered in the action column. In the fourth case if wrong key is entered then that user will get decoy file. In every case, it will execute user behavior algorithm. When a user edit password, he enters wrong key more than three times, then edit password wrong key will be entered and user will get message that password updated successfully. But in actual case it is not updating.

5.2 PROCESS MODEL USED FOR THE PROJECT

A spiral model of software development and enhancement. This model is the iterative model which is used in implementation of this project. Each phase starts with a design goal and ends with a client reviewing the progress thus far project, with an eye toward the end goal of the project.

The Steps for Spiral Model can be generalized as follows:

1) The new system requirements are defined in as much details as possible.

2) This usually involves interviewing a number of users representing all the external or internal users and other aspects of the existing system.

3) A preliminary design is created for the new system.

4) A first prototype of the new system is constructed from the preliminary design.

5) This is usually a scaled-down system and represents an approximation of the characteristics of the final product.

6) A second prototype is evolved by a fourfold procedure:

- Evaluating the first prototype in terms of its strengths, weakness, and risks.
- Defining the requirements of the second prototype.
- Planning a designing the second prototype.
- Constructing and testing the second prototype.

7) At the customer option, the entire project can be aborted if the risk is deemed too great. Risk factors might involve development cost overruns, operating-cost miscalculation, or any other factor that could, in the customers judgment, result in a less-than-satisfactory final product.

8) The existing prototype is evaluated in the same manner as was the previous prototype, and if necessary, another prototype is developed from it according to the fourfold procedure outlined above.

9) The preceding steps are iterated until the customer is satisfied that the refined prototype represents the final product desired.

10) The final system is constructed, based on the refined prototype.

11) The final system is thoroughly evaluated and tested. Routine maintenance is carried on a continuing basis to prevent large scale failures and to minimize down time.

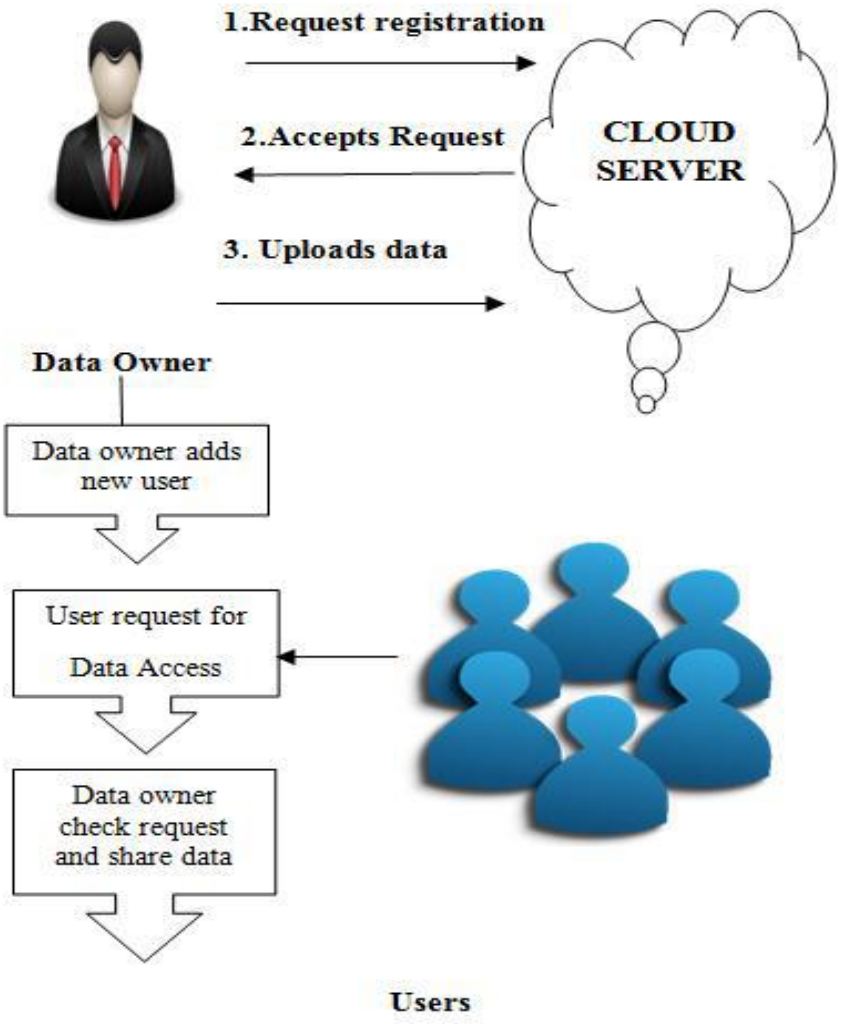


Fig 5.1 Implementation

CONCLUSION

6. CONCLUSION

We present a novel approach to securing personal and business data in the Cloud. We propose monitoring data access patterns by profiling user behavior to determine if and when a malicious insider illegitimately accesses someone's documents in a Cloud service. Decoy documents stored in the Cloud alongside the users real data also serve as sensors to detect illegitimate access. Once unauthorized data access or exposure is suspected, and later verified, with challenge questions for instance, we inundate the malicious insider with bogus information in order to dilute the users real data. Such preventive attacks that rely on disinformation technology could provide unprecedented levels of security in the Cloud and in social networks model.

