CLAIMS

What is claimed is:

1. A method for generating security questions, wherein the method comprises:

identifying, by a server, an account to be verified by a security question;

sending, by the server, a security question generation instruction to a user device associated with the account;

receiving, at the server, a reference picture from the user device, wherein the reference picture is generated by the user device based on the security question generation instruction, and the reference picture is one of: (i) a photograph captured by the user device, or (ii) a drawing generated by the user device based on user input;

determining, by the server, one or more feature values of the reference picture;

selecting, by the server from a pool of images and based on the one or more feature values, several confusion pictures corresponding to the reference picture, wherein corresponding one or more feature values for each of the several confusion pictures are within corresponding ranges of the one or more feature values of the reference picture;

generating, by the server, the security question based on the reference picture and the several confusion pictures, wherein the reference picture is a correct answer option and each of the several confusion pictures is an incorrect answer option;

sending the security question comprising the reference picture and the several confusion pictures the to the user device;

receiving, by the server, a selection result returned by the user device;

determining, by the server, whether the selection result corresponds to the reference picture; and

in response to determining that the selection result corresponds to the reference picture, determining that a verification of the account has succeeded.

2. The method according to claim 1, further comprising, prior to generating the security question:

determining that the reference picture satisfies a predetermined condition,

wherein the predetermined condition comprises at least one of the following:

a number of pixels of the reference picture is not less than a predetermined

number of pixels;

a storage occupation space of the reference picture is not smaller than a predetermined storage occupation space; and

a content category of the reference picture does not belong to a predetermined category.

3. The method according to claim 1, wherein determining the one or more feature values of the reference picture comprises:

determining the one or more feature values of the reference picture based on a predetermined feature extraction model,

wherein the predetermined feature extraction model comprises at least one of a color feature model, a graphics feature model, and a complexity feature model, and wherein the one or more feature values comprise at least one of a color feature value, a shape feature value, and a complexity feature value.

4. The method according to claim 1, wherein selecting the several confusion pictures corresponding to the reference picture comprises:

determining the ranges corresponding to each of the one or more feature values of the reference picture based on a predetermined value setting policy; and

selecting the several confusion pictures in accordance with the ranges.

5. The method according to claim 1, wherein a difference between a maximum value of one of the ranges and a feature value of the one or more feature values of the reference picture is not greater than a predetermined maximum value, a difference between a minimum value of the one of the ranges and the feature value of the reference picture is not less than a predetermined minimum value, and the feature value does not fall within the one of the ranges.

6. The method according to claim 1, further comprising, prior to generating the security question:

blurring the reference picture, and using a picture obtained after the blurring as a copy of the reference picture;

sending an instruction for deleting the reference picture to the user device; and

locally storing the reference picture and the copy of the reference picture.

7. The method according to claim 1, wherein the method further comprises:

determining to store the security question when the selection result corresponds to the reference picture; or

deleting the security question when the selection result does not correspond to the reference picture.

8. The method according to claim 1, wherein the method further comprises:

sending query information about whether to store the security question to the user device; and

storing the security question when the user device returns information indicating that the security question is to be stored; or

deleting the security question when the user device returns information indicating that the security question is not to be stored.

9. A non-transitory, computer-readable medium storing one or more instructions executable by a computer system to perform the method according to any one of claims 1 to 8.

10. A computer-implemented system, comprising:

one or more computers; and

one or more computer memory devices interoperably coupled with the one or more computers and having tangible, non-transitory, machine-readable media storing one or more instructions that, when executed by the one or more computers, perform the method according to any one of claims 1 to 8.

11. A device for generating security questions, the device comprising a plurality of modules for performing the method according to any one of claims 1 to 8.