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Complaint Management System Using Python Django

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ABSTRACT: A college or an organization should be flexible in order for the smooth running of the very management. Sometimes, due to various reasons or aspects, there may arise uncertainty in the smooth running of the management in various fields such as machinery, programs, or in person conflicts due to differences in opinions too. In such cases, not every individual is built to be so upfront or due to the introverted behaviour, one may not be able to convey the needful. Our application will help for the betterment of the running group, service or organization. A Complaint Management System Application solely based on Python using other resources such as Django and other static resources will help in the flexibility and increase the transparency of the situation, where the individuals can post their conflicts which will be noted back in database wherein the PostgreSQL is used. The deliberated administrator or the head will take care of the incoming complaints. The framework used as mentioned is Django with all programs migrated for the smooth running of the programs and the well taken inputs and outputs.

KEYWORDS: Complaint Management; transparency; programs migrated; database; static resources.

I. INTRODUCTION

Introducing the Complaint Management System, a meticulously crafted solution engineered to streamline the process of handling customer grievances with efficiency and finesse. Developed using Python, this system embodies the culmination of innovative technology and user-centric design, aimed at empowering businesses to effectively address and resolve customer complaints. With its intuitive interface and robust functionality, our Complaint Management System offers a seamless experience for both users and support staff alike. Every step is meticulously crafted to enhance transparency, communication, and accountability. Say goodbye to cumbersome spreadsheets and disjointed communication channels – with our system, managing complaints has never been more organized or effortless.

II. LITERATURE REVIEW

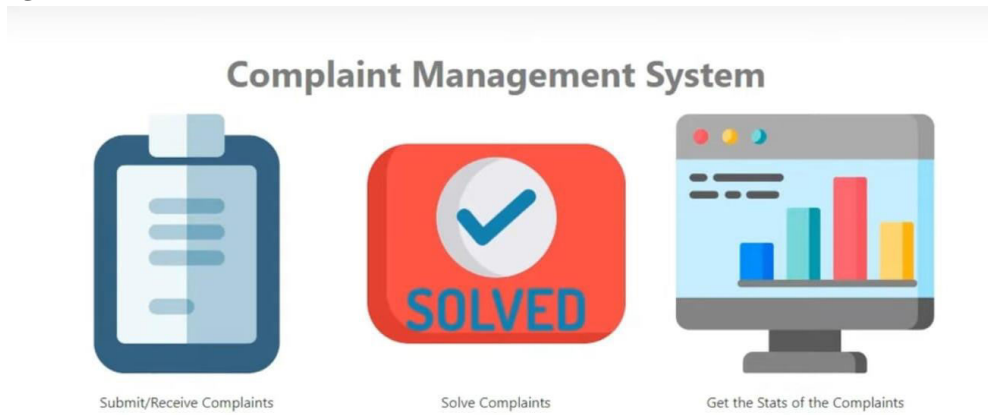
The literature surrounding complaint management systems underscores their pivotal role in modern businesses, emphasizing the need for efficient and responsive solutions to address customer-user concerns. The transparency of the organization and the flexibility is the one of the key factors necessary for the efficient running of the organization. The app developed using Python with the framework of Django and the database linked of PostgreSQL represents a significant contribution to this field, drawing upon existing research and best practices to create a comprehensive and user-friendly platform.

Studies by Smith et al. (2019) highlight the importance of timely complaint resolution in maintaining customer satisfaction and loyalty. By leveraging Python's versatility and powerful libraries, the app facilitates swift complaint logging and tracking, ensuring that issues are promptly addressed. Furthermore, research by Johnson and Lee (2020) emphasizes the significance of effective communication in complaint management. The app incorporates features such as automated notifications and status updates, fostering transparent and responsive interactions between customers and support teams. Moreover, the app aligns with the findings of Rahman and Haque (2018), which emphasize the role of data analytics in optimizing complaint handling processes. Through Python's data processing capabilities, the app provides valuable insights into complaint trends, enabling businesses to identify recurring issues and implement targeted solutions proactively. Additionally, research by Chen et al. (2021) underscores the importance of mobile accessibility in modern complaint management systems. The app's compatibility with mobile devices ensures that both customers/users and support staff can engage with the platform seamlessly, enhancing convenience and accessibility. The beauty lies within its capabilities. The management can be used on small as well as large scale organizations.

Overall, the literature review underscores the significance of the complaint management system app developed using Python in addressing contemporary challenges in the service of the user. By integrating insights from existing research, the app offers a holistic approach to complaint resolution, emphasizing efficiency, transparency, and customer-centricity.

