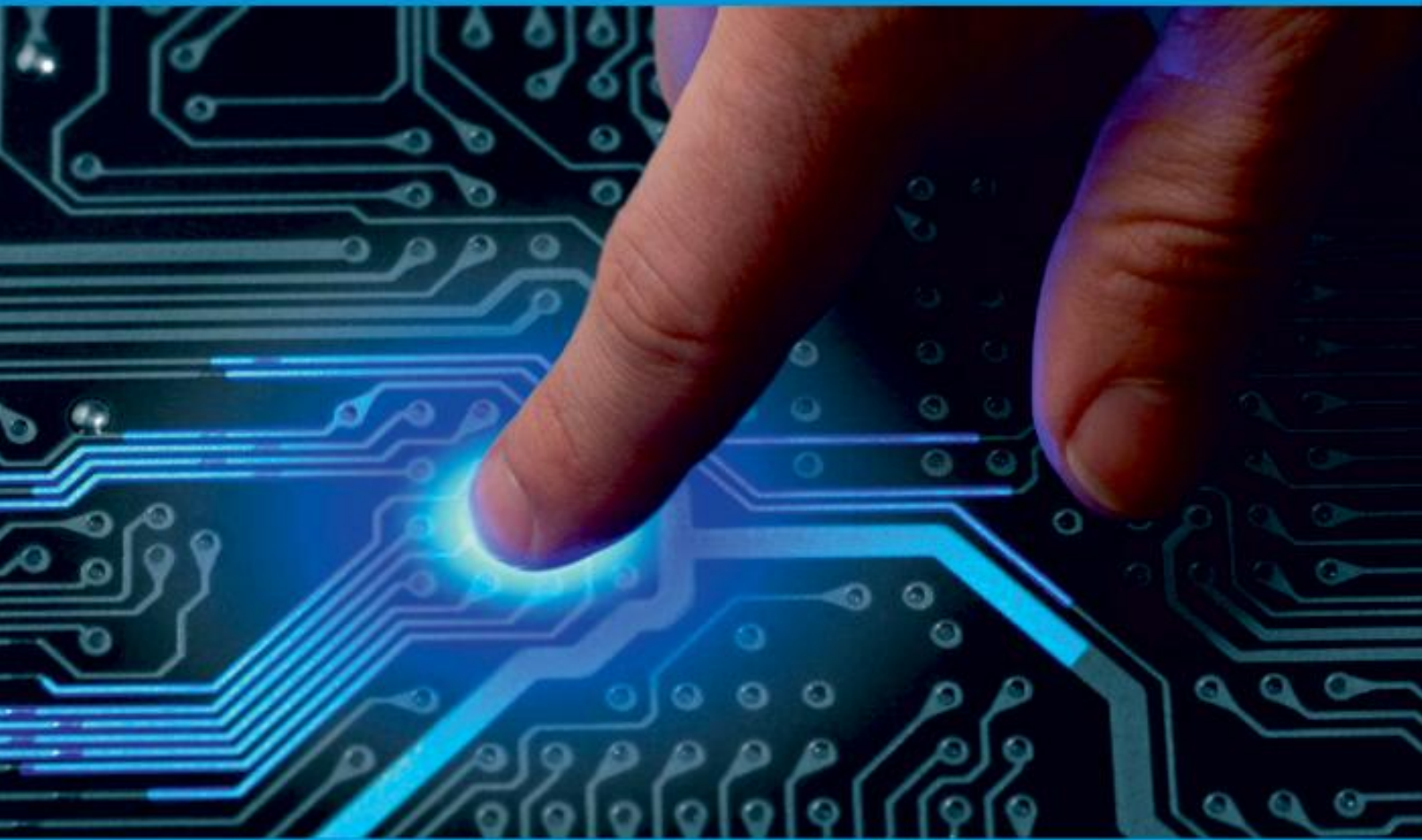




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Web Portal Based Troubleshooting Assistance for Mechanics

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ABSTRACT: It is said that “Enjoy the journey because destination is a mirage”

But what if one gets stuck alone in the middle of journey looking for help and there isn't anyone available. Feels horrible ,doesn't it?

Well we tried one vehicle oriented approach to this relatable philosophy.

As in web development we are looking forward to create such a website that will target the mechanic niche. Thus, opening the doors of many positive possibilities for some needy and skilful vehicle doctors out there too.

We look forward creating an user friendly, responsive, easy to interact web platform, a mechanic portal as a solution for many people with vehicle issues and the mechanics. Where the users will be able to get the issues with their vehicle fixed by hiring a professional nearby.

Similarly the mechanics can register and start serving in their area of interest

So in any case of urgency one should get the help required.

