infogain
Engineering Business Outcomes

22-Apr-2021

BEAN BAG SESSION

Micro - Frontend Architecture

Presenter:
Nagendra Dwarakinath
Senior Architect

WHAT WE SUGGEST ?

Every Code That We Develop as a Team is Facile

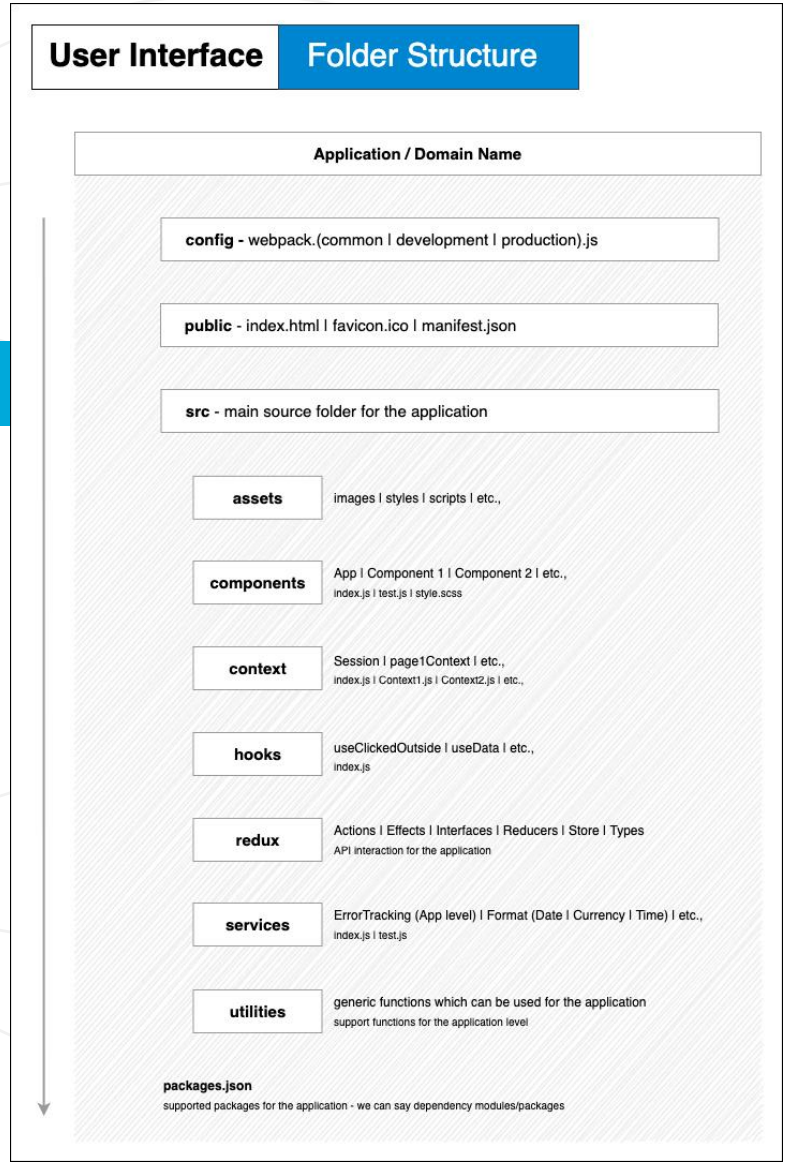
OBJECTIVES

Existing Design of UI Architecture behavior for Large Scale Application (LSA)

