

User Navigation Tracking and Analysis on Single Page Application

Nale Rajesh Keshav*, Agam Minal Hanumant**, Bhunje Divyanka Vaibhav***, Kalbhor Kshitija Kakaso ****, Shinde Shreyas Surendranath*****

*(Department of Information Technology, SPPU/ SVPM College Of Engineering , Malegaon bk
Email: rajesh.nale@gmail.com)

** (Department of Information Technology, SPPU/ SVPM College Of Engineering , Malegaon bk
Email: minalagam1998@gmail.com)

*** (Department of Information Technology, SPPU/ SVPM College Of Engineering , Malegaon bk
Email: divyankabhunje1399@gmail.com)

**** (Department of Information Technology, SPPU/ SVPM College Of Engineering , Malegaon bk
Email: kshitijakalbhor@gmail.com)

***** (Department of Information Technology, SPPU/ SVPM College Of Engineering , Malegaon bk
Email: shindeshreyas26@gmail.com)

Abstract:

In today’s world the productivity of any organisation is key factor of success of that organisation. The major role in the productivity is efficiency of employee in the organisation or any ERP platforms. The approach is of analysing efficiency is taken into consideration by proposed system. The development of proposed system includes performance and efficiency analysis of employee during his/her working hours .The development includes module deployed on spa framework. In order to gain insights about each employee’s performance the proposed system may carry the reports about the performance of the employee. Tracking the performance includes tracking the activity log of user on entire working module. The entire development of system includes tracking and monitoring the clickstream activities on working module. It will helpful in displaying average performance of employee. So, the whole system is helpful for monitoring and analysing efficiency in real time.

Keywords-SPA-Single page Application, ERP-Enterprise resource management

I. INTRODUCTION

Spa framework includes the handling of module simple way. The entire module can be accessible in single click. To monitor the activities on working module we have to track the entries on the working modules. The database activities such as inserting into database. Deleting ,updating entries in the database can be tracked into the activity log of particular user. Login time for particular user can get monitor. In order to show the total entries record the analysis reports are taken under consideration.what clickstream

activities employee have done which is abnormal click is get tracked. Based upon the analysis results the average performance get analysed.

II.PROJECT AIM AND OBJECTIVE

Aim-

To capture, monitor and analysing database clickstreams activities on SPA.

System Objectives

- SPA Development
- Activity log creation

- Analysis on employee performance
- Easy and efficient reports.
- Real time performance measurement.
- Efficiency analysis.
- Insights for decision making.

III LITERATURE SURVEY

Reference No: 1

Title: “Single Page Architecture as basis for web application”

Author: Klaus N

Year: 2015

Summary: Content of web has evolved from simple documents to rich and interactive applications. In SPA, the application is fully loaded at once and the business logic and transfer to server.

Reference No:2

Title: “Viz-click visualizing clickstream Data “

Author: Rajat kateja

Year: 2016

Summary: A clickstream is defined as the series of mouse clicks made by the user of a website. For websites, clickstream serve as a source of highly valuable information. In particular, it tells the website owners about their users, and what they are interacting with. This information helps in aiding marketing decisions and help in providing a personalized experience

IV. SYSTEM DESCRIPTION

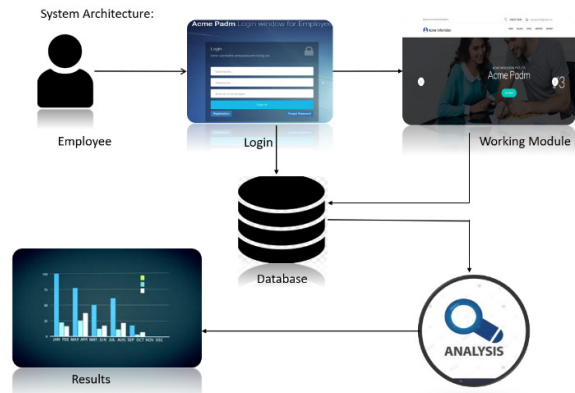
Following is that the mathematical model for User Navigation Tracking Analysis on SPA.

Input: - User clickstream activities

Middle processing: - Activity Log creation, report generation

output: - Final report based on user activities

The entire development of the system includes approach of measuring performance of employee monitoring the employee throughout the working



hours. The session time of employee when get logins and logout from system gives idea about total hours spend by him on working module. The data obtained by storing logs about activity performed by employee is helpful for providing insight about employee work. The data is get visualized and provided in report format any non-technical person can easily analysed the reports. The proposed system is helpful to understand efficiency in better way.

V. EXISTING SYSTEM

Developer: Paul Muret

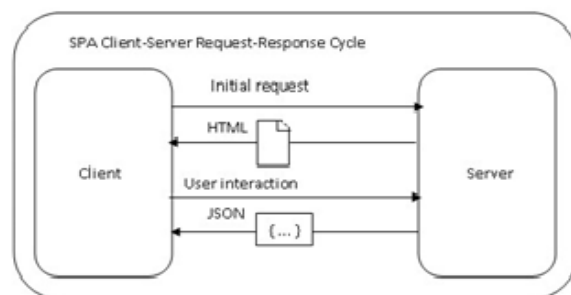
Explanation: The google analytics provides platform for tracking the content of web pages of single page application using analytics.js file. To track the dynamically loaded web pages which are nothing but virtual web pages is done by set command to update tracker automatically. To update tracker, we must provide new page value.