KEYWORDS: Mechanic, Customer, Python, Django, Discharge

I.INTRODUCTION

Troubleshooting for a maintenance is a service of helping people and helping someone is a service to the almighty. A good auto repair manual is one of the most important things for troubleshooting. As in web development we are looking forward to build such a website that will target mechanic niche. If you have any issue with your vehicle, Need instant help. Well our web portal is there for you

The web portal we designed is supported to verify, approve and, in some cases, delete the users profile at administer end in order to achieve privacy, transparency, efficient & safe user experience. This system is designed for the need of clients with vehicle issues and the mechanics looking to serve so that the issues with vehicles can be fixed instantly and the mechanics can freelance accordingly. The web portal proves to be user friendly and responsive as it is compatible with every device. This web application helps for managing records of customers and mechanics in an effective manner along with billing and several other options.

II. LITERATURE SURVEY

We have studied various papers related to the Mechanic Management System.

Troubleshooting websites is usually thought as a linear series of decision that direct the fault isolation. Flowcharts and decision tables are frequently use to lead the novice troubleshooter through series of action that will isolate the fault. To build a web platform for troubleshooting and freelancing, in a deep manner. To achieve an independent forum for any sort of troubleshooting discussion. Providing chat interface between the connected users [2].

According to the Bureau of Labor Statistics, an auto mechanic is a technician that inspects, maintains and repair automobiles and light trucks that run on gasoline, electricity or other alternative fuels, like ethanol. Auto mechanics play a very important role in maintaining and keeping vehicles up and running efficiently [3]. The field of automechanics reveals a long history, specialized schooling and strong career objectives for anyone that would like to choose this field as a carrier. There are certain requirements you have to get to become an auto mechanic. A student can get the basics of automobile repair by taking a vocational class in high school [4].

1. According to AAM yearly recital, data displays that proximately 71% of maintenance is fixed instantly which is assessed as lesser vehicle disruption concern.
2. Lesser vehicle disruption has mapped out in various types like breakdown take off, breakdown heat, lockout, and others.
3. The physical method is restraining personnel as they are incapable to produce quick response because of lack of streamlined strategy with desirable instructions accessible. Speedy reactions aspects are not enough within the prevailing products.
4. Primary goal is to style a technique which will be easy to set up and to supply platform for quick access.
5. Gradually traffic goes increases because of this accident increases for avoid accident difficulty several.
6. Accident prevention by using IR sensors.
7. Therefore, they suggest an Internet Of Things structure for smart wayside assistance system that may provide big selection of assistance to drivers and passengers.

III. EXISTING SYSTEM

Mechanics currently use a manual system for the management and maintenance of critical information. The current system requires numerous paper forms, with data stores, spread throughout the mechanic management infrastructure. Often information (on forms) is incomplete, or does not follow management standards. Forms are often lost in transit between departments requiring a comprehensive auditing process to ensure that no vital information is lost. Multiple copies of the same information exist in the mechanic and may lead to inconsistencies in data in various data stores.

- Transparency between the users is not there.
- In long run, it becomes difficult to maintain records.
- Time consuming.
- It becomes hectic to keep manage unwanted user profiles.

IV. PROPOSED SYSTEM

The proposed system has been developed using, HTML, CSS, Javascript, JQuery and Bootstrap as in front-end and Python with Django in the back-end. Therefore it becomes more user efficient, responsive and effective than the present system. The main aim of troubleshooting website for mechanics is the design of the portal should work to maximize its user-friendliness, making the website ergonomic and intuitive. It should not be complicated, with all sections that are clear and neat labeled and easily found.

To that end of the page, the functions and call to action buttons should be bold, readily available, simple to use and

font size should also be big and should guide the user through the process.[3] When done correctly, the aesthetics and functionality will increase or enhance the total user experience. This means, users are happy to remain in the website for a long time, which increase the number of services they book. If a user likes the website, they are more likely to like the business too. [1]

Premium, high-resolution photography provide visual information, make the website look beautiful or attractive and provide visual context for the products and services on offer.

The Mechanic Management System (MMS) is designed for Any Mechanic to replace their existing manual, paper based system. The new system is to control the following information; vehicle information, shop availability, staff and operating room schedules, and users invoices. These services are to be provided in an efficient, cost effective manner, with the goal of reducing the time and resources currently required for such tasks.

V. PROCESS FLOW

As the user enters the website, the login and register page is displayed. A tab is displayed for contact-us option from where the user can be redirected to feedback section and can email to the admin for any certain issue.

Different login and registration options are available for user of different kinds such as customer login/register and mechanic login/register.

The login and registration are thus carried out after redirecting to specific login/register page after clicking on the view button for the user of respective kind. After a successful registration the user account needs to be verified by the admin end only after that the user can access any particular account. This is done intentionally to tackle any unwanted registration and fake profiles to be formed on the web portal. Making the web portal effective and achieving the transparency between the users.

