

# Online bakery application

You are the owner of **Star Bakery** which has an online delivery service that serves from 1000 branches across India. Bakery has also hired an analyst to check the health of your business and provide use full information about health of its business

For this application assume just one simple order entity as following

## Order Entity

Order entity has following properties :

- Item type : Cake, Cookies, Muffins
- Order State : Created, Shipped, Delivered, Canceled
- Last update time
- Branch : Branch location which this order belongs to. This could be simple id from 1 to 1000
- Customer : id of customer who placed the order

Here are price of each item in the bakery

- Cake : Rs 500
- Cookies : Rs 50
- Muffins : Rs 100

An analyst can check the health of the business through a dashboard which consist of following widgets

- Time selector widget to select which time range he wanted to view the data
- Time Series charts of order data
  - Zoom in/out feature on time series
  - Rollups of orders by granularity of hour, day, week, month
  - Show two charts
    - number of order
    - Total value of orders in Rupees
  - Ability to select one or both the charts
- A bar chart widget showing orders divided each type (Cake, Muffin, Cookies)
- A bar chart widget showing order by state (Created, Shipped, Delivered, Canceled)
- A chart showing top 5 branches
- Allowing user to filter the output of order data time series chart by selecting type, state or region from other charts
- Optional : Widget for comparing data between any two hours/days/weeks on metrics like number and total value of orders
- Optional : Make dashboard customizable to drag and drop new widgets or change position of existing widgets

## Craft Demo

For this demo you should

- Create and demo interactive dashboard for Analyst
- Create a RESTFull backend for fetching the data for Analyst Dashboard using any framework of your choice like Node.JS(Express), SpringBoot, Flask etc.
  - You can use the Database of your choice.
  - The service should expose these REST endpoints like
    - GET /api/order/{orderid} - returns the info of a given order
    - POST /api/order/ - Create and return order id of created order.
- Assume you have 100k orders spread in a given month with total value of over millions of rupees
- Focus on showcasing your skills in areas like code quality, readability, unit testing, Dockerization, etc.
- You can use any UI framework of your choice. Although, React is preferred. State management libraries like Redux, Redux Saga usage are recommended too.
- Optional : Dockerize your backend and frontend apps