

# Research on Hotel Team Check-in Management System based on QR Code

Chengming Liu, Yunqiu Shi, Ke Huang, Yinna Jia

University of Science and Technology Liaoning, Anshan, Liaoning, China

## Abstract

The design discloses a two-dimensional code-based hotel team self-service Check-in system and method, which comprises a self-service machine and a management platform, wherein the self-service machine is connected with the management platform through a network; the self-service machine comprises a two-dimensional code identification module, an ID card information reading module and a room card receiving module; The two-dimensional code identification module and the ID card information reading module are respectively connected with the room card receiving module, wherein the two-dimensional code identification module is used for obtaining the predetermined room information, the ID card information reading module is used for quickly inputting the identity information of the occupants, and the room card receiving module is used for issuing corresponding room cards to the occupants; This design makes the team stay faster, Shorten the time for customers to check in, reduce the expenditure of hotel manpower cost, improve customer satisfaction and save hotel manpower resources.

## Keywords

QR Code; Hotel Team; Check-in; Management System.

## 1. Preface

At present, there is nothing wrong with the hotel self-service terminal when staying alone. However, for large hotels or hotel chain groups, their main customers are mainly team Check-in, while the existing manual checkin method requires the team members to register at the front desk one by one, and the staff manually enter the guest names into the hotel management system. and scan and upload guest ID cards. This traditional method is easy to cause poor guest experience, and the team needs to wait in line for a long time.

## 2. Design Content

The purpose of this design is to overcome the shortcomings of the prior art and provide a hotel team self-service Check-in system and method based on two-dimensional code.

The purpose of this design is realized by the following technical scheme: a hotel team self-service Check-in system based on two-dimensional code comprises a self-service machine and a management platform, wherein the self-service machine is connected with the management platform through a network; the self-service machine comprises a two-dimensional code identification module, an ID card information reading module and a room card receiving module;The two-dimensional code identification module and the ID card information reading module are respectively connected with the room card receiving module, wherein the two-dimensional code identification module is used for obtaining the predetermined room information, the ID card information reading module is used for quickly inputting the identity information of the occupants, and the room card receiving module is used for issuing corresponding room cards to the occupants;The management platform comprises a room management unit and a two-dimensional code generation unit, wherein the room management

unit is connected with the two-dimensional code generation unit and used for managing hotel room information including checked-in rooms and non-checked-in rooms,Generate two-dimensional code information for staying in the corresponding room.

The management platform also comprises a Check-in registration unit which is connected with the two-dimensional code generation unit, and is used for manually registering Check-in for Check-ins and inputting the number of people staying in the team and the required number of rooms to the two-dimensional code generation unit.

A self-service Check-in method of a hotel team self-service Check-in system based on a two-dimensional code comprises the following steps:

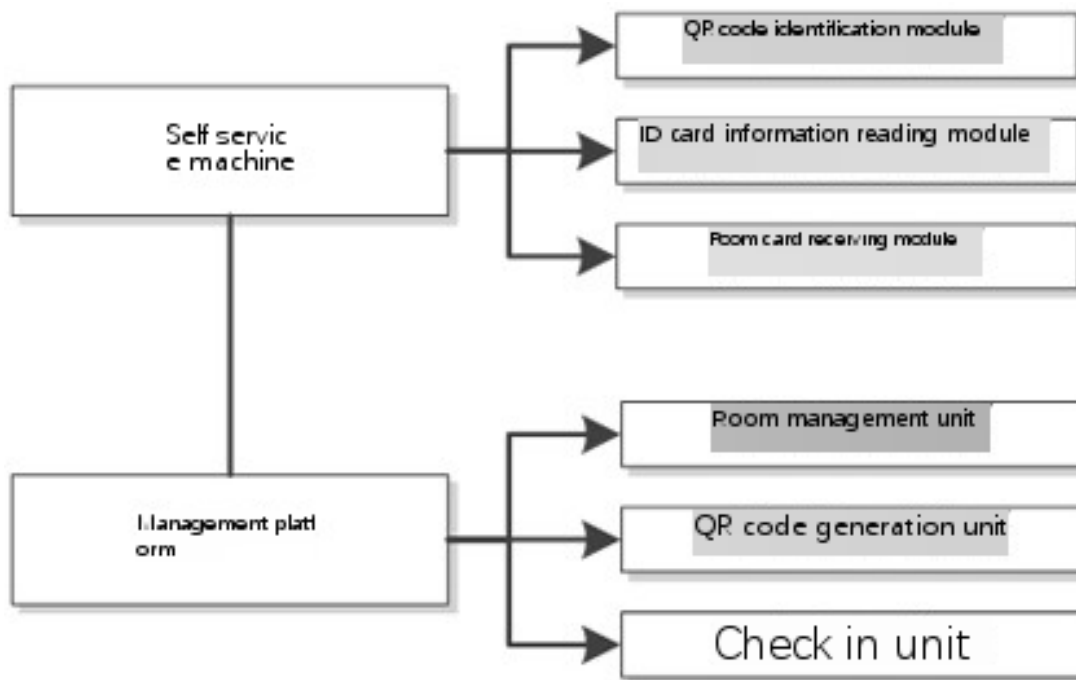


Fig 1. Schematic diagram of system structure

S1, entering the number of people staying in a team and required rooms in batches, and generating corresponding two-dimensional codes for staying according to the entered information;

S2, team members receive the Check-in two-dimensional code, and use the Check-in two-dimensional code to scan the code on the two-dimensional code identification module in the self-service machine to obtain room information;

S3, after the room information is obtained, the ID card is swiped, the self-service machine obtains and records the identity information of the occupant, and after the information is determined and entered, the room card receiving module issues the room card to the occupant.