SCOPE FOR FUTURE ENHANCEMENTS

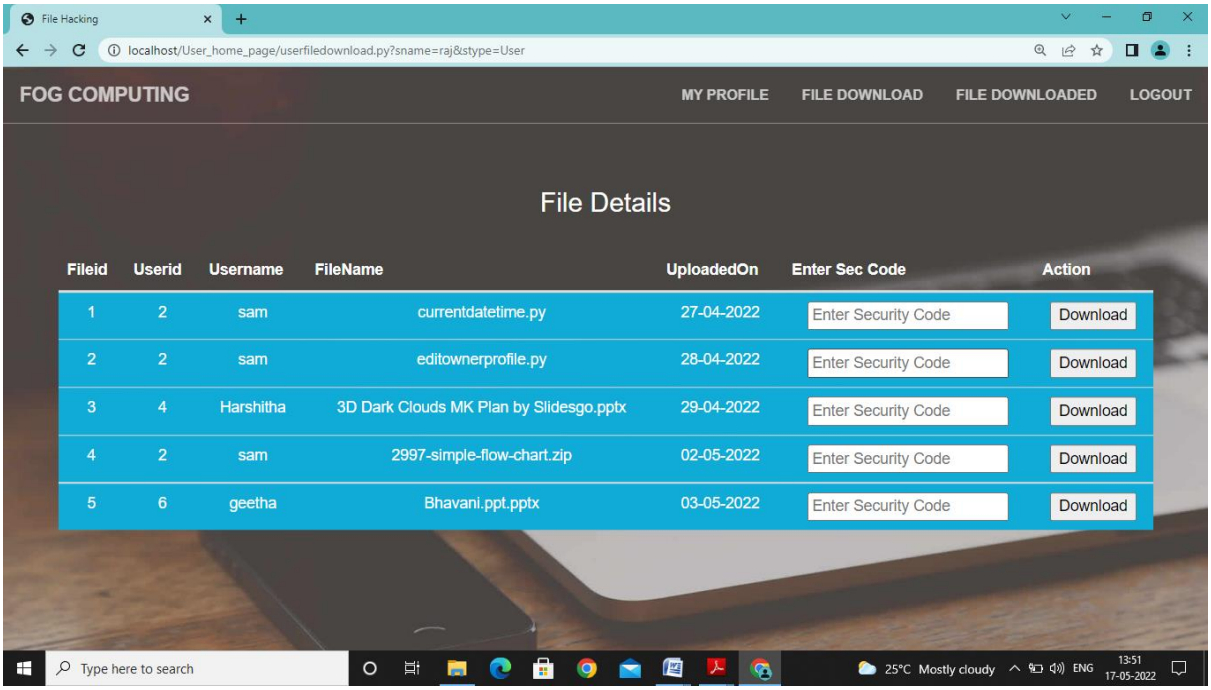
- The new system requirements are defined in as much details as possible. This usually involves interviewing a number of users representing all the external or internal users and other aspects of the existing system.
- A preliminary design is created for the new system.
- A first prototype of the new system is constructed from the preliminary design. This is usually a scaled-down system, and represents an approximation of the characteristics of the final product.
- At the customer option, the entire project can be aborted if the risk is deemed too great. Risk factors might involve development cost overruns, operating-cost miscalculation, or any other factor that could, in the customers judgment, result in a less-than-satisfactory final product.
- The existing prototype is evaluated in the same manner as was the previous prototype, and if necessary, another prototype is developed from it according to the fourfold procedure outlined above.
- The preceding steps are iterated until the customer is satisfied that the refined prototype represents the final product desired.
- The final system is constructed, based on the refined prototype.
- The final system is thoroughly evaluated and tested. Routine maintenance is carried on a continuing basis to prevent large scale failures and to minimize down time.