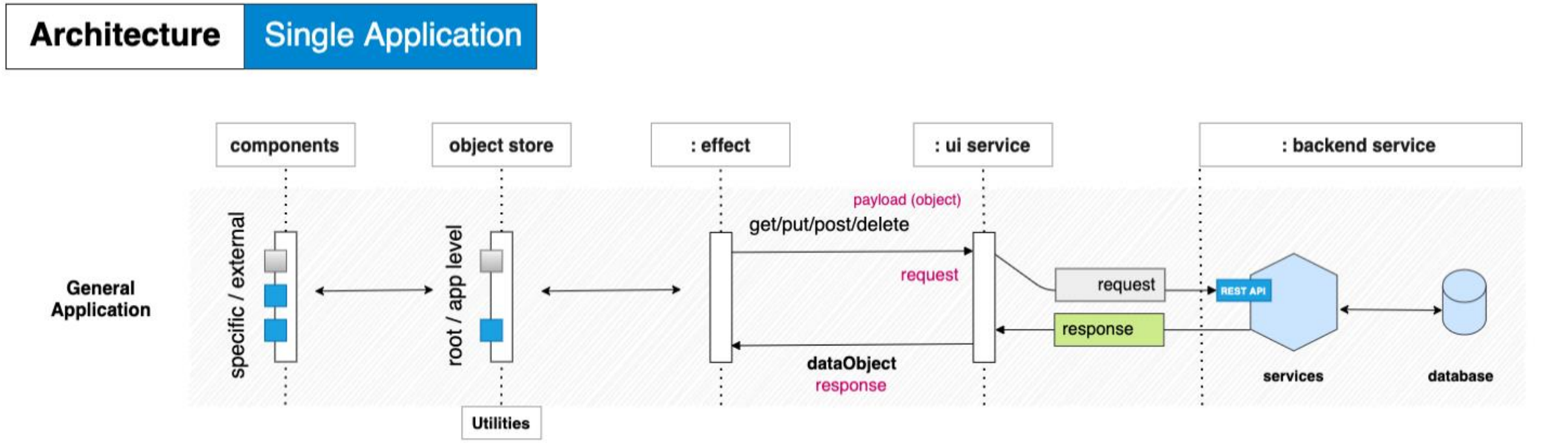
BEHAVIOR

01

Many Organization have huge teams who get involved in designing high-end design applications. Executing the design systems, flexibility and efficiency in the coded behaviour is becoming little risker in the market standards. This is mainly due to the usage of MONOLITHIC approach which has been followed in the architectural standards of User Interface.



Existing Design of UI Architecture behavior for Large Scale Application (LSA)



Introduction to Micro-FrontEnd (MFE) Architecture

INTRODUCTION

02

Micro-FrontEnd (MFE) architecture is a design approach on its own, in which the applications of front-end are decomposed into an independent application where we can call them Smaller Unit or Micros. And these applications are loosely working together. The name or the concept is inspired by micro-services.

A best-fitting example would be the RUBIK's CUBE where we can treat every block of color as an independent application and have enclosed inside one single unit which we can say as the shell.

Advantages of Micro-FrontEnd (MFE) Architecture

ADVANTAGES

03

PRIMARY FOCUS

This architecture is mainly focused on the base skeleton elements which form the shell-based container mechanism and the relationships like how the segment / fragment / unit / component / module(s) (UI) are assembled and communicated to achieve the optimal developer and user experience.

MANAGIBILITY

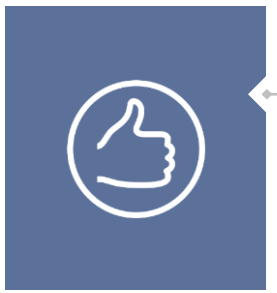
Micro-frontend architectures by name are simpler and thus it's very easy to manage them

COLLABORATE

Independent teams can invest in the work and collaborate the applications more easily

APPROACH

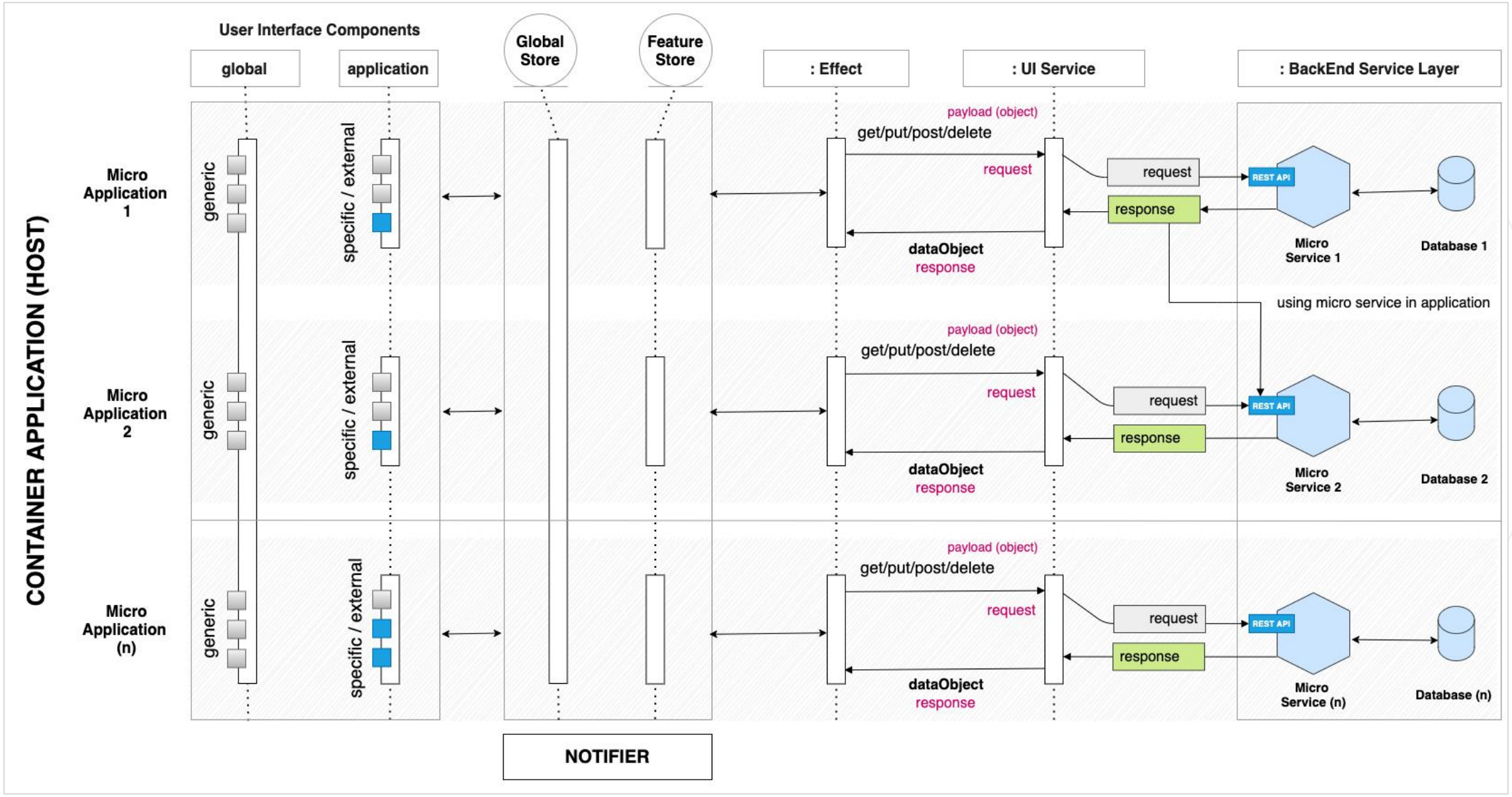
Migrating the old application to a new application by stepwise approach is found easier



