An interactive online methodology to map employee complaints and measure employee satisfaction

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Abstract

The purpose of the proposed system is to show different system behavior, its interfaces to other system and also details of the functionalities. It is mainly concerned with the computer maintenance, here the clients are the employees, and they required to register the complaint through online. By providing this application it is easy to register the complaints as well as giving feedback back to the system admin. The system will allow employee to add or remove the systems for AMC for the financial year depending on the number of systems for AMC the total amount will be calculated. This proposed system is developed to handle complaints related to computer hardware maintenance. Using this software employee can post their complaints online. This software will allow the system admin to process the complaints online. The system admin can allocate the complaints to service engineer and it keeps track of all the hardware repairs, replacements of all the system. The service engineer can update service details, this intern will automatically flow to the employee for his/her feedback. The feedback process is introduced to bring accountability in the system. The main purpose behind development of online complaint system for computer maintenance is to manage complaints registered by the employees which helps organization to keep track of complaints and view the complaint status. The employee can access and lodge their complaints from anywhere.

Keywords: AMC, Complaint, Employee, Service Engineer.

I. Introduction

Online complaint system for computer maintenance aims at providing solution to the complaint submitted by the employees. Each complaint will be given a complaint id for future reference.

- It allows employee to register the systems to AMC through online.
- It allows employee to post complaints through online.
- It provides solution faster.
- Employees are able to check status of their complaints.
- Registered employee can login into the website and post his/her complaints.
- It provides security by not giving authority to access the website.
- It allows systems admin to manage the complaints posted by the user.
The service engineer can properly view the complaints on the screen. The admin can maintain the overall details. The employee can register and login their account by online complaint and edit profile, change password, etc. The online complaint system for computer maintenance helps organization to keep track of complaints and view the complaint status. The employee can access and lodge their complaints from anywhere. If employee have any complaints they have to fill the complaints form and wait for the action to be take, this procedure is time consuming and requires the human effort.

The proposed system aims is to provide solution to the complaints submitted by the employee. The complaints can be forwarded to the service engineer. The service engineer will service the system and update the service details. Since the online system complaint can be solved in a more efficient and transparent way. The proposed online system will be used by the employees of NAL, system admin, and service engineer. Less effort: it requires less human effort.

**Advantage of proposed system**

- It allows employee to register the systems to AMC through online.
- It allows employee to post complaints through online.
- It provides solution faster.
- Employees are able to check status of their complaints.
- Registered employee can login into the website and post his/her complaints.
- It provides security by not giving authority to access the website.
- It allows systems admin to manage the complaints posted by the user.
- The service engineer can properly view the complaints on the screen.

**II. Waterfall Model:**

This method suggests a systematic, sequential approach to software development that being at the system level and progress through analysis, design, coding, testing and maintenance. This model is also called “Linear Sequential Model” as one have to follow all the above five stages sequentially. Also called the “Classic Life Cycle” is the oldest and the most widely used paradigm for Software Engineering.
The Reason for selecting this model: If all the five stages mentioned above are followed sequentially than one may able to prepare the efficient software. It is general practice to do complex analysis and review core functionality before actual coding and testing. On starting we have specify maintain only employee. After one month the requirement for the remaining module was given. So the same step has to repeat so we need to move back to start from analysis stack and that is the main reason to use waterfall model. It refers to the benefits or outcomes we are deriving from the product as compared to the total cost we are spending for developing the product. If the more or less same as the older system, then it is not feasible to develop the product. The financial and economic issues raised during preliminary investigation are as follows: Cost of conducting system study and investigation is justified since the system development is in-house. There is no extra cost of hardware, as it already exists sufficiently.

1. **Employee:**

To perform any operation employee should have valid Id and Password. After login into the system the employee can perform many operations. He/she need to register his systems/computers first, then the employee can post the complaints through online, the sent complaints will go to system admin. The system admin can then assign it to service engineer. The service engineer can then update his serviced details. After viewing of service details the employee can the gives feedback to system admin regarding the service details. If not satisfied
to employee, this will be continued until the employee should satisfy. The employee can delete his/her systems at any time if it is no longer required.