APPENDICES

7. APPENDICES

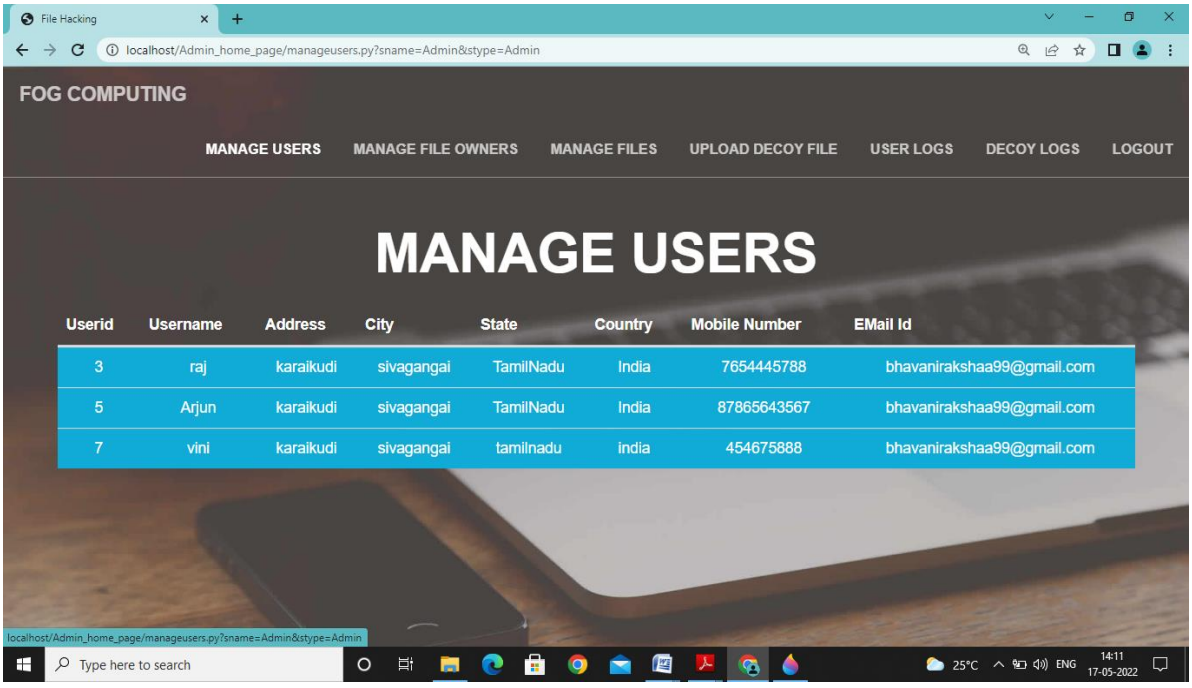
SECURITY CODE VERIFICATION

This form is verifying the security code. It sends to the original user Email for security purpose.



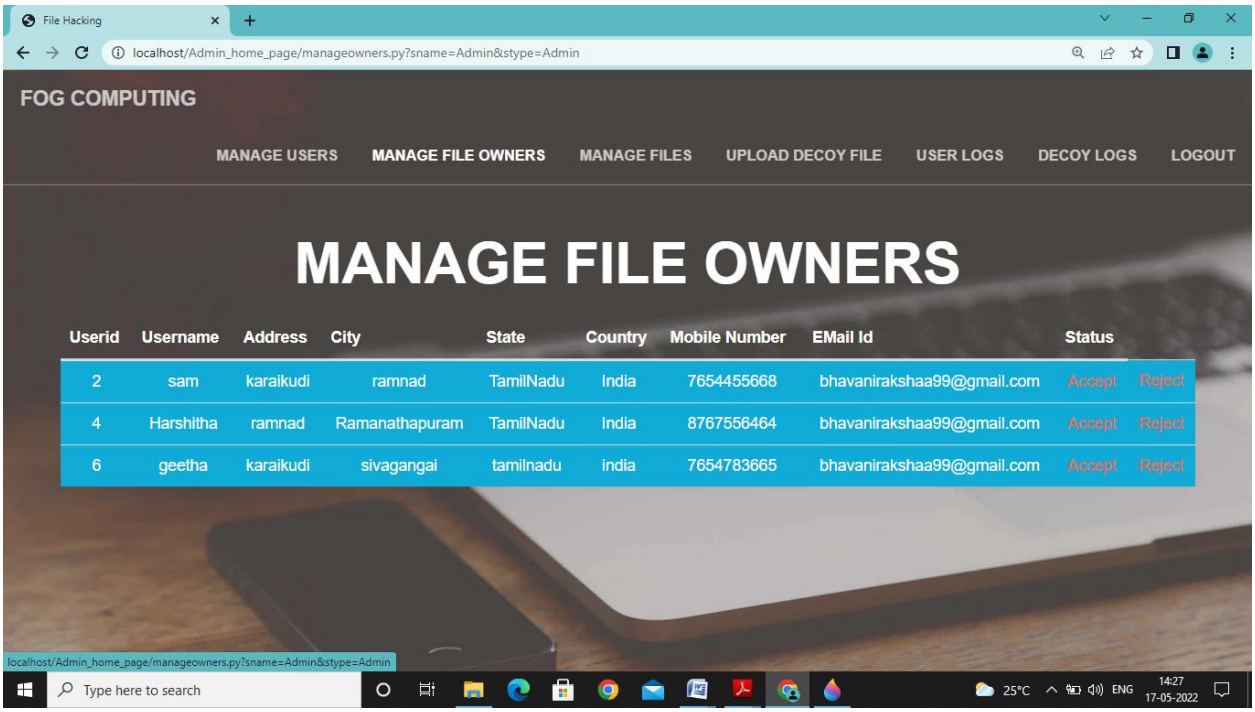
MANAGING USERS

This form is used to display and manage the user details and track the following actions and maintain the user records.



