Domain Model

1. Axis Property Description

Table 1.1: Data Visualization X-Axis Configurable Property Description

Property	Description	Data type	isRequired	Default Value
showXAxis	Should the axis be shown or hidden	boolean		true
xAxisNameLocation	Location of the name of the axis	start | middle | end		middle
xAxisNameGap	Space between the x axis & name. This is required else the name of the x-axis will overlap with the xAxis line	number		30
xAxisNameColor	Color of the name which defines the x-axis	string		
xAxisPosition	Position of the x-axis, either on the top of the chart or at the bottom of the chart	top | bottom		bottom
xAxisFontStyle	Font style of the x axis	normal | italic | oblique		normal
xAxisFontWeight	CSS font-weight of the a-axis	'normal' | 'bold' | 'bolder' | 'lighter' | number		normal
xAxisFontSize	The font size of the x-axis	number		18
xAxisLineColor	Color of the x-axis line	string		
xAxisNameRotate	Rotate the name of the x-axis	number. Value from -90 to +90		

Table 1.2: Data Visualization Y-Axis Configurable Property Description

Property	Description	Data type	isRequired	Default Value
showYAxis	Should the axis should be shown or hidden	boolean		true
yAxisNameLocation	Location of the name of the axis	start | middle | end		middle
yAxisNameGap	Space between the y-axis & name. This is required else the name of the axis will be overlapped with the y-axis line	number		30
yAxisNameColor	Color of the name that defines the y-axis	string		
yAxisPosition	Position of the y-axis, either on the top of the chart or at the bottom of the chart	left | right		bottom
yAxisFontStyle	Font style of the y axis	normal | italic | oblique		normal
yAxisFontWeight	CSS font-weight of the y-axis	'normal' | 'bold' | 'bolder' | 'lighter' | number		normal
yAxisFontSize	The font size of the x-axis	number		18
yAxisLineColor	Color of the y-axis line	string		
yAxisNameRotate	Rotate the name of the y-axis	number. Value from -90 to +90		

2. Data Visualization Configurable Property Description

Table 2.1 Chartwise property description

	Configurable Properties	Description	Data type	
	Configurable Properties	Description	Data type	
1	title	The description	string	

	Configurable Properties	Description	Data type
		of the chart to be shown in the top	
2	subTitle	The description to be shown below the main title	string
3	legendPosition	The position of the legend in the chart container	`'top'	'bottom'	'left'	'right'`
4	legendOrientation	the layout orientation of the legend	'vertical'	'horizontal'
5	axis	The axis property of the visualization. Please review **Axis Property Description**	boolean
6	showLegend	If chart legend is to be shown or hidden	boolean
7	doughnut	Set a round hole in the center of pie chart The radius of the inner and outer circle is fixed at 40% and	boolean

	Configurable Properties	Description	Data type
		70% respectively	
8	graphics **(private)**	Set graphic elements on the charts with events Note: This is currently a private property and will not be exposed to user during authoring	Graphic[] **Series interface**

```
1  interface Graphic {
2  // type of graphic element
3  type: string;
4  removeGraphic: boolean;
5  // absolute position of element in pixels
6  position?: Position;
7  // text configuration for graphic
8  text?: string;
9  // events to attach on the graphic element
10 events?: {
11     onclick?: EventFunction
12 };
13 }
14
15
16 interface EventFunction {
17 // click event function
18 ($event: Event): void;
19 }
20
21
22
23 interface Position {
24 // absolute top
25 top?: number;
26 // absolute right
27 right?: number;
28 // absolute bottom
29 bottom?: number;
30 // absolute left
31 left?: number;
32 }
```

	Configurable Properties	Description	Data type
9	data [WIP subject to change]	The data required for the visualization	Series || Series[]

	Configurable Properties	Description	Data type
	Configurable Properties	Description	Data type

Series interface

```
1  interface DataPoints {
2  // value on the xAxis
3  xPoint?: number | string | Date;
4  // value on the yAxis
5  yPoint?: number;
6  // a specific name for the data point
7  name?: string;
8  // specific color for the datapoint
9  color?: string;
10 }
11
12
13
14 interface Series {
15 // name of the segment
16 seriesName: string;
17 /**collection of data points used
18 to plot the visualization **/
19 dataPoints: DataPoints[];
20 // stack name to show the data as a part of
21 stack?: string;
22 }
```

| 10 | tooltip | The tooltip of the chart to be shown for each data point. | FicoTooltipConfig
type FicoTooltipConfig {

show: boolean;

showSeriesName?: boolean;

showDataName?: boolean;

dataValueFormat?: DataPointValueFormat;

}

type DataPointValueFormat = 'default' \| 'percent' \| 'decimal';

show: Determines whether to show or hide the tooltip.

showSeriesName: Specifies whether the name of the data serie should be included in the tooltip.

showDataName: Specifies whether the name of the data point should be included in the tooltip. |

Configurable Properties	Description	Data type	
Configurable Properties	Description	Data type	
		dataValueFormat: Defines the format for displaying data valu the tooltip.	