2. **System admin:**

To perform many operations, the system admin should have valid id and password. The system admin module will be controlled by the system administrator. The system admin can have option to view the complaints, and he can assign each complaint to service engineer. The admin will be having many service engineers in his/her section, and each service engineer will have their own id and password. The system admin can view feedback from the employee, if the employee is not satisfied then he/she need to reassign the complaints to the particular service engineer, this will be continued until the employee is satisfied.

The system admin has the responsibility to view the AMC amounts of each system, if any unpaid employee systems present the admin can then delete those systems from the AMC.

3. **ServiceEngineer:**

To perform any operations, the service engineer should have valid id and password. The service engineer in the service engineer module has the responsibility to serve the system problems assigned by the system admin. The service engineer can rectify the hardware problems. The service engineer should mention the details that if any hardware part is replaced or modified. The service engineer can update the service details to employee on each complaint.

### III. Results

Complaint Registry

![Fig 2: Screenshot showing Complaint Registry](image-url)
Using this form employee can register complaints or post his complaints with complain_id and details of complaint.

**View Service Details**

![Fig 3: Screenshot showing Service details](image)

The service details are sent by the service engineer to employee, the employee can give feedback to the system admin using the hyper link feedback.

**View Complaint**

![Fig 4: Screenshot showing Complaint registered](image)
Flow Control

![Flow Control Diagram]

Fig 5: Screenshot showing actions after complaint is registered

Case ID: TC1

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Steps to be Execute</th>
<th>Test Data</th>
<th>Expected Result</th>
<th>Status</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enter Username and Password</td>
<td>Null, Null</td>
<td>Error Message (Username, password is required)</td>
<td>Fail</td>
<td>Rejected</td>
</tr>
<tr>
<td>2</td>
<td>Username and Password</td>
<td>Null, abc</td>
<td>Error Message (Invalid Username/Password)</td>
<td>Fail</td>
<td>Rejected</td>
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<tr>
<td>Sr. No</td>
<td>Steps to be Execute</td>
<td>Test Data</td>
<td>Expected Result</td>
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</tr>
<tr>
<td>1</td>
<td>Select stock ref. No</td>
<td>Null</td>
<td>Error Message (Stock reference no is required)</td>
<td>Fail</td>
<td>Rejected</td>
</tr>
<tr>
<td>2</td>
<td>Select stock ref. No</td>
<td>Valid Stock ref. no</td>
<td>Success Message</td>
<td>Pass</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Select stock ref. No</td>
<td>Invalid</td>
<td>Error Message</td>
<td>Fail</td>
<td>Rejected</td>
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Test case: **Employee Register Systems:**

Case ID: TC2

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<th>Remark</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Complaint_id, Stock_refno, Details</td>
<td>Null</td>
<td>Error Message (Details is required)</td>
<td>Fail</td>
<td>Rejected</td>
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Test case: Employee Feedback

Case ID: TC4

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<th>Expected Result</th>
<th>Status</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Select feedback, and details</td>
<td>Null, Null</td>
<td>Error Message (Detail and feedback required)</td>
<td>Fail</td>
<td>Rejected</td>
</tr>
<tr>
<td>2</td>
<td>Select Service engineer</td>
<td>select</td>
<td>Success Message</td>
<td>Pass</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

IV Conclusion

The proposed system helps to overcome the difficulties in managing the existing manual system. The system has been designed effectively keeping in mind, that the possible future enhancements and additional functionality. It has been designed to run in efficient way. The system is designed to be very user friendly and interactive manner. It emphasizes the importance of timeliness and accuracy that is acquired through automated system. Presently this software handles only complaint related to computer hardware maintenance. In the future the same system can be extended for network issues, software issues, and E-mail issues.

References