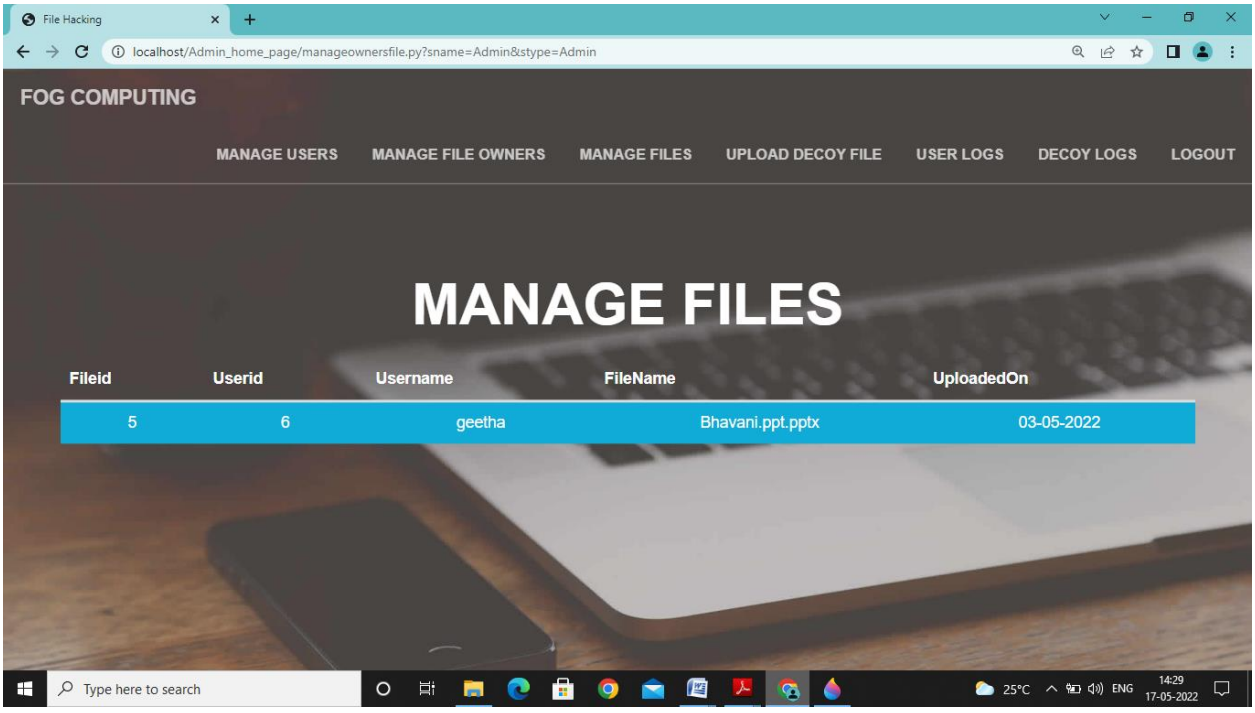
MANAGING OWNERS

This form is used to display and manage the owner file details and upload the files following actions and maintain the records.



