

**WebApp
Conf**

REMOTE CONTROL FOR WEB APPLICATION

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ABOUT ME



GUIDO NEBIOLO

CONSULTANT & STARTUPPER

STORM REPLY

- AWS Certified Solution Architect Professional
- AWS Certified Developer Associate
- Certified Professional Scrum Master

EPICURA

- Chief Technical Officer
- Serverless Backend Developer on AWS

DELIVERISTO

- JS Frontend Developer

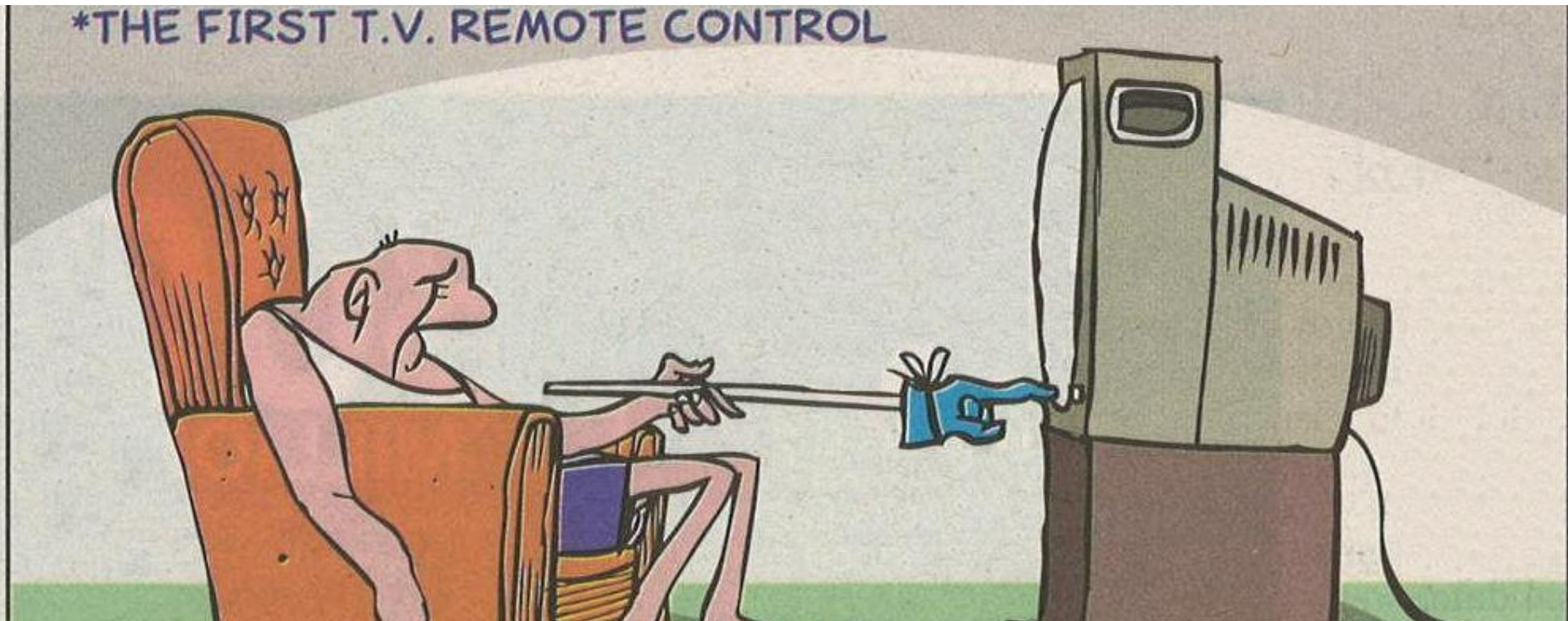


REMOTE CONTROL



REMOTE CONTROL

FIRST VERSION



The first remote intended to control a television was developed by Zenith Radio Corporation in 1950. The remote, called "Lazy Bones", was connected to the television by a wire.

