

FEEDBACK MANAGEMENT SYSTEM USING IOT

Prof. Bhushan U. Bawankar¹, Prof. Pradeep N. Fale², Mr. Shailesh V. Ugale³

¹Assistant Professor, Department of Information Technology, YCCE Nagpur.

²Assistant Professor, Department of Information Technology, PCE, Nagpur.

³Software Engineer, PSL, Nagpur.

Abstract : For efficient and quality improvement of an organization, feedback plays a key role in it. With a proper feedback mechanism in place, the growth rate of an Organization shows an upward movement. So we developed a device to overcome the lengthy process of feedback management. Feedback management system is IOT based device which provides a way to allow end users to give feedback for improvement of an organization. People are required to give feedback using one standard and robust feedback device. This Device can be placed anywhere for feedback purposes. Feedback can be taken easily by one click. Feedback records can be viewed easily on web-page. Feedback System for organization have been developed which aims to rate and analyze specific areas performance. This type of Feedback system reduces, the strenuous work of physically examining the feedback pages of each and every individual feedback.

IndexTerms - Analyze, web-page, IoT, feedback, device.

I. INTRODUCTION

For efficient and quality improvement of an educational institute, feedback plays a key role in it. The feedback mechanism device helps in catering the weakness and further strengthening the strengths. In our Project, People are required to give feedback using one button click. This system helps Organization to improve the performance by analyzing the feedback given by people. To deliver excellent results, collect and measure customer feedback to pinpoint emerging issues before they negatively impact your organization. Our feedback system provides Smiley Boxes and digital collection methods to collect massive amounts meaningful user feedback. Data can be analyzed by the dashboard. Intuitive devices allow organizations to achieve high customer feedback response rates. Our database follows the highest performance, security, privacy, and redundancy standards. All data collected is safely stored in our own database. The robust construction of the Feedback device ensures a complete with a battery life of more than a million clicks. Our devices measure satisfaction at every touch point. The physical and digital devices are fully compatible and interconnected. Fire-base Real-time Database, clients will be connected to the database and will maintain an open bidirectional connection via websockets. Then if any client pushes data to the database it will be triggered and (in this case) inform all connected clients that it has been changed by sending them the newly saved data. Returning to the IoT system mentioned earlier, device can now be connected to the Fire-base Real-time Database. Three different coloured push Buttons connected to breadboard with jumper wires. Power Supply to device can be given by battery and also by USB cable. The different colored buttons signify the three moods of our device which are red for "SAD", yellow for "FINE", green for "HAPPY". The end users are made to give their feedback using these buttons and then the feedback is recorded. Then the Filters are applied to the data visible on web page. Data can be viewed or analyzed in the form of bar graph. It is simple and easy to understand the count of each Mood. No formalities of form filling is required in our design. The buttons are mounted on a breadboard and then connected to the node mcu ESP 8266 using copper wires and then the connection is established and then we can add a power supply as per our choice. We can either use a lithium polymer battery (7.4 V) or a USB cable for input power supply.

II. LITERATURE REVIEW

There are various systems made for feedback management based on IOT. Some of the research papers are mentioned below.

[1] Yuichi Kawamoto, Naoto Yamada, Hiroki Nishiyama, Nei Kato; Yoshitaka Shimizu, Yao Zheng "A Feedback Control-Based Crowd Dynamics Management in IoT System".

The development of technologies related to the Internet of Things (IoT) provides a new perspective on applications pertaining to smart cities. Smart city applications focus on resolving issues facing people in everyday life, and have attracted a considerable amount of research interest. The typical issue encountered in such places of daily use, such as stations, shopping malls, and stadiums is crowd dynamics management. Therefore, we focus on crowd dynamics management to resolve the problem of congestion using IoT technologies. Real-time crowd dynamics management can be achieved by gathering information relating to congestion and propose less crowded places. Therefore, in this paper, we propose a model to evaluate the performance of crowd dynamics management applications. Our model uses feedback control theory, and enables an integrated evaluation of the control effectiveness of crowd dynamics management methods under various scenarios.

[2] Sonam Khedkar , Swapnil Thube “Real Time Databases for Applications”.

The purpose of this study is to introduce everyone with real time databases like Google fire-base API, Mongo DB, Re think DB and their features. Fire-base is a Google provided API for database storage and syncing into your android, IOS or web application. Rethink DB is the first open-source, scalable JSON database built from the ground up for the real time web. Mongo DB is a product between relational database and sql database which uses distributed technology. A real-time database is one which stores data to database and fetches data from it very quickly but Firebase is not just a real-time database, it is much more than that. Mongo DB just stores data without explicit and structured mechanisms to link data from different buckets to one another.

[3] Alexander Fabijan Email author Helena Holmström OlssonJan Bosch “Customer Feedback and Data Collection Techniques in Software R&D”

In many companies, product management struggles in getting accurate customer feedback. Although there are techniques available for collecting customer feedback, these are typically not applied as part of a continuous feedback loop.

[4] Michele Nitti, Roberto Girau, Luigi Atzori, Virginia PilloniDIEE, University of Cagliari, Italy “Trustworthiness management in the IoT: The importance of the feedback”.

The Internet of Things (IoT) is creating a world where physical objects are seamlessly integrated to provide advanced and intelligent services for human beings in their day-to-day life style. The realization of complex applications comes from the collaboration of groups of objects; in such a network, objects seek other devices that can provide the services they need for the implementation of the applications they are taking part to. Before exploiting the found services, it is important to evaluate to which extent the potential service providers are trustable. In the resulting trustworthiness management model, an important role is taken by the feedback generated by the consumers of the service.

III. PROBLEM DEFINITION

Giving and analyzing feedback has become very important for growth of any organization. Analyzing users feedback helps to improve existing conditions. To overcome the existing conventional feedback system devices we have developed a feedback system device which provides Smiley Boxes and digital collection methods to collect massive amounts meaningful feedback and also to collect and analyse feedback to pinpoint emerging issues before they negatively impact the organization. Feedback data is received directly to firebase database. Database can be filtered data using type and date. Creating a IoT based device helps in easy connectivity, analyzing, integrating and active engagement.

IV. SYSTEM FLOW DIAGRAM



Fig 4.1 flow diagram

V. CONCLUSION

The design and implementation of Feedback management system device in real time system has been done. As we move forward the feedback is recorded and data is send to the database. After it gets updated in the fire-base database the received feedback is then send to the hosted web-page. The feedback on the web-page has been successfully analyzed by applying necessary filters and also represented in a pictorial form of bar graph. Hence, recording and analyzing of feedback from our device has been accomplished.

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- [2] Sonam Khedkar , Swapnil Thube “*Real Time Databases for Applications*” ,published in International Research Journal of Engineering and Technology (IRJET) ,Issue date 6 june 2017.
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