Web Portal for Vehicle Registration in RTO

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Abstract - **Web portal for vehicle registration in RTO is a composite process and revolves around the management and the control of motor cycle registration. Vehicle registration is the payment of a fee for the use of motor vehicle on public roads. Vehicle registration in India began over 100 years ago starting from the colonial administration and the records then was manually kept which did not help in raising efficiency of the general automotive services. Motor vehicle registration system on the other hand is a phenomenon that is still estranged to the India. Though many western countries e.g. United States of America and some Asian countries have implemented online Vehicle Registration in one form or the other; it is yet to gain popularity in this part of the world. The obvious merit of online motor vehicle registration system prompted this research project to see ways of integrating our vehicle registration to the internet for speed, efficiency, reliability and customer satisfaction. This work was designed to aid the framework for a client server distributed database system for registration of automobiles in India online. The project integrated the government agencies empowered by law for registration. The system was implemented using PHP scripting language, HTML, MySQL Server and Code Loboster.**

Index Terms – **Vehicle registration, RTO, PHP, HTML, MySQL.**

I. INTRODUCTION

Web portal for vehicle registration in RTO is a composite process and revolves around the management and the control of motor cycle registration. Vehicle registration is the payment of a fee for the use of motor vehicle on public roads.

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The project integrated the government agencies empowered by law for registration. The system was implemented using PHP scripting language, HTML, MySQL Server and Code Loboster.

II. SYSTEM DEVELOPMENT

Existing system:

The basic problems facing motor vehicle registration are: lack of proper security in the system that creates avenue for fraud and manipulation of stored data in the system, lack of proper, accurate and concise information about the vehicle owner, poor performance of the system during information retrieval due to inefficient storage of data, lack of proper and accurate record keeping of stored information and finally lack of review process: this is a situation where there is no avenue created for review. This hinders adequate maintenance of the system.

Proposed system:

The significance of this study is to serve better than the existing system, enhance database and improve effectiveness, efficiency and security of the system. Also to give appropriate attention and quick access to prospective application. It is also intended that the study will assist in the development of a new and hopefully better computer aided system.

The research work is restricted to motor vehicle registration procedure that can take place in the motor licensing office. This procedure involves an individual registering to obtain vehicle license if the client meets up with the procedure.

III. PROPOSED MODULES

Admin Session:

In this session the admin can view the user details, approve the newly registered users, approve the Vehicle registration and add the RTO office details, etc.

User Session:

In this session user is a vehicle show room. The user can register the vehicles by filling the form 20, form 21, and form 22. The user can select the number by selecting the two options.

1. Free Select Numbers
2. Paid Select Numbers

Free Select Numbers:

Here we can get the registration number by free after approval from the admin.

Paid Select Numbers:

Here we can select the registration numbers by using the following ways by pay the money.

1. Select by Date of birth
2. Select by date of vehicle purchase
3. Select by pattern numbers
4. Select fancy numbers

User Registration:

In this session the user can register. By giving the show room details like, name, address, and contact details. After the registration the admin can verify the users and approve. After that only the user can able to login and register the vehicle online.

IV. TESTING METHODS

System Testing

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionality of components, sub-assemblies, assemblies and/or a finished product It is the process of exercising software with the intent of ensuring that the software system.

Software system meets its requirements and user expectations and does not fail in an unacceptable manner. There are various types of test. Each test type addresses a specific testing requirement.

Unit Testing

Unit testing involves the design of test cases that validate that the internal program logic is functioning properly, and that program inputs produce valid outputs. All decision branches and internal code flow should be validated. It ithe The testing of individual software units of the application .it is done after the completion of an individual unit before integration. This is a structural testing, that relies on knowledge of its construction and is invasive. Unit tests perform basic tests at component level and test a specific business process, application, and/or system configuration. Unit tests ensure that each unique path of a business process performs accurately to the documented specifications and contains clearly defined inputs and expected results.

Integration Testing

Integration tests are designed to test integrated software components to determine if they actually run as one program. Testing is event driven and is more concerned with the basic outcome of screens or fields. Integration tests demonstrate that although the components were individually satisfaction, as shown by successfully unit testing, the combination of components is correct and consistent. Integration testing is specifically aimed at exposing the problems that arise from the combination of components

Functional Testing

Functional tests provide systematic demonstrations that functions tested are available as specified by the business and technical requirements, system documentation, and user manuals.

