FLIGHT TICKET RESERVATION

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ABSTRACT-
 The Flight Ticket Resorvation is a full-stack web application developed using HTML, CSS, and JavaScript for the front-end, .NET for the back-end, and MySQL as the database management system. This project aims to provide a seamless and efficient online booking experience for passengers.
Keywords*: Information system, Database system, DBMS, parent table, child table, table fields, primary key, foreign key, relationship, sql queries, objects, classes, controls**.**

INTRODUCTION
This project Flight Ticket Resorvation is aim to design that can be used over the phone. However, understanding the technology behind booking system is undoubtedly involve the use of latest technology and software and all of these point to detail research which in this project, titled literature review.

1.1 OVERVIEW
The next chapter and its subsections will turn the attention to the method for resolving the problem, the programming environments used for developing the system and the implementation of the operations performed upon the database.

1.2 PROBLEM STATEMENT
This report's documentation goes through the whole process of both application   program and database development. It also comprises the development tools have been utilized for these purposes.

1.3 OBJECTIVES
The next chapter and its subsections will turn the attention to the method for resolving the problem, the programming environments used for developing the system and the implementation of the operations performed upon the database.

2.LITERATURE SURVEY
The scope of the Flight Ticket Resorvation project encompasses various aspects of, good rental servises

2.1 Method
At the very commencement, I proceeded to a decision to carry out the development of my task into the following steps:
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- Exploring the available development environments and techniques.
- Database Analyzing.
- Database design and Implementation.
- Program's Structure Analyzing.
- GUI (Graphical User Interface) constructing.
- Bringing all the stuff together (controls data binding and functions implementation).
- Tests.

Each one of these steps could be explained in some brief details as follows:

- **Exploring the available development environments and techniques :**

There is a lot of programming environments available to be used for such kind of elaborations. The point is to choose such an environment that we will be able to operate with in a convenient and easy

way. This is more or less optional and individual process, that depends on the developer's experience as well.

- **Database Analyzing :**

It concerns all of the demands, put upon the database content and its functionality .The database should be designed and implemented in a way that the user would expect it to be.

- **Database design and Implementation :**

This step is tightly related with the previous one as it is completely determined by the requirements, analyzed and discussed in step2.

- **GUI Constructing:**

- After analyzing the program's structure and defining what it should   consist of, a graphical representation of this stuff is needed in order to enable the user to interact with the data.

- **Bringing all the stuff together:** The next step that should be taken is connecting the program with the database and performing the necessary functionality upon all of the controls.

 Tests: To ensure that everything works properly and as it has been expected, test   performance has to be done upon the system's functionality

2.2 Programming Enviroments

The given task concerns a small company (organization). For instance, for the needs of a small company, we could use one set of tools, but for the needs of a larger one, it would be much better if we apply our approach by using some different, that could be more appropriate and would fit much better the requirements we have to satisfy.

I decided to use the Access Database Environment as a Database Management System and C# as a programming language for developing my project.

Before proceeding to the explanatory notes of how I have developed the software, I would like to take a preview upon the programming tools (environments) that havebeen used during this project's development course.

Database Environment: Access is a typical environment for constructing relational databases.

The database is the skeleton and the underlying framework of most of the contemporary Information Systems. The evolution of the Database systems could be divided into three phases: the Manual-filing System, the File-based systems, and the Database and the Database Management systems (DBMS).

The manual-filing system contains files of information, related to a project, product, task, client, or employee and they are usually labeled and stored in one or more cabinets. The cabinets may be located in the secure area of the building, for safety. To facilitate the process of searching and to find out what we want, more quickly, the different types of item can be put in separate folders and they remain logically related.

Actually, the needs of the contemporary industrial world could not be covered or satisfied by using such kind of systems, and especially what concerns their reliability and efficiency. Thus, we historically reach to the second phase of the Database systems evolution – the File-based systems. This kind of systems had been developed

in response to the needs and demands of industry for a more efficient data access