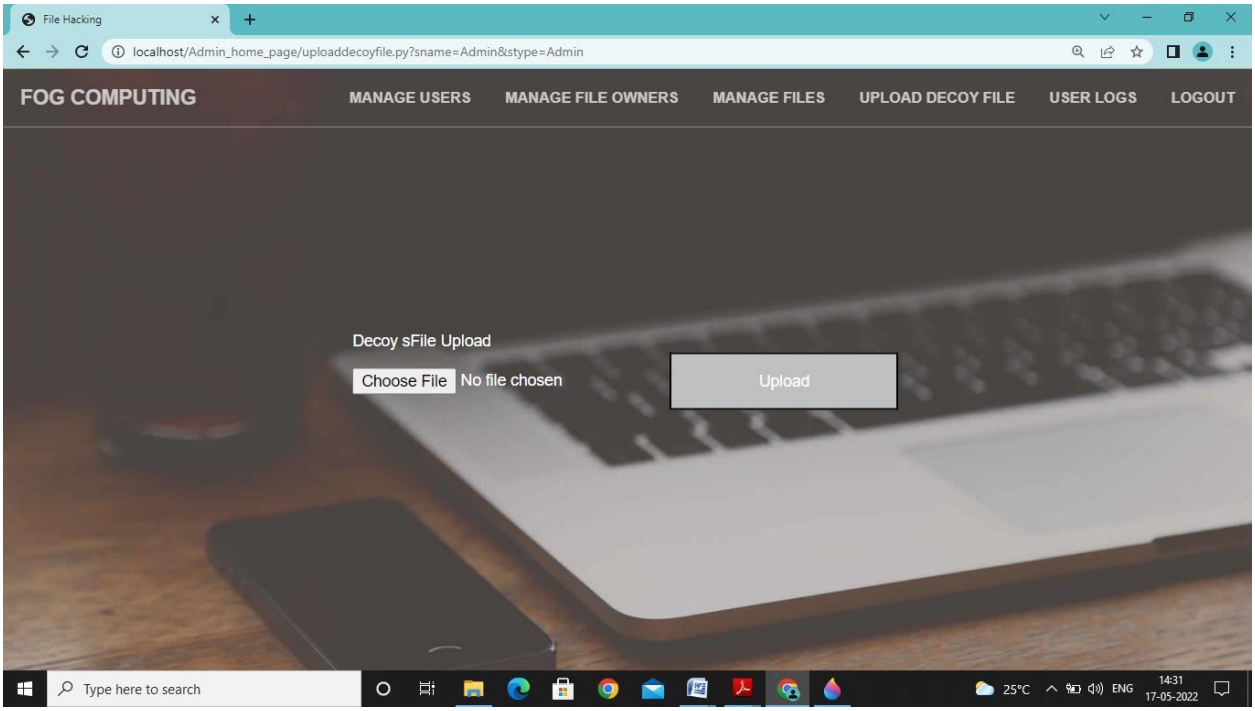
MANAGING FILES

This form is used to display and manage the files details.



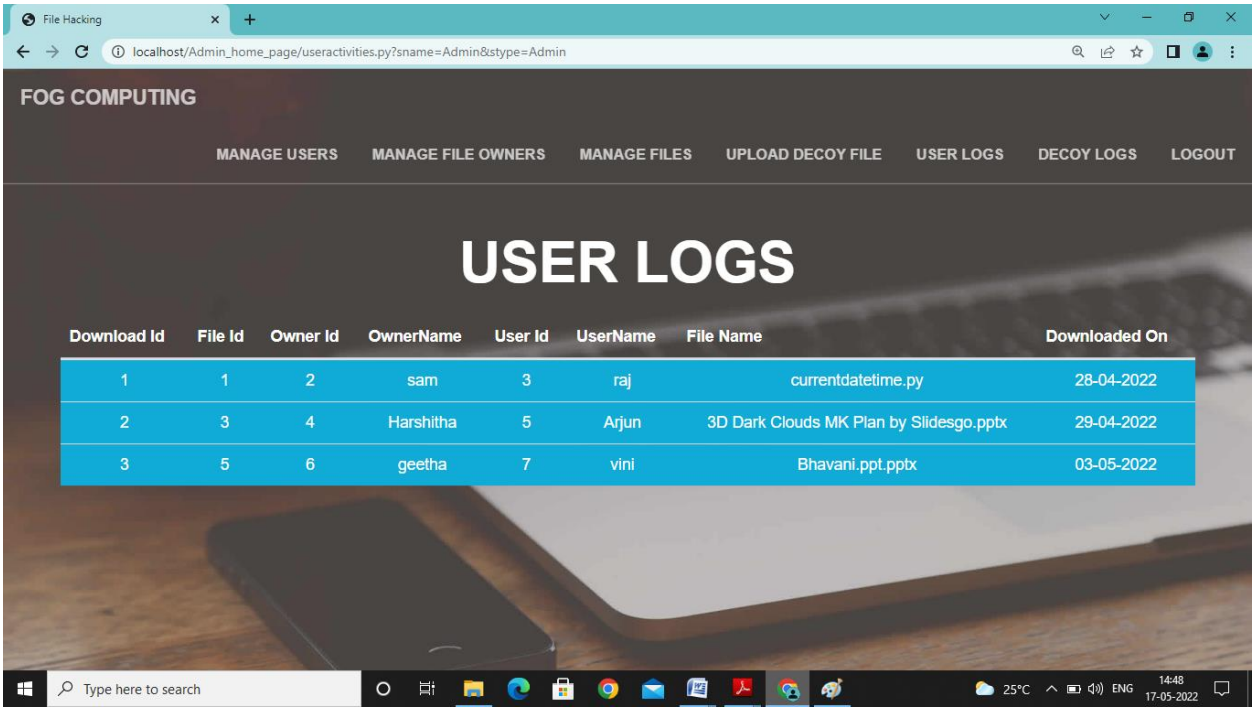
UPLOADING DECOY

This form is used to upload decoy files and redirect the unauthenticated users and give the duplicate file to them.



USER LOGS

This form is used to maintain the users activities and manage the user details also checking whether the user is authenticate or decoy user.