Scrum Team Process - July 2024

Design and Development:

Languages and versions used: Angular 18, Java 17

Versions : Angular version 18 and Java version 17

Core platforms/libraries used: Angular 18, Nx, eCharts, Springboot, gRPC, Node.js, Maven, Docker

List of services or features implemented or in progress: Data Visualization, View Service (Design in-progress)

What other capabilities is this team dependent on: Observability

What is the code review process?
    - Team is CODEOWNER for Reporting domain in IRIS shared repo.
    - Anyone in the team can review and approve a PR.

Number of approvals? 2 approvals (atleast one from IRIS)

Any other details about the merge process -- what happens in order to bless code being merged?
    - Code Review Approvals
    - Github actions workflow should pass all the checks (Security, CI, SonarQube, Jira validation, Image creation)

Does the team rely on long running feature branches?
    - Mostly, we have short-lived feature branches that are deleted once changes are merged to main
    - Sometimes we do have long running experimental branches for POCs

Is the team doing trunk based development? Yes

Are feature flags/toggles used? No

Workstream:

How do you plan work? e.g. How do requirements get defined for functional? For technical?:
    - Functional requirements are driven by PM(ASM) with the help of customer requirements, feedback.
    - Technical requirements are driven by Architecture and Engineering team.
    - Backlog Refinement happens every week.

How granular is work broken down or decomposed? e.g. Do a majority of cards get done in 3 days or less, or 5 days or more?
    - Most of the stories have been Spikes so far and hence have been 5 days or more.
    - We have recently started to break down development work into smaller feature stories to improve development pace and reduce merge overhead.

How is estimation done? e.g. Is there t-shirt sizing done against epics? How are individual cards estimated?
    - Estimation is done via story points assignment based on Fibonacci series.
    - Team members can voice their opinions/concerns about estimation during Planning/Refinement.
    - T-shirt sizing estimate is done against epics

How are the team's scrum ceremonies set up? e.g. Any of: planning, standups, refinement, review, demo, retro
    - All scrum ceremonies are setup.
    - Sprint runs for 2 weeks and starts on Monday.
    - Backlog refinement happens every Tuesday.
    - Sprint Review and Demo happens on second Thursday of the sprint.
    - Sprint Planning is done after Sprint Review on second Thursday of the sprint.
    - Retrospective happens after every other sprint.
    - India team has daily-standup every morning.
    - Global standup happens every Monday and Wednesday India evening/US morning.

Who runs standups, what is the nature of discussion?
    - India standup is run by Engineering team.
    - Global standup is run by Scrum Coach.
    - Team goes through the scrum board and identifies progress, blockers and dependencies.
    - Parking lot discussions, if needed, happens after standup and sometimes leads to dev discussions between engineers if additional discussions are required on any issue.

Quality:

Which test tools do you rely upon? Jest, JUnit, Cypress (planned)

What testing is pipeline integrated?
    - Unit tests run when a PR is created or updated as part of CI workflow

What is your unit test code coverage %? 39%

How many functional tests do you have?

Integration tests? No

Do you have negative tests? No

Who is responsible for writing and maintaining each of those?
   - Unit tests: Developers
   - Function tests: Developers + QA

Any unimplemented tests?
   - Currently there are large no. of cases missing from unit testing
   - Integration testing
   - Performance testing

Other tests or automation for production validation? No

Are any type of load or performance tests done? No

Defect rate? (defects escaping Def of Done in last 3 months)? No testing done so far

Do you have a defect dashboard? No

How do you avoid backwards incompatibility or future retirement/deprecations? N/A, since we haven't had a release yet

Release and CICD:

How frequently is code deployed higher than DEV? to PROD? (aka the deployment cadence)
   - No deployments done so far

Is there a release process? No

What are the gates for promoting to each higher environment? No

How, how often, and when do security and legal approvals occur?
   - Haven't reached the stage yet.

Does the team track release notes with Tech Pubs?
   - N/A

Who is responsible for pipeline workflows?
   - DevOps members

Who is responsible for project, infra, or other devops configurations like Helm, Terraform, etc?
   - N/A

What plug-ins or additional tools are used, like linters, sonarqube, etc?
   - SonarQube is integrated in CI workflow
   - IRIS-shared-repo has es-lint/prettier
   - Visual Studio Code/WebStorm/IntelliJ for IDE and to support code formatting.

Data Visualization Knowledge Transfer

As part of the knowledge transfer, I have included the following items and confirmed them with the team regarding their internal work. Please feel free to add any data visualization topics you would like to know more about.

Topics	Comments
• Echart Adapter	
• Option Builder	
• Unit Test Case	
• Domain Model Design	