2.3 Database Analyzing, design and implementation
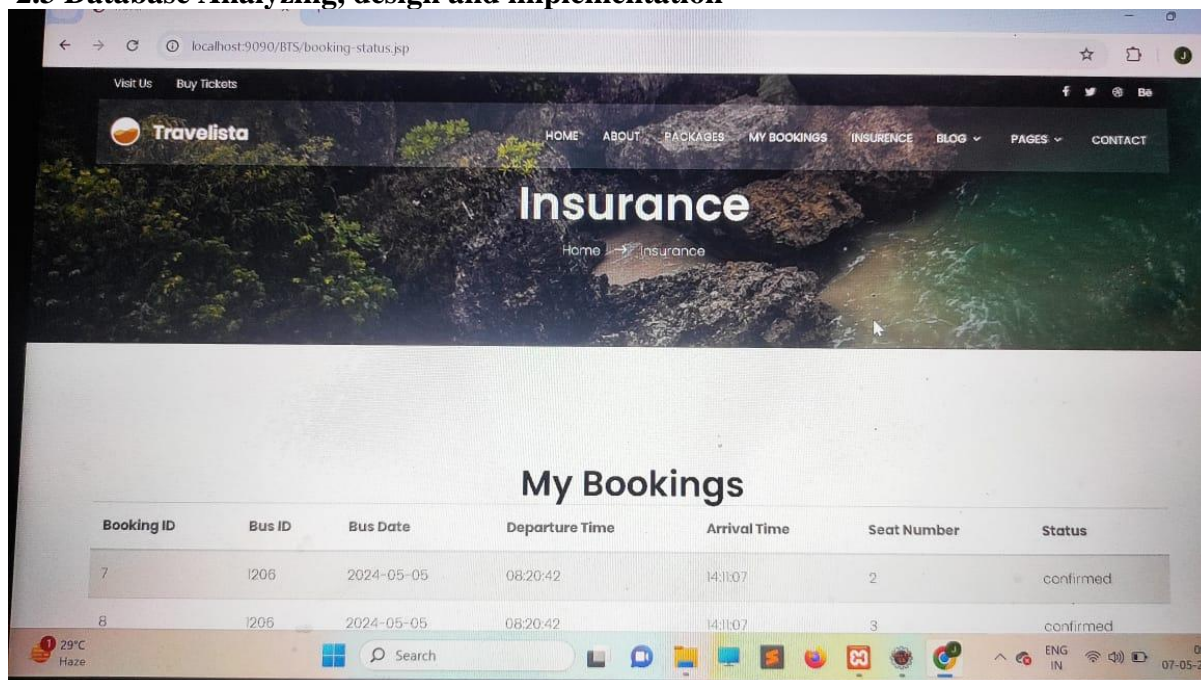
I have constructed a database that consists of five data tables. There will be one main table (parent table) and five child tables, related to each other. Patently, for this purpose the necessary primary and foreign keys should be defined into the responding tables. The so defined structure above is made up in conformity with the user's needs and demands. Each employee of the staff is intended to have several records, responding to his Working History, Contact Person Information, Salary Information, Time Information and Holiday Information, and only one record containing his basic information within the company – his personal details as: date of birth, gender, marital status, address and phone details, and his current working record. An employee is supposed to have not only one record of his Working history, or his Contact Person Information…..For instance, if we take a look to the Time Information data table – an employee may have several records in case he has some experience within the current company. It is absolutely the same with the Salary Information, Contact Person Information and Holiday Information data tables.

The relationships between the data tables are shown in Figure 4-Appendix A. In Figure 4 we can distinguish six tables that the database consists of. All of the relationships are of type: "one-to-many". (For more details about the data tables, see Appendix

2.4 Program's Structure Analyzing and GUI Constructing

After getting the database prepared, application program should be constructed and implemented in some programming environment to enable the users to communicate with the database.

Graphical User Interface (GUI) is intended to be built up as a basic structure of the program. The first general advice when constructing GUIs is to "know thy users" as there is a large number of rules and requirements, concerning the whole process of GUI development. Every GUI consists of certain number of controls (text-boxes, comboboxes, buttons…etc.). The list of all properties and methods for all controls is called Application Programming Interface (API). The Program's GUI is shown in (Appendix B: Figure 1):

 A set of controls is used in order to reach the desired purpose, what concerns the functionality of the application, including Labels, Text boxes, Combo Boxes, Data Grid, Buttons, Group Boxes, Panels, Tab controls etc. All of these controls, available in the program, are fitted to the corresponding forms that are used in the application.

General - used as a platform (Appendix B: Figure 2 Basic form): And a second one (Appendix B: Figure 3) that is loaded onto the first (General) form. One control that is heavily used is the Label control .

For all controls, the default constructor is used as their properties are set after that. A set of Label controls is depicted on Figure 4 – Appendix B. The role of the Label is to point at the responding text field, showing what it is intended to be used for. Other set of controls, used in the program, is the set

of text boxes and combo boxes, shown in Figure 5 – Appendix B. All of the text boxes and combo boxes are marked with greencoloured circle points.