SAMPLE CODING

8. SAMPLE CODING

ADMIN MODULE

```
#!C:\Users\chand\AppData\Local\Programs\Python\Python37/python.exe
print("content-type:text/html\r\n")
import cgi
import pymysql
form=cgi.FieldStorage()
sessname=form.getvalue('sname')
sesstype=form.getvalue('stype')
try:

dbcon=pymysql.connect(host="localhost",user="root",passwd="root",database="file_hacking
")
   if(dbcon):
   cursor=dbcon.cursor()
    existsquery="select * from tbl_user_session where username='%s' and
    usertype='%s'"%(sessname,sesstype)
    if(cursor.execute(existsquery)==0):
     print("<script>alert('Session is Not Available');location.href='../index.py';</script>")
      else:
            print("""
            <!DOCTYPE html>
            <html lang="en">
            <head>
                <meta charset="utf-8">
               <meta http-equiv="X-UA-Compatible" content="IE=edge">
               <meta name="viewport" content="width=device-width, initial-scale=1">
```

```
        <meta name="description" content="">

        <meta name="author" content="">

        <title>File Hacking</title>

        <!-- Bootstrap Core CSS -->

        <link href="vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

        <!-- Custom Fonts -->

        <link href="vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet"
type="text/css">

        <link
href='https://fonts.googleapis.com/css?family=Open+Sans:300italic,400italic,600italic,700ita
lic,800italic,400,300,600,700,800' rel='stylesheet' type='text/css'>

        <link
href='https://fonts.googleapis.com/css?family=Merriweather:400,300,300italic,400italic,700,
700italic,900,900italic' rel='stylesheet' type='text/css'>

       <!-- Plugin CSS -->

       <link href="vendor/magnific-popup/magnific-popup.css" rel="stylesheet">

       <!-- Theme CSS -->

       <link href="css/creative.min.css" rel="stylesheet">

       <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media
queries -->

        <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->

        <!--[if lt IE 9]>

           <script
src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>

           <script
src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>

        <![endif]-->

        </head>

        <body id="page-top">
```

```
            <nav id="mainNav" class="navbar navbar-default navbar-fixed-top">
                <div class="container-fluid">
                    <!-- Brand and toggle get grouped for better mobile display -->
                    <div class="navbar-header">
                        <button type="button" class="navbar-toggle collapsed" data-
toggle="collapse" data-target="#bs-example-navbar-collapse-1">
                            <span class="sr-only">Toggle navigation</span> Menu <i class="fa
fa-bars"></i>
                        </button>
                        <a class="navbar-brand page-scroll" href="#page-top">Fog
Computing</a>
                    </div>

                    <!-- Collect the nav links, forms, and other content for toggling -->
                    <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
                        <ul class="nav navbar-nav navbar-right">""")
        print("<li><a class=page-scroll
href='manageusers.py?sname=%s&stype=%s'>Manage
Users</a></li>"%(sessname,sesstype))
        print("<li><a class='page-scroll'
href='manageowners.py?sname=%s&stype=%s'>Manage File
Owners</a></li>"%(sessname,sesstype))
        print("<li><a class='page-scroll'
href='manageownersfile.py?sname=%s&stype=%s'>Manage
Files</a></li>"%(sessname,sesstype))
        print("<li><a class='page-scroll'
href='uploaddecoyfile.py?sname=%s&stype=%s'>Upload Decoy
File</a></li>"%(sessname,sesstype))
        print("<li><a class='page-scroll'
href='useractivities.py?sname=%s&stype=%s'>User Logs</a></li>"%(sessname,sesstype))
```

```
        print("<li><a class='page-scroll'
href='userdecoyactivities.py?sname=%s&stype=%s'>Decoy
Logs</a></li>"%(sessname,sesstype))

        print("<li><a class='page-scroll'
href='logout.py?sname=%s&stype=%s'>Logout</a></li>"%(sessname,sesstype))


        print("""</ul>
            </div>
            <!-- /.navbar-collapse -->
        </div>
        <!-- /.container-fluid -->
    </nav>

    <header>
        <div class="header-content">
            <div class="header-content-inner">
                <h1 id="homeHeading">File Hacking Alert</h1>
                <hr>
                <p>We Will Bankrupt Ourselves in the vain Search For Absolute
Security!</p>
                <a href="#about" class="btn btn-primary btn-xl page-scroll">Find Out
More !</a>
            </div>
        </div>
    </header>


    <!-- jQuery -->
    <script src="vendor/jquery/jquery.min.js"></script>
```

```
            <!-- Bootstrap Core JavaScript -->
            <script src="vendor/bootstrap/js/bootstrap.min.js"></script>

            <!-- Plugin JavaScript -->
            <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery-easing/1.3/jquery.easing.min.js"></script>
            <script src="vendor/scrollreveal/scrollreveal.min.js"></script>
            <script src="vendor/magnific-popup/jquery.magnific-popup.min.js"></script>

            <!-- Theme JavaScript -->
            <script src="js/creative.min.js"></script>

        </body>

        </html>
        """)
    else:
        print("<script>alert('DB Error');location='index.py';</script>")
except Exception as e:
    print(e)
```