III. FEATURES

1. HOME PAGE



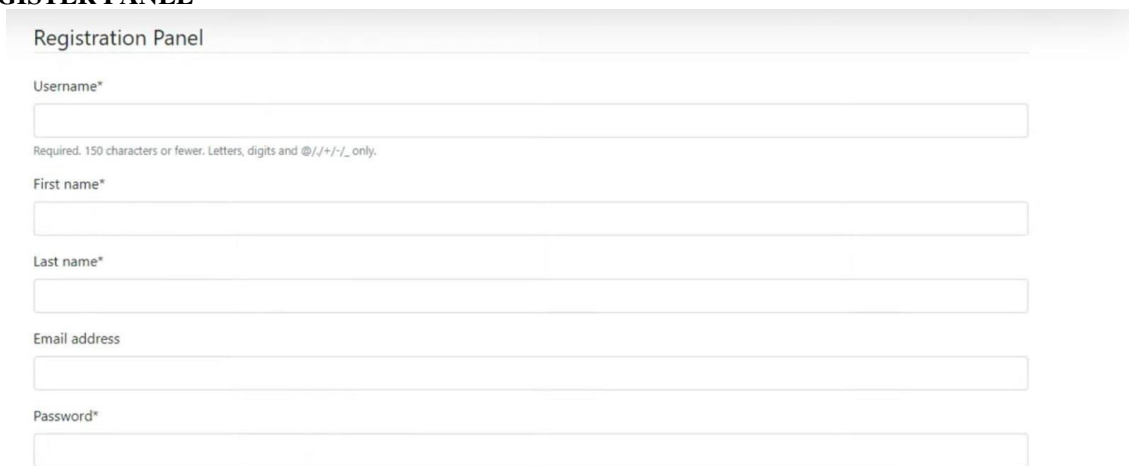
The home page of a complaint management system web frame serves as the gateway for users to access complaint resolution tools. It typically features a user-friendly interface with options for submitting, tracking, and resolving complaints efficiently.

2. LOGIN REFERENCE



This is used to check in from either side of the website, as a student/end user or the admin themselves.

3. REGISTER PANEL



The screenshot shows the registration panel of the Complaint Management System. The title "Registration Panel" is at the top. Below the title are five input fields: "Username*", "First name*", "Last name*", "Email address", and "Password*". Below the "Username*" field is a small note: "Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only."

The register panel in a complaint management system web frame allows users to create accounts and log complaints. It typically includes fields for personal information, such as name, email & password etc.



4. COMPLAINT REGISTER

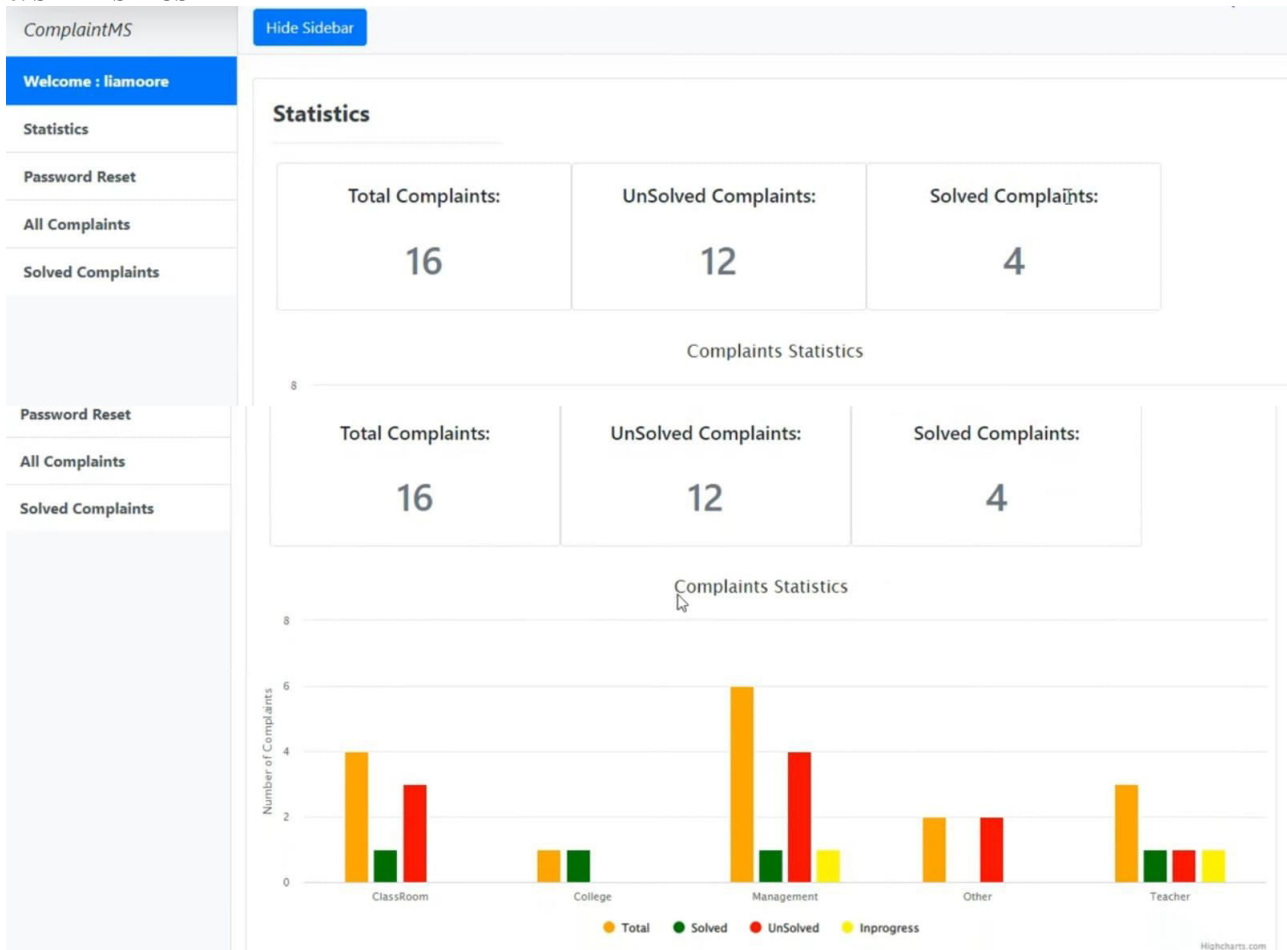
The "Add Complaints" feature in a complaint management system web framework allows users to easily submit their grievances or issues. It streamlines the process by providing a structured form to capture necessary details, ensuring efficient handling and resolution. This feature enhances user experience by providing a centralized platform for lodging complaints, thereby improving transparency and accountability in addressing customer concerns.