Advantage-1. Beneficial for monitoring purpose.

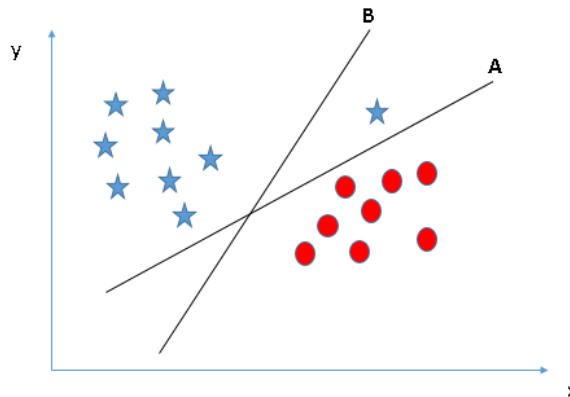
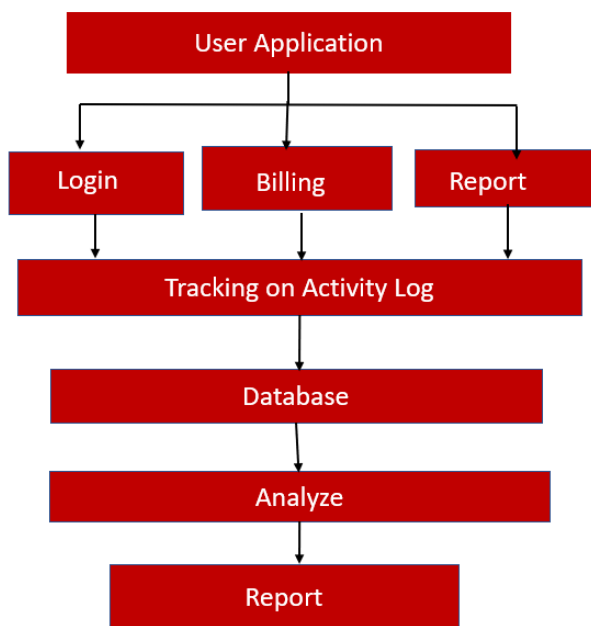
Disadvantage-Third party storage causes security issues.

VI. PROPOSED SYSTEM

SPA ARCHITECTURE: -



Proposed system Flow:



VII. ALGORITHM DESCRIPTION

Support vector machine-

Description- To determine the insights about the employee performance and to decide if whether the employee needed further training to improve performance or not is get analysed by svm classifier. Support vector machine is supervised learning algorithm we are using to specify the need of training to employee

1. Identifying the right hyper plane –for segregating the classes

Here 2 classes 1. training needed to the employee.

2. training is not needed to the employee.

By implementing the code in python platform we can find the expected output results.

I selecting right hyper plane

II classifying the class labels

III Tuning the parameter to svm.

IV Finding expected outcome.

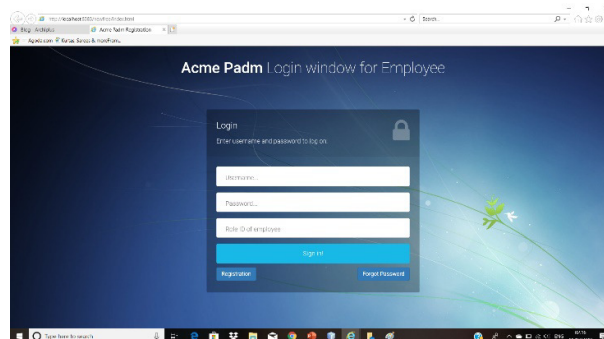
VIII. RESULTS

1) Creation of dummy application.

The results and the GUI of the system is as shown below:

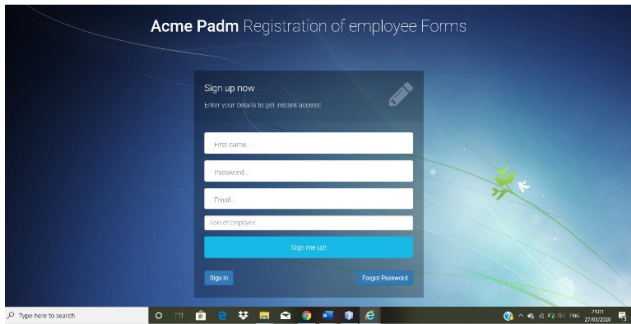
Login Page:

The login page of the application is as follows:



