Commercial Exhibition Booking and In-house Team Management System

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Abstract:- Exhibitions are the good chance to show off a product, a skill or a service. These events are organized to provide the perfect platform to represent the business at its best. The management process in these type of exhibitions is manual .i.e. everything is done in paper format. So, to convert this manual system into an online system, this 'COMMERCIAL EXHIBITION BOOKING AND IN-HOUSE TEAM MANAGEMENT SYSTEM' is designed. Considering this system, what is the benefit? So, efficiency is the most suitable answer for this. The problems faced by committee members or organization are during booking of stalls, managing all the stalls, managing all the activities involved and formation of teams for specific work. To overcome these problems and for effortless management of exhibition, this system is designed to digitize the management of exhibition. This web-based system includes the module for booking stalls using FCFS algorithm, team formation and assigning members the different committees using different sorting techniques, ID cards generation for members, revenue reports generation and letter format generation. Thus, this system is designed in order to make the management of such events rapid which will increase the workflow and will reduce the complexities of the management committee and the whole team.

Keywords:- Booking, Exhibition, Reports Generation, Stalls, Team Management.

I. INTRODUCTION

A. Overview

Exhibitions are the events where the dealers showcase their product or services for the commercial purpose. As per the survey of many exhibitions and fairs, the specific places for the stalls are allotted by the organization as per the demand of stall owner and all the work done related to management is done manually [5]. Big events require logistics management. This includes managing the exhibition space .i.e. stall booking and management, organizing the teams and distribute the members into different teams for efficient working [4]. But all the work done here in these type of exhibitions is manual and it is all paper work like first registration through forms and then allotment as per the availability of stalls. So, for the betterment of all the management activities, this system is designed for easy booking of stalls, maintaining the teams and distribution of different work to members by assigning them different teams, generation of ID cards and gate pass generation, generation of revenue reports i.e. the reporting of the amount received and the pending amount and generating the letter formats in the form of pdf. In short 'COMMERCIAL EXHIBITION BOOKING AND IN-HOUSE TEAM MANAGEMENT SYSTEM' will serve as the replacement to the manual system and will make the work easy. [1][4]

B. Problem Statement

The exhibitions and fairs such as Navbharat education expo, Hitavada education expo, Auto Expo, Rotary fair and many more don't have any system for properly managing the events. They face the problems in booking stalls, layout customization for stalls size, team formation for work, duty scheduling of members, etc. The organization committee face the problem due to handling all the work manually which affects the working environment.

C. Objectives

➢ To make the work of organizing committee easy by converting all the manual work into one system with added functionalities.

➢ To facilitate the booking of commercial stalls and to avoid the confusion regarding which stall is booked, in-process or vacant.

➢ To overcome the problem of duty scheduling, team formation for various work, gate-pass generation, id card generation, this system will be helpful.

➢ To reduce the paperwork by sending notification and bills to stall owners and other member via SMS.

➢ To properly manage the time and work of the exhibition.

II. METHODOLOGY

A. Dashboard

The count of total number of stalls, available stalls, total booking amount, received amount, number of stalls in-process and number of booked stalls are displayed on dashboard. Data mining concepts are used for this purpose.

B. Booking Module

In booking module, we have designed a particular layout of the stalls. For booking purpose, we have used 'First- come, First- served' algorithm. It is the algorithm in which the requests of the clients are attended to in the order they are received, without any biases. Three status will be displayed for the particular stall like booked, in-process and active. The stalls which are not booked or that are not under any discussion will show the status as active. The stalls which are under discussion and there are chances to be booked by someone will show the status as in-process and the stalls which are booked and payment is received will show the status as booked. Here, the stalls will be in-process only for 48 hours and if booking is not confirmed within that time, then the stall will automatically come into active state. This is done using the concept of cron job in which the cron jobs can be set to run by the minutes, hours, days or months. A cron job is the scheduled task itself which can be useful to automate repetitive tasks. After selecting the stalls, client details are taken via forms and different modes of payment are also provided i.e. through cash or cheque. [12]

C. Team Management

Here, the details and designation of each member of the organization is taken and then those members are allotted different committees which are listed. This allocation is done using different sorting techniques like selection sort and bucket sort and also rand(). Firstly, the number of teams are calculated and then the number of calculators are calculated. After calculating both, team size is calculated i.e. number of members in each team using formula [9] [10] [11],

Team size=number of members/number of teams

Bucket sort and selection sort are used for this purpose. rand() is used for taking random members and allocating one team to each member.

Syntax:
rand (1, $last_member_id)

D. Id Card and Gate Pass Generation

Client details are taken at the time of booking the stall and using the data mining concepts ID card is generated. Gate pass will be for clients on which their pending amount and extra charges will be displayed. [14]

E. Revenue Reports Generation

After the booking of all the stalls, the revenue reports are generated in which total revenue generated and balance amount of each client is shown. Here also the concepts of data mining are used which is the process of extracting useful information from large amount of data.

F. Letter Format

Here, the formats are generated to provide the ease for taking permission of authorities. Permission letters can be generated here. The concept of dom-pdf is used here which is HTML to pdf converter.

