For the collection of the data reynaga used three methods which are given below (Reynaga, G., et. al., 2015).

1. Logs
2. Questionnaires
3. Observations
4. Satisfaction Survey
5. Interview Data

The alternatively technique that can be employed for the data collections are given below.

1. Online Websites and blogs
2. Human Interaction devices
3. Interaction with users
4. By different sessions or podcasts

They basically targeted the captchas by implementing the WoZ user study designs followed by 9 types of captcha scheme used as a security technology, which are all described and presented below. Each of the three basic forms of captcha (CR, IR, and MIOR) was represented by five distinct current schemes, two of which were mobile-friendly. These schemes comprised PC and mobile versions (Reynaga, G., et. al., 2015).

1. **reCAPTCHA:** which is used a lot on the internet, requires that you know and type in two words or numbers (Google., 2013).
2. **NuCaptcha:** is a commercial MIOR scheme that requires the user to either read alphanumeric characters that overlap as they swing independently left to right (with a static pin in the middle of each letter) or read a uniquely colored code word in a phrase that loops endlessly within the captcha window. Both ways are used to stop software from solving the captcha automatically (NuCaptcha., 2014).
3. **Asirra:** is a deployable research IR captcha, and the challenge was to choose 12 different pictures of cats from a grid. have both dogs and cats in them. The photo database first showed up at Petfinder, a business that helps people adopt pets (PetFinder., 2014). The person who put these pictures on the website has already put tags on them (Microsoft., 2012).
4. **Picatcha:** is a paid IR captcha that works on mobile devices. This captcha is made up of eight different pictures, and the user has to pick one of them. A user might have to pick symbols that look like horses, monitors, or hands, among other things. There is no set number of correct target photos because it depends on the task (Picatcha., 2014).
5. **Emerging:** is a research proposal that talks about the worries about NuCaptcha's safety. The challenge is to recognize three different alphabetical or numeric characters. The three figures keep moving across the canvas while sitting on top of a wave (Xu, Y., Reynaga, G., et. al., 2013).

With the goal of streamlining the user experience on mobile devices, we built mobile versions of several of the five schemes. These methods were used to accomplish this goal.

1. **Gesture reCaptcha:** This method is a CR captcha that uses reCaptcha's API to create challenges. The challenge is still given in its original form, but the way to answer it has changed. With the assignment comes a blank canvas for drawing on. The user types in each character one at a time by drawing it on the canvas in the right place. The artwork is then found, and the character that it represents is typed into the input text space.
2. **Gesture Emerging:** Like Gesture reCaptcha, we changed Emerging captcha so that each of the three letters can be drawn using gestures on a canvas. Using software that can read handwriting, the character is found and then entered automatically into the text input area.
3. **Asirra Slide:** To change the challenge's user interface, we used the Asirra API, which is open to the public. We changed Asirra so that it now shows each image one at a time in a carousel instead of all at once in a grid. The people taking part can move the pictures in either direction and use a steady push to choose the cat pictures. The main function stayed the same, but the user interface was changed so that larger photos could be shown on the mobile screen without having to zoom and so that there was more room to click on individual items.
4. **reCaptcha Buttons:** We were able to make an extra reCaptcha button by using the reCaptcha API. The challenge was given as usual, but the way answers were sent in was changed. The goal of this prototype was to make the keyboard buttons bigger by putting [a-z] and [0-9] on the same set of six buttons. One button grouped the numbers, and the other five buttons grouped the letters of the alphabet. When a button was pressed, a menu would pop up with the characters from that group. People chose characters from the list that came up.

The alternative approach that can be applied to process this study further is e $P Point-Cloud Recognizer and woz on smartphone sensors and multi finger getures (Reynaga, G., et. al., 2015).

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