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AI Project Report

## Topic- SEAT ALLOCATION SYSTEM

## Section-K18LC

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**ABSTRACT**

Travelling is a large growing business across all countries. Bus/Van seat reservation system deals with maintenance of records of details of each passenger. It also includes maintenance of information like schedule and details of each bus. We observed the working of the Bus/Van reservation system and after going through it, we get to know that there are many operations, which they have to do manually. It takes a lot of time and causing many errors while data entry. Due to this, sometimes a lot of problems occur and they were facing many disputes with customers. To solve the above problem, and further maintaining records of passenger details, seat availability, price per seat, bill generation and other things, we are offering this proposal of computerized reservation system. By using this software, we can reserve tickets from any part of the world, through telephone lines, via internet. Customer can check availability of bus and reserve selective seats. The project provides and checks all sorts of constraints so that user does give only useful data and thus validation is done in an effective way.

**INTRODUCTION**

Seat allocation is a term which is basically concerned with the allocation of the seats. It basically about allocating comfortable seats to the aged and physically handicap traveller’s. The proposed scheme aims to automate the process of assigning the seats to achieve efficient coordination of seat allocation management process in a Bus/Van. It will reduce the time consumption and manual work involved. The proposed scheme allows the admin to manually allocate seats to the person. The application shows that the modules are highly efficient, low-cost, and can be widely used in various cities and states. This project will provide them with the facility to allot sets and maintaining the record of all the staff members. Moreover provides a better and user- friendly platform for theadministrator and staff members to interact with each other more efficiently and interactively.

1. Scope

This system provides functionalities such as addition, deletion and views various types of analytics. This decreases time overhead for admin and manual allotment of seats that could take hours, can be done in just a few seconds or minutes. There is no fear of manipulation of records by unauthorized personnel. All records stored in the system are protected. Files in storage may catch fire or be spoilt in water. But data storage in repositories reduces those risks.All the details need to be entered only once.

1. Objectives
   * Offers the solution for Seat allocation and seat arrangement problems that can be achieved through the proposed system.
   * The proposed system gathers data and methods from a traveller those are being used for their exam class arrangement.
   * Provides a user-friendly interface for the staff members and the administrator to work more efficiently.
   * Proper utilization of the available resources and maintaining all sort of information for future references.
   * The monitoring of the selecting activity and the overall work becomes easy and includes the least of paperwork.
   * It increases the efficiency of the management while offering quality services to staff members.
   * Saves a lot of time and labour.

**LITERATURE REVIEW**

The paper on Automatic Seating &Seat Allocation System [1] by PRAKHAR SHUKLA, GAURAV AKASH,YOGESH KUMAR describes a system where the Seating Arrangement (SA) algorithms discussed in this paper are used to allocate the seating arrangement and the duties during an travel. This software helps user to allocate seats to allocate the duties to the respective staff members and also to develop a seating allocation plan for travelling. The project aims at allocating the seats with much greater effectiveness. The software serves the purpose of saving the manual work and time put into the allocation. This literature review focused on passenger seat comfort and discomfort in a human–product–context interaction. The relationships between anthropometric variables (human level), activities (context level), seat characteristics (product level) and the perception of comfort and discomfort were studied through mediating variables, such as body posture, movement and interface pressure. It is concluded that there are correlations between anthropometric variables and interface pressure variables, and that this relationship is affected by body posture. The results of studies on the correlation between pressure variables and passenger comfort and discomfort are not in line with each other. Only associations were found between the other variables (e.g. activities and seat characteristics). A conceptual model illustrates the results of the review, but relationships could not be quantified due to a lack of statistical evidence and large differences in research set-ups between the reviewed papers.The paper describes an experiment or a literature review related to comfort and/or discomfort measurements in sitting/while seated in combination with measurements of anthropometry and/or pressure measurements.

Practitioner Summary:

**PROPOSED METHODOLOGY**

The system is very simple in design and to implement. The system requires very low system resources and the system will work in almost all configurations. It has got following features: • Needs a lot of working staff and extra attention on all the records.

• Ensure data accuracy. • Records are efficiently maintained by Python.

•Python also provides security for the information.

• Any person across the world, having internet can access this service.

**Modules:**

**Admin**: To generate the bus/Van details to allocation time scheduling by user booking details and allocate the buses.

**User:** Users can register and login with their credentials and book the bus to reserve ticket by giving the journey details. System can generate the booking details according to used details. It justifies the bus booking travel details validation based on the time of journey. Printed document send to user to knowing the details at pdf electronic document for identity purpose.

**RESULT AND DISCUSSION**

**RESULT:-**

From this project we got result that by using AI we can do different things and we can different task related to the daily life . LIke we have given the project Intelligent seat allocation system here in this we have first booked the ticket than for our convienience we have viewed the booking an d according to booking we can alloat the seats according to their age group or perferences.

