Business Process Monitoring Tool

Problem Statement: What defines the work of a proactive monitoring team? Apart from maintaining the health of the business application, immediate reporting about the anomalies in the daily business problem is an imperative responsibility. The team monitors the business process via CSV files manually. The failures encountered because of the unexpected behavior of the application are manually counted for a fixed interval time-period and represented on a traditional HTML table. The inputs to these tables are also manual.

Proposed solution:

Business Process Monitoring Tool.

Solution:

The data generated from the CSV files are extracted

The data is then transformed, cleaned and massaged to make it readable for the monitoring tool

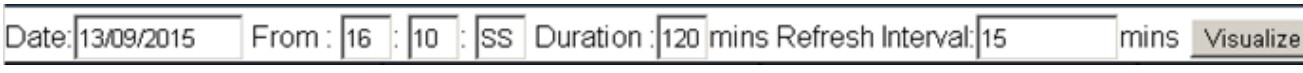
This data is visualized to give a comprehensive view of the past as well as present data, intimating the user about the failure and anomalies

Key Features:

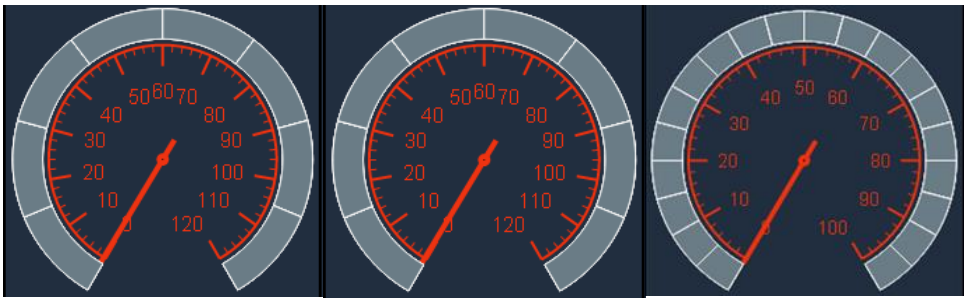
- Moving from traditional table representation to new and unique data visualization.

Resemblance of a speedometer. To read this visualization is very simple. With radial scale showing the timeline, the user will be aware of the status (Failed/Passed) of the business process during that interval of time period.

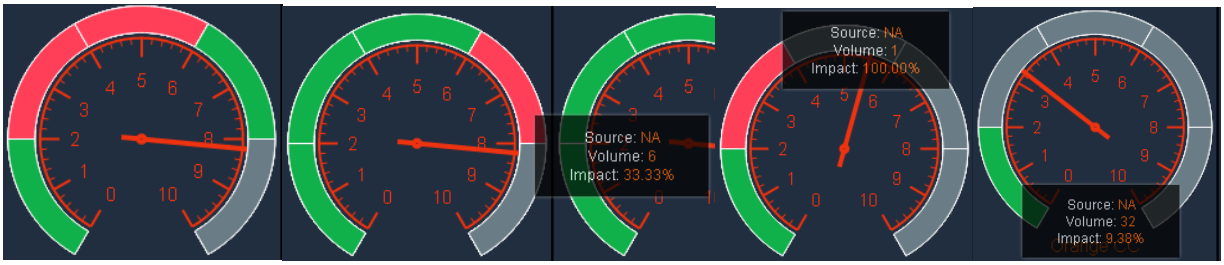
- Customization menu



The presence of customization menu allows the users to visualize data from the past as well as present. Also, the customization menu provides you with ability to visualize the data for any duration (see visualization for 120 min(s)) with another option of adjusting the interval for which the data should be represented.



- Colors do speak. But do they speak enough?



Intriguing status indicators (Passed/Failed) of the business process for that particular time interval. A tooltip functionality enables the user to know more about the status of the business process like what was the total number of requests? What is the impact (failures) incurred in percentage? From what source was the requests were generated and what was their count?

What made this possible?

Understanding the problems faced by the members of the current team enlighten the idea. The need for such a visualization was realized only after sketching the possible solutions as user-stories

Convoluted skills of ETL and Web-Designing paved a way to imagine such an application. As a developer who has worked on both the domain, it helped me understand the potential of each domain and thus realize the end-to-end solution

Under the Hood:

The technologies used to make this tool up and running:

JavaScript and AJAX

- D3.js (Data-Driven Documents): D3.js is a JavaScript library for manipulating documents based on data
- Crossfilter: Crossfilter is a JavaScript library for exploring large multivariate datasets in the browser
- Dc.js: dc.js is a JavaScript charting library with native crossfilter support and allowing highly efficient exploration on large multi-dimensional dataset