Text boxes can display multiple lines, wrap text to the size of the control, and add basic formatting. The Windows Forms ComboBox control is used to display data in a drop-down combo box. By default, the ComboBox control appears in two parts: the top part is a text box that allows the user to type a list item."

The Program contains two basic forms:

3.METHODOLOGY

The learning procedure starts with the perception of information, so examples can be discovered in information and prevalent choices can be taken later on which depend on the precedents gave.

Certainly! Here's a condensed version:

The output of the application can be inform of a report but mainly will be in the table. The following are the possible tables that will be presumably designed.

Customer Table: showing the customer records

Car Booking : show the booked Car Slot

Payment: showing the payment records.

Cancel: showing cancellation records.

Search: the customer details will be displayed when search is button is clicked and update will be stored in the customer detail records.

This streamlined methodology covers the essential steps in implementing an employee management system.

This extended methodology provides a more detailed overview of the steps involved in developing and implementing an employee management system.

4. RESULT & DISCUSSION

The "Result and Discussion" section of a study on an employee management system would typically present the findings and analysis of the implemented system. Here's how it might be structured:

Results:

• The Car Rental Management system is a complex and critical application that enables customers to search, select, and book the car online. The system should provide a user-friendly interface, fast and accurate search results, and secure payment processing. User Feedback: Present feedback gathered from HR personnel, managers, and employees regarding their experience with the system, including ease of use, efficiency, and effectiveness in meeting their needs.

• Performance Metrics: Provide quantitative metrics on system performance, such as processing time for payroll, accuracy of attendance tracking, and system uptime.

Discussion:

• This chapter is centred on checking if the system is doing what is suppose to be doing. The testing is crucial stage in any development and this project it will be inevitable but also necessary for checking system functionalities. The testing will be of twofold:

• Areas for Improvement: Identify any shortcomings or areas for improvement based on user feedback and performance metrics. Discuss potential enhancements or modifications that could be made to further optimize the system.

• Impact on Organizational Processes: Analyze the impact of the employee management system on organizational processes, such as streamlining HR operations, improving data accuracy, and enhancing communication between departments.

• Integration and Compatibility**: Discuss the integration of the system with existing organizational systems and its compatibility with other software tools. Highlight any challenges or successes in achieving seamless data flow and interoperability.

5.CONCLUSION & FUTURE WORK

In this report, an information system's development has been presented. It was emphasized on the basic steps, consequently taken during the project's development course as a particular attention was

turned to the basic operative functions performed upon the data into the database. The report's content comprises the whole task solution, starting from the programming environments have been selected, going through the database, the application's analyze and construction, and finishing with the code-implementation and test-samples, shown separately in Appendix chapters. As a future work, some additional stuff could be implemented and integrated into the application code making it much more reliable and flexible; especially what concerns a pay-roll module, for instance. Apparently, the role of such systems is basic and essential within each company that wants to keep a really good control and record concerning its personnel data, functionality and performance on all levels in its structure. Every organization, in nowadays, has the necessity of managing its staff on a really good level as the staff has definitely the greatest merit of building up a company as such as it is. The wellmanaged staff means giving the appropriate financial award-ness and all kind of benefits as such as they have been deserved. That's why the development of such systems is not just a programming business – a lot of people are ordinarily involved in such projects and one of the basic requirements is the reliability of the system, especially what concerns the storage of data and all of the operations that will be performed upon it.

Future Directions: Propose future directions for the Car management system, such as additional features or functionalities to be implemented, ongoing maintenance and support strategies, and potential expansion to accommodate organizational growth or evolving needs.

By presenting the results and discussing their implications, this section provides a comprehensive overview of the implemented employee management system, its performance, and its impact on the organisation.

6.REFERENCE

The Flight Ticket Resorvation project is a full-stack web application that allows users to search for Rent the Cars , and manage their bookings. The system is built using HTML, CSS, and JavaScript for the front-end, and .NET with MySQL Database for the back-end.

The front-end of the application provides an intuitive and user-friendly interface .The project's goal is to automate vehicle rental and reservation so that clients don't have to waste time calling and waiting for a vehicle. that allows users to search for car based on their origin, destination, and travel dates. The search results are displayed in a clear and concise manner, allowing users to easily select the one that best suits their needs. Once a Car is selected, users can proceed to rent the car by providing their personal and payment details.

7.APPENDIX OR APPENDICES

This section will give some visual details about the content and the structure of the database that has been designed and constructed for the purposes of the program. • MS-Access (2000):