**Project synopsis**

* **Project Name:**

Parking Management System

* **Project Team:**

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* **Objective:**

The main objective of the Parking Management System is to manage the details of Vehicles, Parking slots, Customer, Parking fees. It manages all the information about types, parking fees, The project is totally administrative end and thus only the administrator can access it.

The purpose of the project is to build an application program to reduce the manual work for managing the vehicles, parking slots. It tracks all details.

* **Features of project:**
* Provides the searching facilities based on various factors such as Customer info, Parking slots, Fees etc.
* It generates the reports Customers, Fees etc.
* You can easily export PDF for the above reports.
* Integration of all records of parking fees.
* **Introduction of project:**

The “ Parking System” has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by the existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering the invalid data. No formal knowledge is needed for user to use this system. Thus by this all it proves it is user-friendly.

Every organization,whether big or small, has challeges to overcome and managing the informations of parking.

* **Scope of the project :**

It may help collecting perfect management in details. In a

very short time, the collection will be obvious, simple and sensible. It will help a person to know the Management of passed year perfectly and vividly. It also helps in current all works relative to Parking System. It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.

Our project aims at Business process automation, i.e. we have tried to computerize various processes of Parking System

* In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time.
* In computer system, it is not necessary to create the manifest but we can directly print it, which saves our time.

* To assist the staffin capturing the effort spent on their respective working areas
* To utilize resources in an efficient manner by increasing their productivity through automation.

* The system generates types of information that can be used for various purposes.
* It satisfy the user requirement
* Be easy to understand by the user and operator
* Be easy to operate
* Have a good user interface
* Be expandable
* Delivered on schedule within the budget.

* **Modules of Parking System:**
* **Parking Slots Management Module:** Used for managing the Parking Slots details,
* **Types Module :** Used for managing the details of Types
* **Customers Module :** Used for managing the details of Customers
* **Vehicles Management Module:** Used for managing the information and details of the Vehicles.
* **Parking Fees Module :** Used for managing the Parking Fees details
* **Login Module:** Used for managing the login details
* **Input Data and Validation of Project on Parking System:**
* All the fields such as Parking Slots, Parking Fees, Types are validated and does not take invalid values.
* Avoiding errors in data .
* Controlling amount of input.
* Integration of all the modules/forms in the system.
* Preparation of the test cases.
* Preparation of the possible test data with all the validation checks.
* **The software quality plan we will use the following S0A Strategy:**

1. In the first step, we will select the test factors and rank them. The selected test factors such as reliability, maintainability, portability or etc, will be placed in the matrix according to their ranks.
2. The second step is for identifying the phases of the development process. The phase should be recorded in the matrix.
3. The third step is that identifying the business risks of the software deliverables.The risks will be ranked into three ranks such as high, medium and low.

* **The proposed system has the following requirements:**
* System needs store information about new entry of Parking Slots .
* System needs to help the internal staff to keep information of Vehicles and find them as per various queries .
* System need to maintain quantity record.
* System need to keep the record of Parking Fees.
* System need to update and delete the record.
* System also needs a search area
* It also needs a security system to prevent data.
* **Identification of need:**

The old manual system was suffering from a series of drawbacks. Since whole of the system was to be maintained with hands the process of keeping, maintaining and retrieving the information was very tedious and lengthy. The records were never used to be in a systematic order. there used to be lots of difficulties in associating any particular transaction with a particular context. If any information was to be found it was required to go through the different registers, documents there would never exist anything like report generation. There would always be unnecessary consumption of time while entering records and retrieving records. One more problem was that it was very difficult to find errors while entering the records. Once the records were entered it was very difficult to update these records.

The reason behind it is that there is lot of information to be maintained and have to be kept in mind while running the business .For this reason we have provided features Present system is partially automated (computerized), actually existing system is quite laborious as one has to enter same information at three different places.

* **Conclusion of the Project Parking System:**

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school.

The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

* **Future Scope of the Proiect:**

1. We can give more advance software for Parking System including more facilities.
2. We will host the platform on online servers to make it accessible worldwide .
3. Integrate multiple load balancers to distribute the loads of the system .
4. Create the master and slave database structure to reduce the overload of the database queries.
5. Implement the backup mechanism for taking backup of codebase and database on regular basis on different.

* **Limitation of Project on Parking System:**

Although I have put my best efforts to make the software flexible, easy to operate but limitations cannot be ruled out even by me. Though the software presents a broad range of options to its users some intricate options could not be covered into it; partly because of logistic and partly due to lack of sophistication. Paucity of time was also major constraint, thus it was not possible to make the software foolproof and dynamic. Lack of time also compelled me to ignore some part such as storing old result of the candidate etc.

Considerable efforts have made the software easy to operate even for the people not related to the field of computers but it is acknowledged that a layman may find it a bit problematic at the first instance. The user is provided help at each step for his convenience in working with the sofware.