Functional testing is centered on the following items:

Valid Input　:　identified classes of valid input must be accepted.

Invalid Input : identified classes of invalid input must be rejected.

Functions　　: identified functions must be exercised.

Output : identified classes of application outputs must be exercised.

Systems/Procedures: interfacing systems or procedures must be invoked.

Organization and preparation of functional tests is focused on requirements, key functions, or special test cases. In addition, systematic coverage pertaining to identify Business process flows; data fields, predefined processes, and successive processes must be considered for testing. Before functional testing is complete, additional tests are identified and the effective value of current tests is determined.

System Testing

System testing ensures that the entire integrated software system meets requirements. It tests a configuration to ensure known and predictable results. An example of system testing is the configuration oriented system integration test. System testing is based on process descriptions and flows, emphasizing pre-driven process links and integration points.

White Box Testing

White Box Testing is a testing in which in which the software tester has knowledge of the inner workings, structure and language of the software, or at least its purpose. It is purpose. It is used to test areas that cannot be reached from a black box level.

Black Box Testing

Black Box Testing is testing the software without any knowledge of the inner workings, structure or language of the module being tested. Black box tests, as most other kinds of tests, must be written from a definitive source document, such as specification or requirements document, such as specification or requirements document. It is a testing in which the software under test is treated, as a black box .you cannot see into it. The test provides inputs and responds to outputs without considering how the software works.

System Implementation

The purpose of System Implementation can be summarized as follows: making the new system available to a prepared set of users (the deployment), and positioning on-going support and maintenance of the system within the Performing Organization (the transition). At a finer level of detail, deploying the system consists of executing all steps necessary to educate the Consumers on the use of the new system, placing the newly developed system into production, confirming that all data required at the start of operations is available and accurate, and validating that business functions that interact with the system are functioning properly. Transitioning the system support responsibilities involves changing from a system development to a system support and maintenance mode of operation, with ownership of the new system moving from the Project Team to the Performing Organization.

A key difference between System Implementation and all other phases of the lifecycle is that all project activities up to this point have been performed in safe, protected, and secure environments, where project issues that arise have little or no impact on day-to-day business operations. Once the system goes live, however, this is no longer the case. Any miscues at this point will almost certainly translate into direct operational and/or financial impacts on the Performing Organization. It is through the careful planning, execution, and management of System Implementation activities that the Project Team can minimize the likelihood of these occurrences, and determine appropriate contingency plans in the event of a problem.

V. CONCLUSION

The Web portal for vehicle registration in RTO has been developed to satisfy all proposed requirements. The process is maintained more simple and easy. The system is highly scalable and user friendly. Almost all the system objectives have been met. The system has been tested under all criteria. The system minimizes the problem arising in the existing manual system and it eliminates the human errors to zero level. The design of the database is flexible ensuring that the system can be implemented. It is implemented and gone through all validation. All phases of development were conceived using methodologies. User with little training can get the required report. The software executes successfully by fulfilling the objectives of the project. Further extensions to this system can be made required with minor modifications.

FUTURE ENHANCEMENT

There are a lot of features and functionalities that can be integrated in the proposed system but the project scope has been limited to diligently resolve the problems as identified in the problem areas above. The project objective has to be achieved pertaining to the Time Constraint and Monetary constraint applied in accordance with the defined functionality of the system. However, features that are not included in the system can be considered as future

enhancements. The limiting areas of the project contributing for enhancement thus are as follows, namely,

Presently the system aims to incorporate the feature of audio conferencing via broadcasting the analog voice signals across the members but does not implement video conferencing so that people can view each other's faces giving it a more surreal feel. The enhancement shall be to manage implementing video conferencing.

REFERENCES

[1] Professional PHP6, By Ed Lecky-Thompson, Steven D. Nowicki, and Thomas Myer , 2009, April.

[2] Learning PHP, MySQL, and JavaScript: A Step-by-Step Guide to Creating Dynamic Websites, By Robin Nixon , 2009, July.

[3] PHP Solutions: Dynamic Web Design Made Easy, By David Powers , 2014, December.

[4] Beginning PHP and MySQL: From Novice To Professional, By W. Jason Gilmore , 2004, June.

[5] Head First PHP & MySQL, By Lynn Beighley and Michael Morrison , 2008, December.

[6] Core PHP programming By Leon Atkinson, ZeevSuraski , 2003, August.

[7] PHP Object-Oriented Solutions By David Powers, 2006, November.