

Reusable CAPTCHA Security Engine

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Abstract: A CAPTCHA is a type of challenge-response test used in computing to determine whether the user is human. "CAPTCHA" is a contrived acronym for "Completely Automated Public Turing test to tell Computers and Humans Apart", trademarked by Carnegie Mellon University. A CAPTCHA involves one computer (a server) which asks a user to complete a test. While the computer is able to generate and grade the test, it is not able to solve the test on its own. Because computers are unable to solve the CAPTCHA, any user entering a correct solution is presumed to be human. A CAPTCHA is sometimes described as a reverse Turing test, because it is administered by a machine and targeted to a human, in contrast to the standard Turing test that is typically administered by a human and targeted to a machine. For example, human can generally read degraded images, but OCR machines cannot. CAPTCHAs are designed to prevent bots – programs that pose as humans on the Internet – from abusing internet services. Bots, driven not to dominate but to sell, sign up for thousands of free email accounts every minute, sending million:-s of spam messages from them. They infiltrate chat rooms, collecting personal information and posting links to promotional sites. They generate worms, break password systems, invade privacy, and drain resources. To defend e-commerce systems from bots, an increasing number of companies are arming themselves with CAPTCHAs. For example, users registering on Yahoo must first correctly recognize a distorted word displayed against a cluttered background and type it into a box to prove they are human. Such reading-based CAPTCHAs exploit the large gap between humans and machines in their ability to read images of text.

I. Introduction:

The CAPTCHA is used to provide the security against the malicious software by generating a test which only a human can complete. The CAPTCHA stands for completely automated public Turing test to tell computer and human apart. Currently, we are using CAPTCHA are image and text-based data. The reusable CAPTCHA security engine will provide a better way to generating the data for CAPTCHA and will increase the difficulty in bypassing the system by use of improved algorithm.

II. Existing system:

In the existing system we use mainly text based CAPTCHA which we are using from the begging of time, so the today there is some software which can bypass this test. The hacker hacks the data from the system and then they make software according to that and the CAPTCHA is bypassed. While a human need to enter a long sentence in the box before the access to the website. While solving the CAPTCHA is a boring and sometimes even though it is right, it shows error and we can say that at first CAPTCHA use to protect from spam bot, but today bots are defeating the CAPTCHA while sometimes humans can't solve it.

Proposed system:

In the proposed system will generate the CAPTCHA by using a new improved algorithm which will be interesting to solve at the same time it will be tougher than previous to solved by the bots while will feel easy. The humans have limitations on the speed of response then compared to any computer and hence the computer must be slower than the human and so we will make full benefit of this and use it in the proposed system. The system will contain colored graphical interface with the font is limited to two while the border line thickness and color will be fixed. The system will generate random text which will be shorter than the present system but will be difficult to hack as it will randomly generate.

III. Application:

Preventing the comment:

This will protect from the bots are which are used to do the comments on the blog so that the ranking of them increase in the search engine.

Protecting the registration:

It will make sure that no bots can make false email Id and use to get access to different websites.

Protecting email:

This system will secure the email from bots as to view the details of any email from any website it will need to solve the CAPTCHA.

IV. Conclusion

The Reusable CAPTCHA Security Engine is mainly aimed at developing better CAPTCHAs. The best CAPTCHA would allow all human to pass through, while rejecting all machines. We would like to test these CAPTCHAs and invite both users and bots to attack them.

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