OWNER MODULE

```
#!C:\Users\chands\AppData\Local\Programs\Python\Python37/python.exe
print("content-type:text/html\r\n")
import cgi
import pymysql
form=cgi.FieldStorage()
```

```
sessname=form.getvalue('sname')

sesstype=form.getvalue('stype')

try:


dbcon=pymysql.connect(host="localhost",user="root",passwd="root",database="file_hacking
")

   if(dbcon):

      cursor=dbcon.cursor()

      existsquery="select * from tbl_user_session where username='%s' and
usertype='%s'"%(sessname,sesstype)

      if(cursor.execute(existsquery)==0):

         print("<script>alert('Session is Not Available');location.href='../index.py';</script>")

      else:

            print("""


            <!DOCTYPE html>

            <html lang="en">


            <head>


               <meta charset="utf-8">

               <meta http-equiv="X-UA-Compatible" content="IE=edge">

               <meta name="viewport" content="width=device-width, initial-scale=1">

               <meta name="description" content="">

               <meta name="author" content="">


               <title>File Hacking</title>
```

```
    <!-- Bootstrap Core CSS -->
    <link href="vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

    <!-- Custom Fonts -->
    <link href="vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">
    <link href='https://fonts.googleapis.com/css?family=Open+Sans:300italic,400italic,600italic,700italic,800italic,400,300,600,700,800' rel='stylesheet' type='text/css'>
    <link href='https://fonts.googleapis.com/css?family=Merriweather:400,300,300italic,400italic,700,700italic,900,900italic' rel='stylesheet' type='text/css'>

    <!-- Plugin CSS -->
    <link href="vendor/magnific-popup/magnific-popup.css" rel="stylesheet">

    <!-- Theme CSS -->
    <link href="css/creative.min.css" rel="stylesheet">

    <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media queries -->
    <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
    <!--[if lt IE 9]>
        <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
        <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
    <![endif]-->

</head>
```

```
<body id="page-top">


  <nav id="mainNav" class="navbar navbar-default navbar-fixed-top">

    <div class="container-fluid">

      <!-- Brand and toggle get grouped for better mobile display -->

      <div class="navbar-header">

        <button type="button" class="navbar-toggle collapsed" data-
toggle="collapse" data-target="#bs-example-navbar-collapse-1">

          <span class="sr-only">Toggle navigation</span> Menu <i class="fa
fa-bars"></i>

        </button>

        <a class="navbar-brand page-scroll" href="#page-top">Fog
Computing</a>

      </div>


      <!-- Collect the nav links, forms, and other content for toggling -->

      <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">

        <ul class="nav navbar-nav navbar-right">""")

    print("<li><a class='page-scroll'
href='ownermyprofile.py?sname=%s&stype=%s'>My
Profile</a></li>"%(sessname,sesstype))

    print("<li><a class='page-scroll'
href='ownerfileupload.py?sname=%s&stype=%s'>File
Upload</a></li>"%(sessname,sesstype))

    print("<li><a class='page-scroll'
href='ownerfileview.py?sname=%s&stype=%s'>File View</a></li>"%(sessname,sesstype))

    print("<li><a class='page-scroll'
href='ownerviewuser.py?sname=%s&stype=%s'>User
Download</a></li>"%(sessname,sesstype))
```

```
            print("<li><a class='page-scroll'
href='logout.py?sname=%s&stype=%s'>Logout</a></li>"%(sessname,sesstype))


            print("""</ul>
                    </div>
                    <!-- /.navbar-collapse -->
                </div>
                <!-- /.container-fluid -->
            </nav>

            <header>
                <div class="header-content">
                    <div class="header-content-inner">
                        <h1 id="homeHeading">File Hacking Alert</h1>
                        <hr>
                        <p>We Will Bankrupt Ourselves in the vain Search For Absolute
Security!</p>
                        <a href="#about" class="btn btn-primary btn-xl page-scroll">Find Out
More !</a>
                    </div>
                </div>
            </header>



            <!-- jQuery -->
            <script src="vendor/jquery/jquery.min.js"></script>

            <!-- Bootstrap Core JavaScript -->
```

```
                <script src="vendor/bootstrap/js/bootstrap.min.js"></script>


                <!-- Plugin JavaScript -->

                <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery-
easing/1.3/jquery.easing.min.js"></script>

                <script src="vendor/scrollreveal/scrollreveal.min.js"></script>

                <script src="vendor/magnific-popup/jquery.magnific-popup.min.js"></script>

 <!-- Theme JavaScript -->

                <script src="js/creative.min.js"></script>

            </body>

            </html>

            """)

    else:

        print("<script>alert('DB Error');location='index.py';</script>")

except Exception as e:

    print(e)
```

