**SBU DASHBOARD DOCUMENTATION**

**Overview**

* To design a SBU dashboard screen by fetching the data from different tables and displaying it for the user to know about the status of every projects in a program or segment.
* The dashboard screen consists of data in the form of tables and bar graphs,
* Tables - Critical Open Risks, Program Wise Risk Summary
* Bar Graphs – Overall RAG Status, Risk Category Summary, Best Practices.

**Technologies**

* Angular
* Spring Boot
* MySQL

**Technology Wise Overview**

**Angular**

* To design the frontend screen, Angular framework is used to built a single-page applications using HTML,CSS and Typescript.
* Angular integrates with the backend(Spring Boot) by making a Rest API call to get the data from database.

**Components:**

* Components are basic building block of an UI in an Angular application.
* The components used in designing the dashboard screens were
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**Home Component**

* It consists of html, css, spec and typescript files.

[home.component.ts](http://home.component.ts):

**Table Description**

* The typescript file in the component contain information about the selector, style, template which is used to design that particular component.
* The home component class consists of variables like products(stores the data from the database), dataBar1and dataBar2, displayedColumns1(contains columns name for the first table in the dashboard ), displayedColumns2(contains columns name for the second table in the dashboard ).
* The functionality of the component is added in ngOnInit() function, whenever the page gets loaded it make a Rest Api call with the help of Http client get() method with specific rest url and subscribe, to monitor the data from database and also manipulate accordingly in UI.
* Method Name – sendGetRequest().
* Until the data from backend is fetched, the page displays loading symbol(If the data is not yet initialized or product length is zero) by using mat-spinner.
* All the data from data source are iterated one by one under the element and rendered into the specified column name in table format.
* The functionality for displaying the RAG column is done using ngIf directive with some business logic added.

1. If the element.RAG = “Code Red” then bgcolor = “RED”(refer to .negative in html file)

2. If the element.RAG = “Amber Escalate” then bgcolor = “Yellow”( refer to .positive in html file)

**Bar Chart Description**

* The horizontal way of bar chart is designed using appropriate barChartOptions.
* barChartType: ChartType = “horizontal”
* barChartLabels: Label[] = ["Code Red","Amber Escalate","Amber Manage"]
* barChartData – Defines the total count of risks for particular RAG status value under the label: Total # Programs using data count.

[home.component.html](http://home.component.html):

* The file consists of inline css styles and all the table row and header definitions.
* The canvasjs is used to define the bar chart definitions.