

## **Assignment No. 2:** Implement a program to generate & verify CAPTCHA image

**Name:**

**Class:** B.E.

**Division:** A / B/C

**Roll No:**

**Date of Submission:**

**Marks Obtained:** / 10

**Signature of subject teacher:**

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**Title:** Implement a program to generate & verify CAPTCHA image

**Software tool:** Python 3.9.6, IDE Tool, Pycharm

### **Theory:**

A [CAPTCHA](#) (Completely Automated Public Turing test to tell Computers and Humans Apart) is a test to determine whether the user is human or not.

So, the task is to generate unique CAPTCHA every time and to tell whether the user is human or not by asking user to enter the same CAPTCHA as generated automatically and checking the user input with the generated CAPTCHA.

### **[1] Image CAPTCHA**

The CAPTCHA presents characters in a way that is alienated and requires interpretation. Alienation can involve scaling, rotation, distorting characters. It can also involve overlapping characters with graphic elements such as colour, background noise, lines, arcs, or dots. This alienation provides protection against bots with insufficient text recognition algorithms but can also be difficult for humans to interpret. So the very first step, we require CAPTCHA package so open your command prompt and run the following command.

```
pip install captcha
```

### **[2] Audio CAPTCHA**

Audio CAPTCHAs were developed as an alternative that grants accessibility to visually impaired users. These CAPTCHAs are often used in combination with text or image-based

CAPTCHAs. Audio CAPTCHAs present an audio recording of a series of letters or numbers which a user then enters.

These CAPTCHAs rely on bots not being able to distinguish relevant characters from background noise. Like text-based CAPTCHAs, these tools can be difficult for humans to interpret as well as for bots.

### **Procedure:**

#### **Steps to Generating image captcha:**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

### **Conclusion :**