

# GRAPHICAL PASSWORD AUTHENTICATION SYSTEM

TANISHQ KUSHWAH, UDIT YADAV, UTKARSH KUMAR, SUYASH JETHWANI

Acropolis Institute of Technology and Research, Indore

Computer Science Engineering,

[tanishqkushwahcs19@acropolis.in](mailto:tanishqkushwahcs19@acropolis.in) , [udityadavcs19@acropolis.in](mailto:udityadavcs19@acropolis.in), [utkarshkumarcs19@acropolis.in](mailto:utkarshkumarcs19@acropolis.in) ,

[suyashjethwanics19@acropolis.in](mailto:suyashjethwanics19@acropolis.in)

**Abstract:-** With generation to generation technology is increases of fast in this digital world. As everything is now online, the risk of online crimes are also increasing drastically. To secure our data passwords plays an important role. Therefore we are introducing our project which is an authentication system which help to increase the security of our data. This system combines graphical and text-based passwords. This system gives high level of security to our data.

**Key-Words:-** Digital, Pace, Cybercrimes, Breaches, authentication system, Password, Python, Django.

## 1.Introduction

Password authentication system is an important component for security systems. It provides the basis for access control and user responsibility. While there are various types of user authentication systems, alphanumeric username/passwords are the most common type of user authentication. They are common and easy to implement and easy to use.

Passwords has to be easily remembered by a user, as they have to remember many different password. Users are known to choose easily guessable and short text passwords, which increase the risk of hacking and threads attack. Enforcing a strong password policy sometimes leads to an opposite effect, as a user may have difficulty to remember the password. Another proposed solution is to use graphical passwords, in which graphics (images) are used instead of alphanumeric pass-words. This can be achieved by asking the user to select regions from an image rather than typing characters as in alphanumeric password approaches

This project is use to increase the security of our data and protect our data from external thread like hacking and bots.

## 2.Problem Foundation

### 2.1 Objective

- The main objective of Graphical password Authentication is to manage the security of account, data and files.
- This project is aimed to achieve the highest security in authenticating users.
- With help of this system chances of hacking becomes negligible.
- There would be negligible chances of bot or anyone to crack passwords.

## 2.2 Scope

The scope of the project includes the following:-

- In future it has great scope. It can be used everywhere instead of text-based password .
- We can increase the security of this system by increasing the number of levels/images used.
- Today, there are so many authentication system but they have their own advantages and disadvantages. Text password can be hacked easily with various methods where as biometric authentication can cause more cost.
- This system is more secure and cheap than old methodologies. As well as this system allows more reliable and easily recognizable system to the users.
- Scope of User  
Enter username, password, email during registration and login phase.  
Select an image during registration phase and login phase.  
Click five points during registration phase and login phase.
- Scope of System  
Sign up – this system lets the user select picture and click points in a correct number of clicks.  
Log in – check the user username, password, image and clicked points are valid and exist in the data store.
- There are some application where we can use this system:-
  - Web applications.
  - Mobile lock system.
  - Folder locks system.
  - Desktop security system.

## 3. Literature Review

In today's time, remembering password for any person is difficult as they have so many accounts, application, and data at different devices and websites, it is hard to remember all the password. Therefore, in multiple based system, images are easy to remember for any person for long duration of time. .And this system form a better security for our data and account privacy.

This system is much same as Knowledge based technique as in this system person has to only remember the images. This system is easy to use for any person as they have to click the images accordingly.

## 4. Methodology

In multiple-image schemes, multiple images are presented and a user is required to select images at the positions initially selected. Studies says that people are much better at guessed recall, particularly in recognition of previously experienced. In this authentication system person can remember the password easily for long time.

## 5. Result Discussions

Based on the research, this system is providing better security and this system is also providing ease to the person to remember the password for long time. The main reason to proposed this system is to increase the security of computer system. It can be use in Web Application, Mobile lock apps, and for data security. And it can also use at industry level as their data are so important and they don't want to loose there data. However, since this authentication scheme is not yet widely deployed, the users are still not fully understood and user still need a training about how to use this password authentication system.

## 6. Conclusion

This paper describes a Graphical Password Authentication has the only disadvantage is if users forget the

password, it cannot retrieve it. That's why this system is proposed. This system use images which is easy to remember for any person ant this make this project easy to use. This system really helps to improve the security of our data and private accounts

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## References

1. <https://www.geeksforgeeks.org/graphical-password-authentication/>
2. <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6076505&queryText%3DMulti+Level+Password>
3. <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=5542954&queryText%3DMulti+Level+Password>

## Author's Profile



Udit Yadav is currently in her 7th semester pursuing the degree of Bachelor of Technology from Acropolis Institute of Technology and Research, Bypass Road Manglaya Sadak, Indore, Madhya Pradesh 453771 India. She is a student at Department of Computer Science and Engineering.



Tanishq Kushwah is currently in his 7th semester pursuing the degree of Bachelor of Technology from Acropolis Institute of Technology and Research, Bypass Road Manglaya Sadak, Indore, Madhya Pradesh 453771 India. He is a student at Department of Computer Science and Engineering.



Suyash Jethwani is currently in his 7th semester pursuing the degree of Bachelor of Technology from Acropolis Institute of Technology and Research, Bypass Road Manglaya Sadak, Indore, Madhya Pradesh 453771 India. He is a student at Department of Computer Science and Engineering.



Utkarsh Kumar is currently in his 7th semester pursuing the degree of Bachelor of Technology from Acropolis Institute of Technology and Research, Bypass Road Manglaya Sadak, Indore, Madhya Pradesh 453771 India. He is a student at Department of Computer Science and Engineering.