TEST & QUALITY

Testing the applications independently, Code Quality checks & Deployment of the applications are quicker

Advantages of Micro-FrontEnd (MFE) Architecture



Superpower's of Micro-FrontEnd (MFE) Architecture

SUPERPOWER’s

04

SINGLE UNIT | LAZY LOADING (QUICK LOAD) | STORE MANAGEMENT

Micro-FrontEnd (MFE) is not claimed as the best architecture for all use cases. Only in some cases where we develop as independent applications by the teams and later tie them up, to adopt micro frontends. The main superpower generally goes with the shell bases approach with routing strategies where the independent applications are connected as one single unit.

Communication sometimes plays a major role with respect to the design pattern same independent application or cross applications and that is where we need to pick the data strategy of store mechanism.

Spanning the data across the application is generally performed or treated as a Global (root) store and independent application data transfer is named as a feature (application) store.

Demo of a Sample application using Micro-FrontEnd Architecture

DEMO INFO

05

What does this demo contain ?

THREE
INDEPENDENT REACT JS APPLICATIONS

ONE
INDEPENDENT VUE JS
APPLICATION

APPLICATION ONE
Shell Application - Container

APPLICATION TWO
Module One with 2 pages

APPLICATION THREE
Authentication – Sign Up & Sign In

APPLICATION FOUR
Dashboard which contains widgets

Demo of a Sample application using Micro-FrontEnd Architecture – Continued…

DEMO INFO

05

What you see is what you get

DEMO ON
MICRO-FRONTENDs

Question and Answers

DEMO INFO

06

Best questions with quality answers

IT’S YOUR
TIME AND OUR ANSWERS

MICRO-FRONTEND’s THANK YOU

DEMO INFO

TY

Our support for your best needs

MFE 1 **ANGULAR** **VUE JS**

THANK YOU

REACT JS **ANY FRONTEND** **MFE 2**

infogain
Engineering Business Outcomes

Contact :

Nagendra Dwarakinath

Senior Architect

Nagendra.Dwarakinath@infogain.com

Infogain Corporation, HQ
485 Alberto Way
Suite 100
Los Gatos, CA 95032

Irvine
41 Corporate Park
Suite 390
Irvine, CA 92606

Austin
3700 W Parmer Ln
Suite 210
Austin, TX 78727

Houston
2700 Post Oak Blvd
Suite 1625
Houston, TX 77056

Dallas
5550 Granite Parkway
Suite 100
Plano, TX 75024

Seattle
2226 3rd Avenue
Suite 300
Seattle, WA 98121

London
Millbank Tower
Citibase 21-24
London SW1P 4DP

Noida
A-16 & 21, Sector 60
Gautam Budh Nagar
Noida – 201 301, India

Mumbai
Unit 74, 2nd Floor, SDF 3
SEEPZ, Andheri East
Mumbai – 400 096, India

Pune
Pune IT Park, 34 Aundh Road
Bhau Patil Marg
Pune - 411 020, India

Bengaluru
#7, 18th Main Road, 7th Block
Koramangala
Bengaluru - 560 095, India

Singapore
144 Robinson Road, #13-01
Robinson Square
Singapore 068908

Dubai
Office 255, Building 17
Dubai Internet City
Dubai, UAE

Krakow
REGUS Krakow Equal Business Park B
ul. Wielicka 28B
30-552 Kraków, Poland