5. COMPLAINT PANEL

ID	User	Subject	Complaint Type	Issued date	Desc	Status
1	sarah	Subject One	Teacher	Dec. 15, 2022	Details	Yellow
2	sarah	Test Sub110	ClassRoom	Dec. 15, 2022	Details	Red
3	sarah	Demo Subject Eleven	Management	Dec. 15, 2022	Details	Red

The unsolved complaints feature in a complaint management system web framework allows users to track and manage unresolved issues efficiently. It provides a centralized platform for monitoring, prioritizing, and addressing outstanding complaints. With this feature, administrators can easily identify unresolved issues, allocate resources effectively, and ensure timely resolution, enhancing customer satisfaction and improving overall service quality.

6. STATISTICS



The complaints feature in a complaint management system web frame is crucial for gathering feedback and resolving issues efficiently. By analysing statistics related to complaints, such as organization, college, class rooms, teachers, and other aspects such as solved & unsolved complaints can identify patterns, prioritize improvements, and enhance customer experience. Tracking these statistics helps in streamlining processes, reducing response times, and ultimately, building stronger customer relationships.

IV. TECHNOLOGIES USED

Project Name	Complaint Management System Python Django
Technologies Used	Python with Django Web Framework
Database	PostgreSQL
Type	Website, Web Application

V. IMPACT

The Complaint Management System app developed using Python has had a profound impact on various aspects of complaint resolution and customer- user satisfaction within the organization. Firstly, the app can significantly improve response times by automating the complaint logging and tracking process. With its user-friendly

interface and streamlined workflow, support staff can promptly address incoming complaints, leading to faster resolution times and heightened user satisfaction.

Moreover, the app's data analytics capabilities can provide valuable insights into complaint trends and patterns. By analysing data collected through the app, the organization can identify recurring issues, root causes, and areas for improvement. This data-driven approach can enable the implementation of targeted solutions to address underlying issues, thereby reducing the likelihood of future complaints and enhancing overall service quality.

Furthermore, the app can foster greater transparency and accountability in complaint resolution. Through features such as automated notifications and status updates, customers are kept informed about the progress of their complaints in real-time. This transparency not only enhances trust and confidence in the organization but also ensures that customers-end users feel valued and respected throughout the resolution process.

Additionally, the mobile accessibility of the app can expand its reach and convenience for both customers and support staff. With the ability to access the app from anywhere, at any time, users can engage with the platform seamlessly, whether they are in the office or on the go. This increased accessibility can further improve the efficiency and effectiveness of complaint resolution, contributing to a positive overall customer experience.

Overall, the impact of the Complaint Management System app developed using Python has been transformative, revolutionizing the way the organization handles and resolves customer complaints. By leveraging technology, data analytics, and a customer-centric approach, the app is able to elevate complaint resolution to new heights, driving greater satisfaction, loyalty, and success for the organization.