On this page a message appears that says account is being approved below is a button that logs the user out. The user needs to check if the account gets approved in order to login and access the benefits provided by the web portal.

After a successful approval the user can access thorough profile along with all the services the web portal is supposed to offer. When the user logs in after approval, redirection to the dashboard of respective kind is been done.

Now for any customer profile the user gets respective options. The user is able to look for any mechanic nearby and gets the resolution of the issue raised with the vehicle.

By this time the admin is supposed to send instant resolution and update to the user by notifying and confirming any mechanic nearby.

The mechanics are supposed to register with the mechanic module in our web portal.

The mechanics are registered way earlier on the portal so that a record with all the required details is kept with the admin end.

The task of admin is to discharge a nearby mechanic to the respective location where any certain customer user has raised any possible issue with the vehicle. So that the customer can get issues resolved immediately this is done so that an instant troubleshooting can happen and the respective issues can be fixed without any rush.

The customer user is able to view the details of mechanic nearby similarly the mechanic user can view any certain required detail of the customer in order to form a contact in between them.

The issues with the vehicle can thus be fixed instantly maintaining a transparency between the two users.

The billing and transactions is been done afterwards and the data is stored in the database.

Records are thus kept so that one can reach those when in need.

Further the feedback is welcomed to be submitted of the total process and experience by the users that is been mailed to the administrator so that required improvements can be done if any.

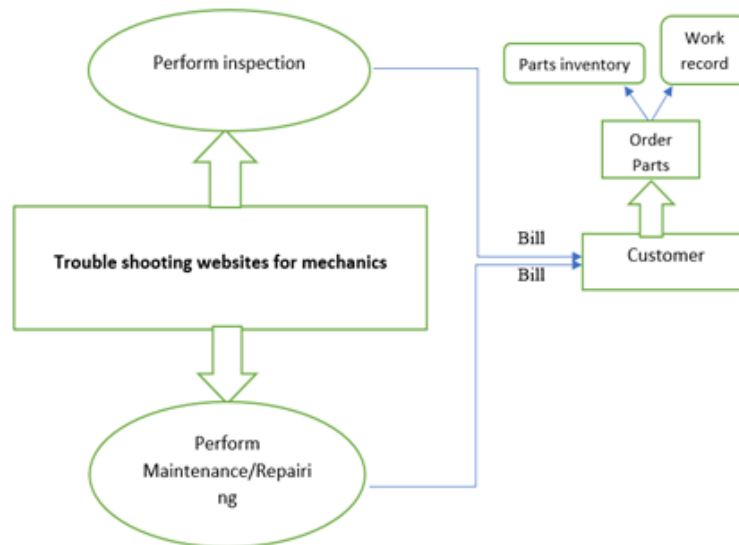


Fig -1:UserFlowChart

VI. MODULES

In the Mechanic Management System, there are three modules.

1. Login/Registration

- Request and accept the details of users
- Store the respective data
- Forward the approval request to the administrators end
- Redirecting the user to the profile after a successful registration and approval of profile

2. Admin

- Verify and approve the user after registration
- Keep record of all the mechanic users and customer users and display at the dashboard
- Discharge mechanic to the required location
- Verify user, delete user or create new user when in need