Two-dimensional code is one person and one yard, and will be invalid immediately after use.

Furthermore, the room card for multiple rooms is only issued once.

### 3. Detailed Description

In order to make the purpose, technical scheme and advantages of this design embodiment clearer, the technical scheme in this design embodiment will be described clearly and completely with reference to Figure 1 in this design embodiment. Obviously, the described embodiments are some embodiments of this design, not all embodiments. Generally, the components of this design embodiment described and marked in the drawings herein can be arranged and designed in various different configurations. Based on the embodiments in this

design, all other embodiments obtained by ordinary technicians in this field without creative labor belong to the protection scope of this design.

The embodiment of the invention provides a hotel team self-service Check-in system based on two-dimensional codes, which comprises a self-service machine and a management platform, wherein the self-service machine is connected with the management platform through a network; the self-service machine comprises a two-dimensional code identification module, an ID card information reading module and a room card receiving module, wherein the two-dimensional code identification module comprises a two-dimensional code quick identification camera; It can identify the information in the two-dimensional code faster and realize fast Check-in registration. The ID card information reading module adopts the reader designated by the public security department, which can quickly and completely obtain ID card information and automatically generate records. The room card receiving module is used for issuing room cards and recycling room cards. The two-dimensional code identification module and the ID card information reading module are respectively connected with the room card receiving module, wherein the two-dimensional code identification module is used for obtaining the predetermined room information, the ID card information reading module is used for quickly inputting the identity information of the occupants, and the room card receiving module is used for issuing corresponding room cards to the occupants.

The management platform comprises a room management unit and a two-dimensional code generation unit, wherein the room management unit is connected with the two-dimensional code generation unit and used for managing hotel room information, wherein the hotel room information comprises checked-in rooms and non-checked-in rooms, The two-dimensional code generation unit generates two-dimensional code information for staying in a corresponding room according to the information of the unoccupied room in the room management unit.

The management platform also comprises a Check-in registration unit which is connected with the two-dimensional code generation unit, and is used for manually checking-in for Check-ins and inputting the number of people staying in the team and the required number of rooms to the two-dimensional code generation unit.

A two-dimensional code-based hotel team self-service Check-in method for a hotel team self-service Check-in system includes the following steps Figure 2:

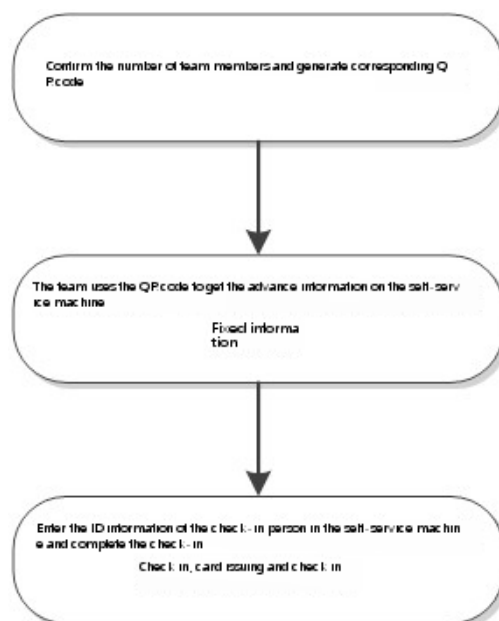


Fig 2. Implementation flow chart of the design

S1, determining and inputting the number of people staying in a team and the required rooms, inputting corresponding information in a Check-in registration unit, and generating a corresponding Check-in two-dimensional code by a two-dimensional code generating unit;

S2, after receiving the Check-in two-dimensional code, the team members use the Check-in two-dimensional code to scan the code on the two-dimensional code identification module in the self-service machine to obtain the predetermined room information and confirm it, and enter the next step of identity information verification and recording after confirming it is correct;

S3, after obtaining the room information, swiping the ID card on the ID card information reading module, acquiring and recording the identity information of the Check-in person by the self-service machine, and issuing the room card to the Check-in person by the room card receiving module after the information is determined and entered, thus completing the Check-in registration.

The two-dimensional code is one person and one code, which is invalid immediately after use, thus ensuring that the room reserved by customers is not occupied by others, and preventing the two-dimensional code from being stolen by others after use, thus bringing bad user experience to users.

In order to save costs and facilitate management, the room card for multi-person will only be issued once. The non-first Check-in person for multi-person will not receive the room card, but will only be issued to the first Check-in person for multi-person.

#### 4. Concluding Remarks

This design has the following advantages:

- (1) The workload of hotel staff when making reservation orders is reduced, the work efficiency is improved, the manpower can be better distributed to reduce the labor cost, and it is fast and stable;
- (2) This technology can realize large-scale replication, solve the pain points of hotel for team and meeting Check-in, improve user satisfaction, improve staff work efficiency, and reduce the dependence of enterprises on employees.

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