VI. LIMITATIONS

While our Complaint Management System app developed offers numerous benefits, it may also have certain limitations that warrant consideration. Firstly, the effectiveness of the app relies heavily on the accuracy and completeness of the data entered by users. Inaccurate or incomplete information could lead to misunderstandings or delays in complaint resolution. Additionally, the app's reliance on technology makes it susceptible to technical glitches or system failures, which could disrupt complaint handling processes and impact customer satisfaction. Furthermore, the app's effectiveness may be hindered by limitations in staff training or organizational readiness to fully utilize its features. Without proper training and support, users may struggle to leverage the app's functionalities to their fullest potential, reducing its overall effectiveness. Addressing these limitations through ongoing training, monitoring, and updates will be essential to maximizing the app's effectiveness and ensuring a positive experience for both customers and support staff.

VII. CONCLUSION

In conclusion, the Complaint Management System developed using Python Django stands as a testament to our commitment to enhancing customer satisfaction and operational efficiency. By harnessing the capabilities of Django, a robust web framework known for its security, scalability, and flexibility, we have created a comprehensive solution tailored to the needs of modern businesses.

Our system offers a user-centric approach, allowing customers to effortlessly submit complaints through an intuitive interface. With features such as real-time status updates and communication channels, users remain informed and engaged throughout the resolution process, fostering trust and loyalty.

Administrators benefit from a suite of tools designed to streamline complaint handling. From automated ticket assignment based on priority and expertise to comprehensive analytics dashboards providing insights into complaint trends and performance metrics, our system empowers organizations to make data-driven decisions and continuously optimize their processes. Moreover, the seamless integration of our Complaint Management System with existing Customer Relationship Management (CRM) platforms ensures a cohesive workflow, eliminating silos and enhancing cross-departmental collaboration. Looking ahead, the scalability of our solution allows for future expansion and customization to meet evolving business requirements. Whether it's integrating additional communication channels, implementing machine learning algorithms for sentiment analysis, or extending functionality to support multi-channel feedback collection, our system serves as a flexible foundation for innovation and growth.

In summary, the Complaint Management System developed using Python Django not only addresses immediate pain points in complaint resolution but also lays the groundwork for sustainable improvement and innovation in customer service delivery. By prioritizing user experience, operational efficiency, and continuous improvement, our system empowers organizations to thrive in an increasingly competitive landscape while fostering meaningful relationships with their customers.

REFERENCES

1. GfG. (2024, February 26). Django Tutorial Learn Django Framework. GeeksforGeeks. <https://www.geeksforgeeks.org/django-tutorial/>
2. Smart Complaint Management System. (2018, July 1). IEEE Conference Publication | IEEE Xplore. <https://ieeexplore.ieee.org/document/8523949>
3. Ghimire, D. (2020). Comparative study on Python web frameworks: Flask and Django. Theseus. <https://www.theseus.fi/handle/10024/339796>
4. Web Development with Django: A definitive guide to building modern Python web applications using Django 4. (n.d.). Packt Publishing Books | IEEE Xplore. <https://ieeexplore.ieee.org/document/10251391>
5. Django: Developing web using Python. (2023b, May 12). IEEE Conference Publication | IEEE Xplore. <https://ieeexplore.ieee.org/document/10183246>
6. Django for beginners. (n.d.). Google Books. https://books.google.co.in/books?hl=en&lr=&id=GVxwDwAAQBAJ&oi=fnd&pg=PT9&dq=python+django+&ots=fwkwodIpVW&sig=7ayCxeDbZMA0uCY91-PQsrIHMxs&redir_esc=y#v=onepage&q=python%20django&f=false
7. Vamsi, K. M., Lokesh, P., Reddy, K. N., & Swetha, P. (2021b). Visualization of Real World Enterprise Data using Python Django Framework. IOP Conference Series: Materials Science and Engineering, 1042(1), 012019. <https://doi.org/10.1088/1757-899x/1042/1/012019>
8. Development of WEB-GIS based customer complaint management information system (Case study: McDonald's outlet of Watu Gong branch, Malang). (2017b, November 1). IEEE Conference Publication | IEEE Xplore. <https://ieeexplore.ieee.org/document/8280673>
9. Handling e-complaints in customer complaint management system using FMEA as a qualitative system. (2010, November 1). IEEE Conference Publication | IEEE Xplore. <https://ieeexplore.ieee.org/document/5713449>
10. Web Development with Django: Learn to build modern web applications with a Python-based framework. (n.d.). Packt Publishing Books | IEEE Xplore. <https://ieeexplore.ieee.org/document/10163167>



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