USER MODULE

```
#!C:\Users\chand\AppData\Local\Programs\Python\Python37/python.exe

print("content-type:text/html\r\n")

import cgi

import pymysql

form=cgi.FieldStorage()

sessname=form.getvalue('sname')

sesstype=form.getvalue('stype')

try:


dbcon=pymysql.connect(host="localhost",user="root",passwd="root",database="file_hacking
")
```

```
    if(dbcon):
        cursor=dbcon.cursor()
        existsquery="select * from tbl_user_session where username='%s' and
usertype='%s'"%(sessname,sesstype)
        if(cursor.execute(existsquery)==0):
            print("<script>alert('Session is Not Available');location.href='../index.py';</script>")
        else:
                print("""


                <!DOCTYPE html>
                <html lang="en">


                <head>


                    <meta charset="utf-8">
                    <meta http-equiv="X-UA-Compatible" content="IE=edge">
                    <meta name="viewport" content="width=device-width, initial-scale=1">
                    <meta name="description" content="">
                    <meta name="author" content="">


                    <title>File Hacking</title>


                    <!-- Bootstrap Core CSS -->
                    <link href="vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">


                    <!-- Custom Fonts -->
                    <link href="vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet"
type="text/css">
```

```
        <link
href='https://fonts.googleapis.com/css?family=Open+Sans:300italic,400italic,600italic,700ita
lic,800italic,400,300,600,700,800' rel='stylesheet' type='text/css'>

        <link
href='https://fonts.googleapis.com/css?family=Merriweather:400,300,300italic,400italic,700,
700italic,900,900italic' rel='stylesheet' type='text/css'>


        <!-- Plugin CSS -->

        <link href="vendor/magnific-popup/magnific-popup.css" rel="stylesheet">


        <!-- Theme CSS -->

        <link href="css/creative.min.css" rel="stylesheet">


        <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media
queries -->

        <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->

        <!--[if lt IE 9]>

            <script
src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>

            <script
src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>

        <![endif]-->


    </head>


    <body id="page-top">


        <nav id="mainNav" class="navbar navbar-default navbar-fixed-top">

            <div class="container-fluid">

                <!-- Brand and toggle get grouped for better mobile display -->
```

```
                    <div class="navbar-header">
                        <button type="button" class="navbar-toggle collapsed" data-
toggle="collapse" data-target="#bs-example-navbar-collapse-1">
                            <span class="sr-only">Toggle navigation</span> Menu <i class="fa
fa-bars"></i>
                        </button>
                        <a class="navbar-brand page-scroll" href="#page-top">Fog
Computing</a>
                    </div>

                    <!-- Collect the nav links, forms, and other content for toggling -->
                    <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
                        <ul class="nav navbar-nav navbar-right">""")
            print("<li><a class='page-scroll'
href='usermyprofile.py?sname=%s&stype=%s'>My profile</a></li>"%(sessname,sesstype))
            print("<li><a class='page-scroll'
href='userfiledownload.py?sname=%s&stype=%s'>File
Download</a></li>"%(sessname,sesstype))
            print("<li><a class='page-scroll'
href='userfiledownloaded.py?sname=%s&stype=%s'>File
Downloaded</a></li>"%(sessname,sesstype))
            print("<li><a class='page-scroll'
href='logout.py?sname=%s&stype=%s'>Logout</a></li>"%(sessname,sesstype))

            print("""</ul>
                    </div>
                    <!-- /.navbar-collapse -->
                </div>
                <!-- /.container-fluid -->
            </nav>
```

```
                <header>
                  <div class="header-content">
                    <div class="header-content-inner">
                      <h1 id="homeHeading">File Hacking Alert</h1>
                      <hr>
                      <p>We Will Bankrupt Ourselves in the vain Search For Absolute Security!</p>
                      <a href="#about" class="btn btn-primary btn-xl page-scroll">Find Out More !</a>
                    </div>
                  </div>
                </header>
 <!-- jQuery -->
                <script src="vendor/jquery/jquery.min.js"></script>
                <!-- Bootstrap Core JavaScript -->
                <script src="vendor/bootstrap/js/bootstrap.min.js"></script>
                <!-- Plugin JavaScript -->
                <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery-easing/1.3/jquery.easing.min.js"></script>
                <script src="vendor/scrollreveal/scrollreveal.min.js"></script>
                <script src="vendor/magnific-popup/jquery.magnific-popup.min.js"></script>
                <!-- Theme JavaScript -->
                <script src="js/creative.min.js"></script>
              </body>
              </html>""")
    else:
        print("<script>alert('DB Error');location='index.py';</script>")
except Exception as e:                  print(e)
```

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9. BIBLIOGRAPHY

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