CLAIMS

1. A toilet system comprising a processor configured to:

detect a state inside a toilet cubicle;

determine an occurrence of an abnormality and a type thereof based on the detected state;

in response to determining the occurrence of the abnormality, notify an administrator terminal of the occurrence of the abnormality;

control opening and closing of a door in accordance with the type of abnormality in response to a cancellation request not having been received from the administrator terminal within a predetermined time after determining the occurrence of the abnormality; and

not control the opening and closing of the door in response to the cancellation request having been received from the administrator terminal within the predetermined time after determining the occurrence of the abnormality.

2. The toilet system according to claim 1, wherein the processor is further configured to:

detect a state of a user in the toilet cubicle based on a condition selected from the group consisting of position, shift, and shape of an article in the toilet cubicle;

determine that there is the occurrence of the abnormality in response to the state of the user satisfying the condition; and

in response to detecting the occurrence of the abnormality, perform a control to open the door.

3. The toilet system according to claim 2, wherein:

the condition comprises at least one of: a maximum value of height of the user detected by the processor satisfies or is less than a lower limit value or that the user is inside the toilet cubicle for at least a threshold duration of time.

4. The toilet system according to claim 1, wherein the processor is further configured to:

detect a state of a user in the toilet cubicle based on a condition selected from the group consisting of a position, shift, or shape of an article in the toilet cubicle;

determine that there is the occurrence of the abnormality in response to the state of the user satisfying the condition; and

in response to detecting the occurrence of the abnormality, keep the door in a closed state.

5. The toilet system according to claim 4 wherein:

the condition comprises at least one of: the user is present inside the toilet cubicle over an upper limit value, shape of toilet equipment provided in the toilet cubicle is changed by the user, or that a specific action toward the toilet equipment is conducted by the user.

6. The toilet system according to claim 1, wherein the processor is further configured to:

detect entry or exit of a user to/from the toilet cubicle;

determine that there is the occurrence of the abnormality in response to comparing inside of the toilet cubicle before the user enters and inside of the toilet cubicle after the user leaves and determining that an article that was not present in the toilet cubicle before the entry is present in the toilet cubicle after the exit; and

in response to determining occurrence of the abnormality, perform a control to close the door.

7. A toilet management method executed by a computer, the method comprising:

detecting a state inside a toilet cubicle;

determining an occurrence of an abnormality and a type thereof based on the detected state;

in response to determining the occurrence of the abnormality, notifying an administrator terminal of the occurrence of the abnormality;

controlling opening and closing of a door in accordance with the type of abnormality in response to a cancellation request not having been received from the administrator terminal within a predetermined time after determining the occurrence of the abnormality; and

not controlling the opening and closing of the door in response to the cancellation request having been received from the administrator terminal within the predetermined time after determining the occurrence of the abnormality.

8. The method according to claim 7, further comprising:

detecting a state of a user in the toilet cubicle based on a condition selected from the group consisting of position, shift, and shape of an article in the toilet cubicle;

determining the occurrence of the abnormality in response to the state of the user satisfying the condition; and

in response to detecting the occurrence of the abnormality, opening the door.

9. The method according to claim 7, further comprising:

detecting a state of a user in the toilet cubicle based on a condition selected from the group consisting of a position, shift, or shape of an article in the toilet cubicle;

determining the occurrence of the abnormality in response to the state of the user satisfying the condition; and

in response to detecting the occurrence of the abnormality, keeping the door in a closed state.

10. The method according to claim 7, further comprising:

detecting entry or exit of a user to/from the toilet cubicle;

determining the occurrence of the abnormality in response to comparing inside of the toilet cubicle before the user enters and inside of the toilet cubicle after the user leaves and determining that an article that was not present in the toilet cubicle before the entry is present in the toilet cubicle after the exit; and

in response to determining occurrence of the abnormality, closing the door.

11. A non-transitory readable-by-computer recording medium storing a toilet management program that, when executed by a computer, causes the computer to execute a method comprising:

detecting a state inside a toilet cubicle;

determining an occurrence of an abnormality and a type thereof based on the detected state;

in response to determining the occurrence of the abnormality, notifying an administrator terminal of the occurrence of the abnormality;

controlling opening and closing of a door in accordance with the type of abnormality in response to a cancellation request not having been received from the administrator terminal within a predetermined time after determining the occurrence of the abnormality; and

not controlling the opening and closing of the door in response to the cancellation request having been received from the administrator terminal within the predetermined time after determining the occurrence of the abnormality.

12. The medium according to claim 11, wherein the method further comprises:

detecting a state of a user in the toilet cubicle based on a condition selected from the group consisting of position, shift, and shape of an article in the toilet cubicle;

determining the occurrence of the abnormality in response to the state of the user satisfying the condition; and

in response to detecting the occurrence of the abnormality, opening the door.

13. The medium according to claim 12 wherein:

the condition comprises at least one of: a maximum value of height of the user satisfying or being less than a lower limit value or that the user is inside the toilet cubicle for at least a threshold duration of time.

14. The method according to claim 12 wherein:

the condition comprises at least one of: a maximum value of height of the user satisfying or being less than a lower limit value or that the user is inside the toilet cubicle for at least a threshold duration of time.

15. The medium according to claim 11, wherein the method further comprises:

detecting a state of a user in the toilet cubicle based on a condition selected from the group consisting of a position, shift, or shape of an article in the toilet cubicle;

determining the occurrence of the abnormality in response to the state of the user satisfying the condition; and

in response to detecting the occurrence of the abnormality, keeping the door in a closed state.

16. The medium according to claim 15 wherein:

the condition comprises at least one of: the user is present inside the toilet cubicle over an upper limit value, shape of toilet equipment provided in the toilet cubicle is changed by the user, or that a specific action toward the toilet equipment is conducted by the user.

17. The method according to claim 15 wherein:

the condition comprises at least one of: the user is present inside the toilet cubicle over an upper limit value, shape of toilet equipment provided in the toilet cubicle is changed by the user, or that a specific action toward the toilet equipment is conducted by the user.

18. The medium according to claim 11, wherein the method further comprises:

detecting entry or exit of a user to/from the toilet cubicle;

determining the occurrence of the abnormality in response to comparing inside of the toilet cubicle before the user enters and inside of the toilet cubicle after the user leaves and determining that an article that was not present in the toilet cubicle before the entry is present in the toilet cubicle after the exit; and

in response to determining occurrence of the abnormality, closing the door.