We have developed a system where we can achieve something that is actually very hectic if we perform it manully but if we try to perform it by this system then it will definetly going to help us . It will reduce our work load.

**DISCUSSION :-**

As we have discussed about this project in our group in we have built a system that can work but for implementation of it in real life we should have to improve it and when we started this project than we taught that it will be easy for us to get something knew or different out of it but actually we have failed but we have learned alloat from this project and we will thing to implement this project in more better form in our capastone projects .

As a group leader I want to say that we have tryed our best but due to less communication we are not able to present it in way that we wanted to.

**CONCLUSION**

Seat allocation directly relates to travelcompanies’ benefits; therefore, how to pro-

mote passengers’ demands and revenue management skills to increase the company’s

profits is a crucial issue. In order to make the passenger load factor and profit-gaining

capacity higher, it is necessary to analyze the passengers’ demands actively and control the seat allocation effectively. The research proposes two novel solutions for seat

allocation planning .Through extensive numerical experiments, the propoare shown to be effective.

Several directions for future investigations can be suggested:

1. This research is based on a single-leg model; multi-leg problems can be further studied. 2. Only passengers of personal tickets are studied in the research. For further research, passengers of group tickets and those who purchase several tickets at the same time are

suggested to be studied.

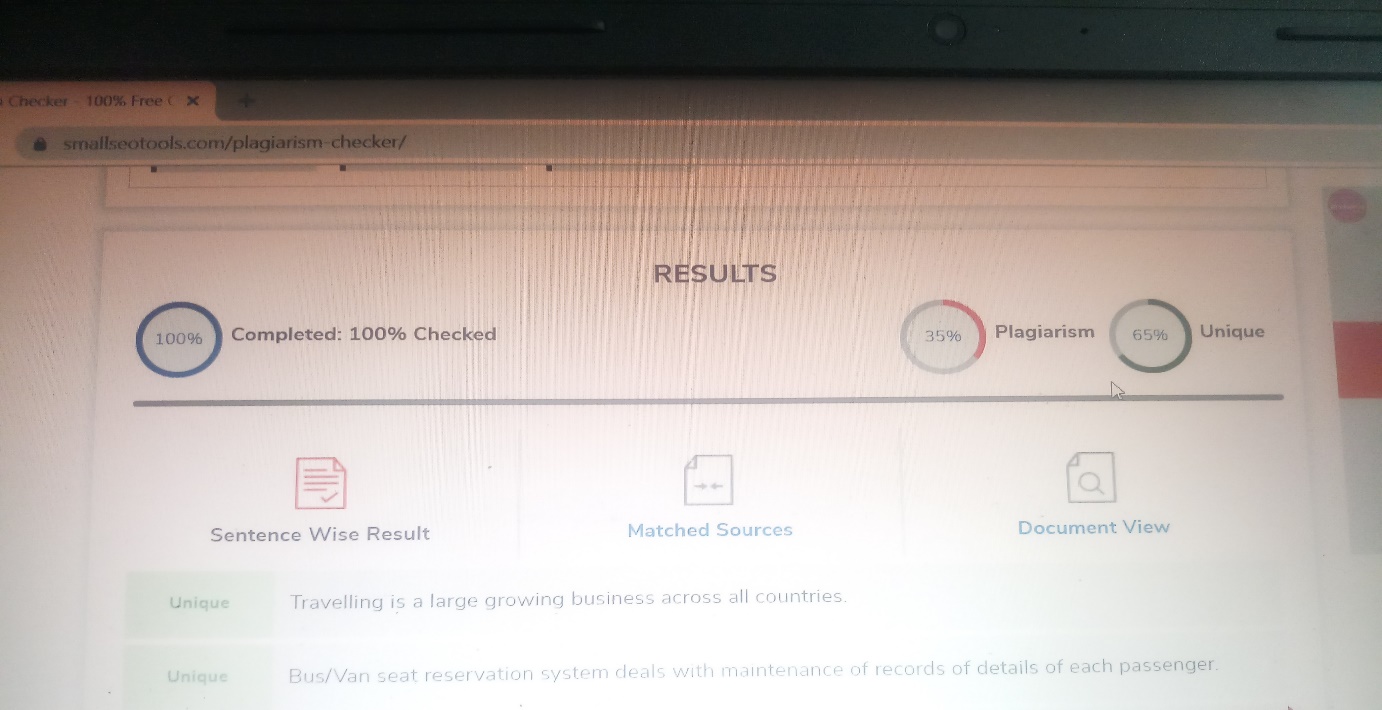
3. Building a database of passengers for research and analysis to study the customer’s choice and purchasing model is recommended for effective travel yield management.

4. Magnificent results can be expected by applying the process proposed in the research to other industries.

**REFERENCES**

* Taken help from the takeoffedugroup.
* Taken help from the IJERT.
* Taken data from the researches made of travel and comfort system.

**PLAGIARISM**

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