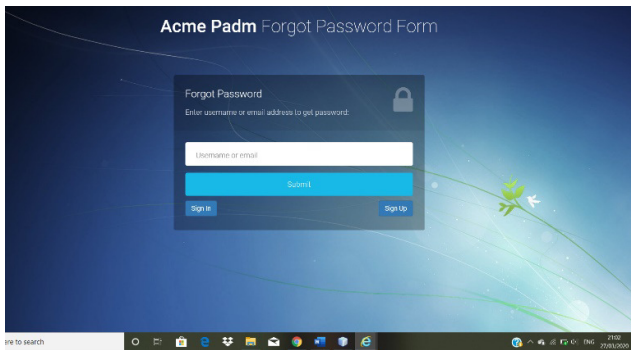
Registration page:

The registration window of the single page application is as follows:



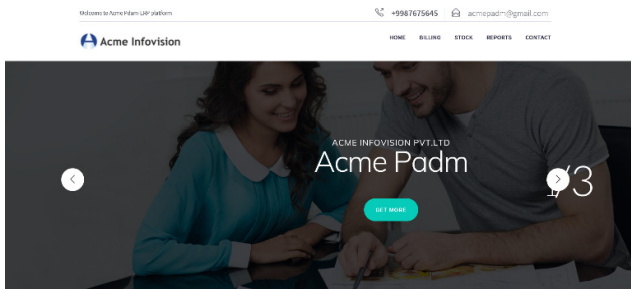
Forgot Password:

The forgot password window of the application is as follows:



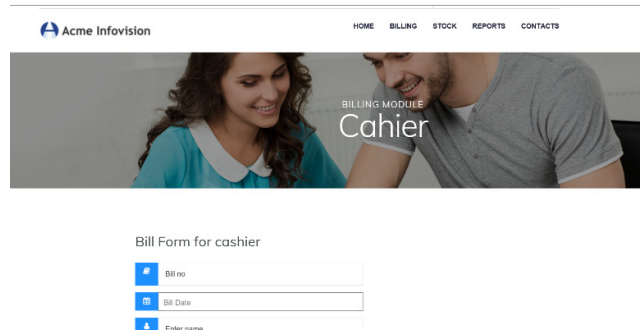
Homepage:

The homepage after the login into the system is as follows:



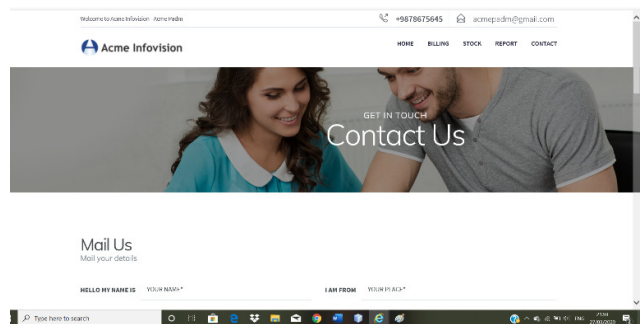
Bill:

The billing module or the GUI of the billing module is as follows:



Contact page:

The another module called the contact module of the application is as follows:



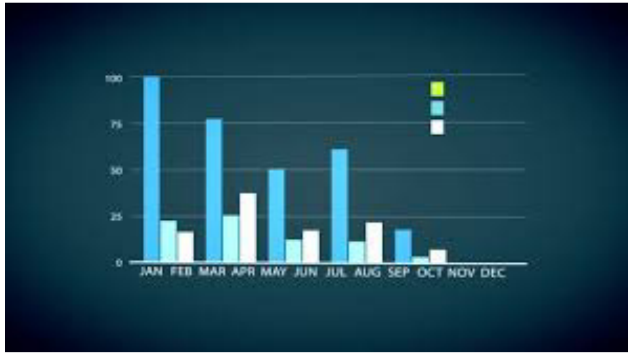
Output:

The results will be shown in the form of the bar graphs or the pie charts which shows the activity graph of the user activities done on the single page application.

The following graphs will show the format of the graphs which will shows the user activities from the login time to logout time on the application the activities such insert, update delete and the clicking activities .

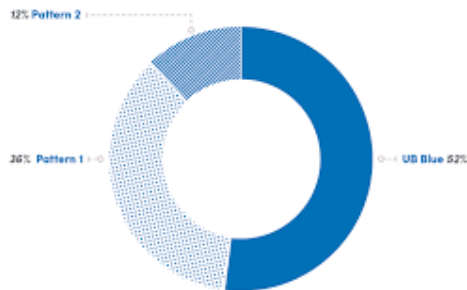
Results-The whole data gathered will be displayed in form of reports in following form:

Bar chart :Results in the form of the Bar chart:



Pie chart:

Results in the form of pie chart showing the activities like insert ,update, delete.



IX. CONCLUSION

The entire development of the system includes approach of measuring performance of employee by monitoring the employee throughout the working hours. The session time of employee when get logins and logout from system gives idea about total hours spend by him on working module .The data obtained by storing logs about activity performed by employee is helpful for providing insight about employee work. The data is get visualized and provided in report format any non-technical person can easily analysed the reports. The proposed system is helpful to understand efficiency in better way.

X. REFERENCES

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