3. Feedback

- Accept the feedback from the users
- Mail the feedback to the administrator

VII.RESULTS

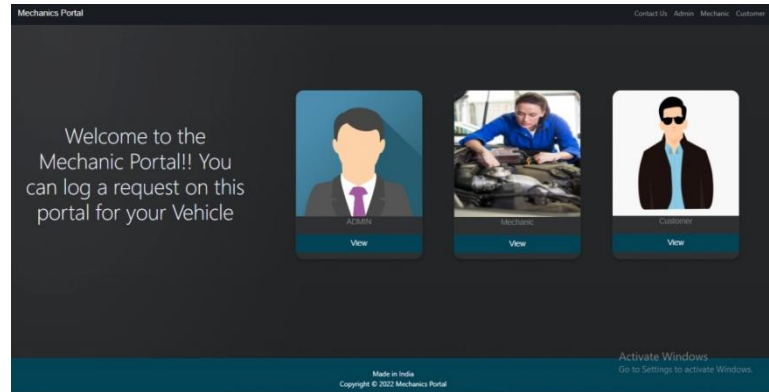


Fig -2:HomePage

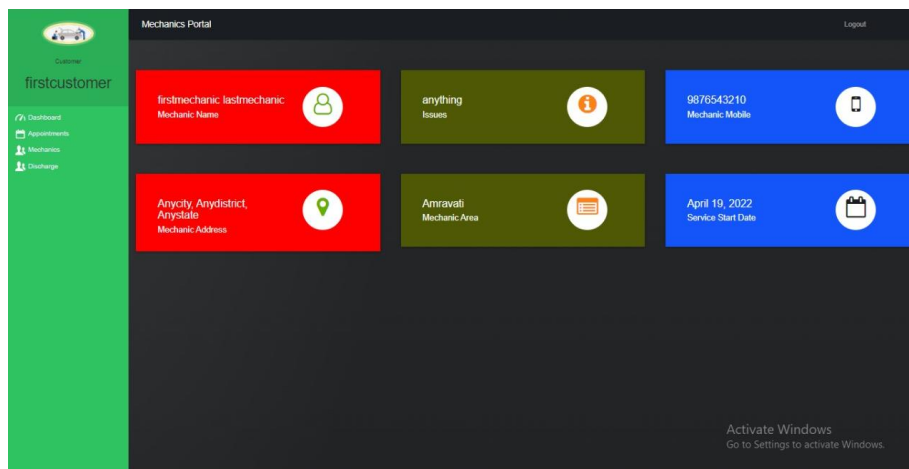


Fig-3:Dashboard

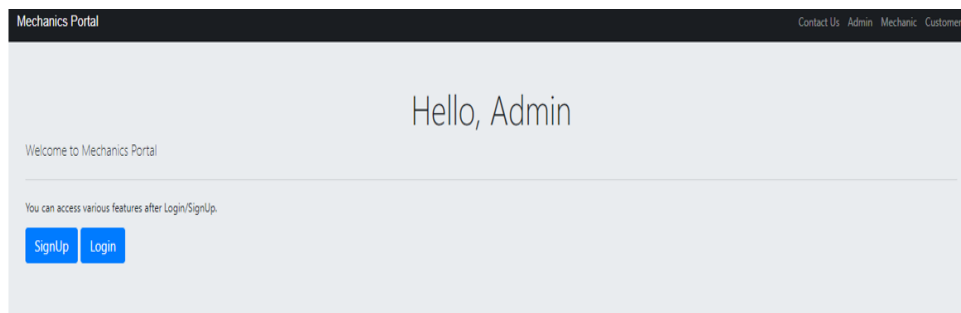


Fig- 4:Login approval

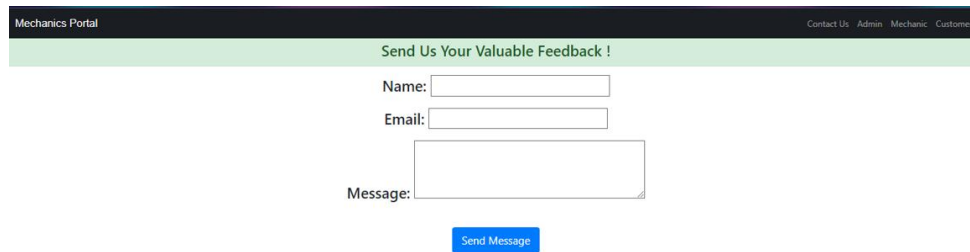


Fig- 5: Feedback Section

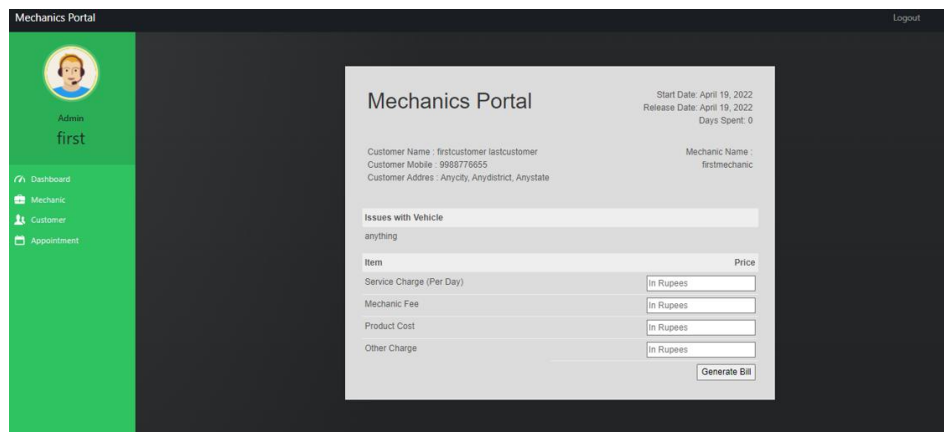


Fig -6: Invoice page

VIII.ADVANTAGES

1. Achieve good quality ratings.
2. Better revenue management
3. Avoid errors and track every single detail
4. Improved decision-making
5. Improve data security

IX.CONCLUSION

Troubleshooting websites is usually thought as a linear series of decision that direct the fault isolation.

With all these in our web portal we achieved an efficient and user friendly user interface along with a method to keep transparency between the users. And managing the modules effectively.

We achieved responsiveness by adding several bootstrap made our front-end look clean and sound with html-css-js and constructed a back-end logic that deals competently with the users interaction.

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