III. ARCHITECTURE

Admin can login into this portal by registered mail id and password. This web-based system will include various modules like booking module in which the customized layout will be displayed and one can select the stall and decide whether they have to book or keep it under discussion and after that proceed for further process. Then there is the module of team management in which the team members with their designation are registered and also the different committees are formed. Then these members will be distributed in various teams and they will be notified through SMS. Client details which will be taken at the time of stall booking will be used for their ID card generation. The payment records will be maintained by generating revenue reports of paid and balance amount. Letter formats are also provided here in this system in which the auto generated letters will be formed.
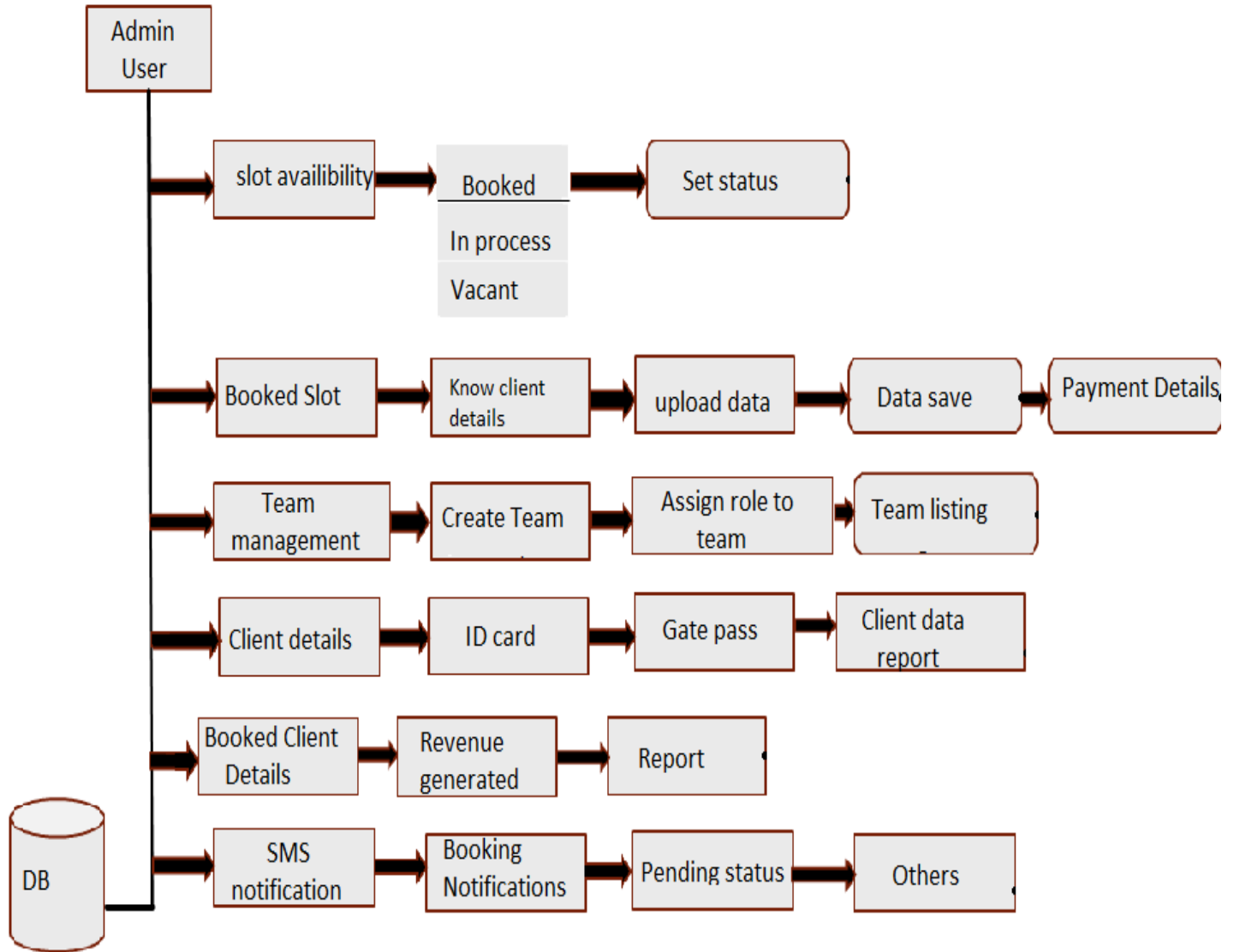
Fig 1:- Architecture of the system

IV. CONCLUSION

The purpose behind development of 'COMMERCIAL EXHIBITION BOOKING AND IN-HOUSE TEAM MANAGEMENT SYSTEM' is to increase the working capability and efficiency of organizing the exhibition. This is the web-based system to manage bookings at commercial exhibitions, check booking scenarios of the event, team management, Payment Analysis and master Accounting Structure , and it also includes notifications through SMS to the respected authority about their duties and to the clients regarding their bookings. This system will make the exhibition management easy. The system will replace the manual system and will help the organizing committee to manage the logistics on single click.

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