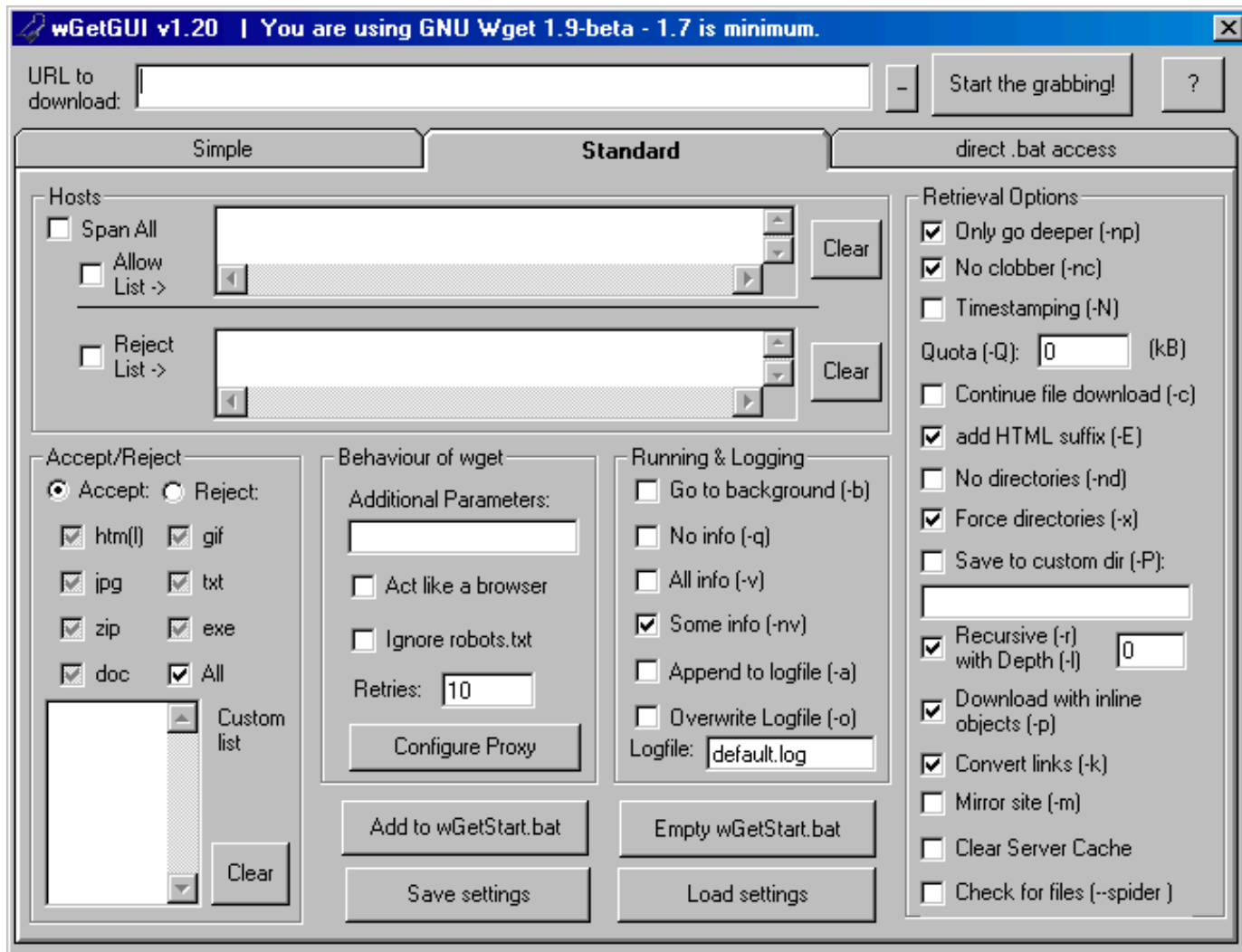
REMOTE CONTROL

MORE FEATURES

NEW VERSION OF A
PRODUCT BRINGS **NEW**
FEATURES

NEW FEATURES BRING
COMPLEXITY IN THE
INTERACTION BETWEEN
HUMANS AND MACHINES





REMOTE CONTROL

INTERACTION

...«I believe that voice interfaces hold their greatest promise as an additional component to a multi-modal dialogue, rather than as the only interface channel»...

Jakob Nielsen

**JANUARY
27, 2003**

<https://www.nngroup.com/articles/voice-interfaces-assessing-the-potential/>



VUI VOICE USER INTERFACE



VOICE USER INTERFACE

BRIEF HISTORY

YEAR

1961 IBM Shoebox recognizes 16 spoken words and the digits 0 through 9

2011 Apple introduces **Siri**

2012 Google launches **Google Now**

2013 Microsoft releases **Cortana**

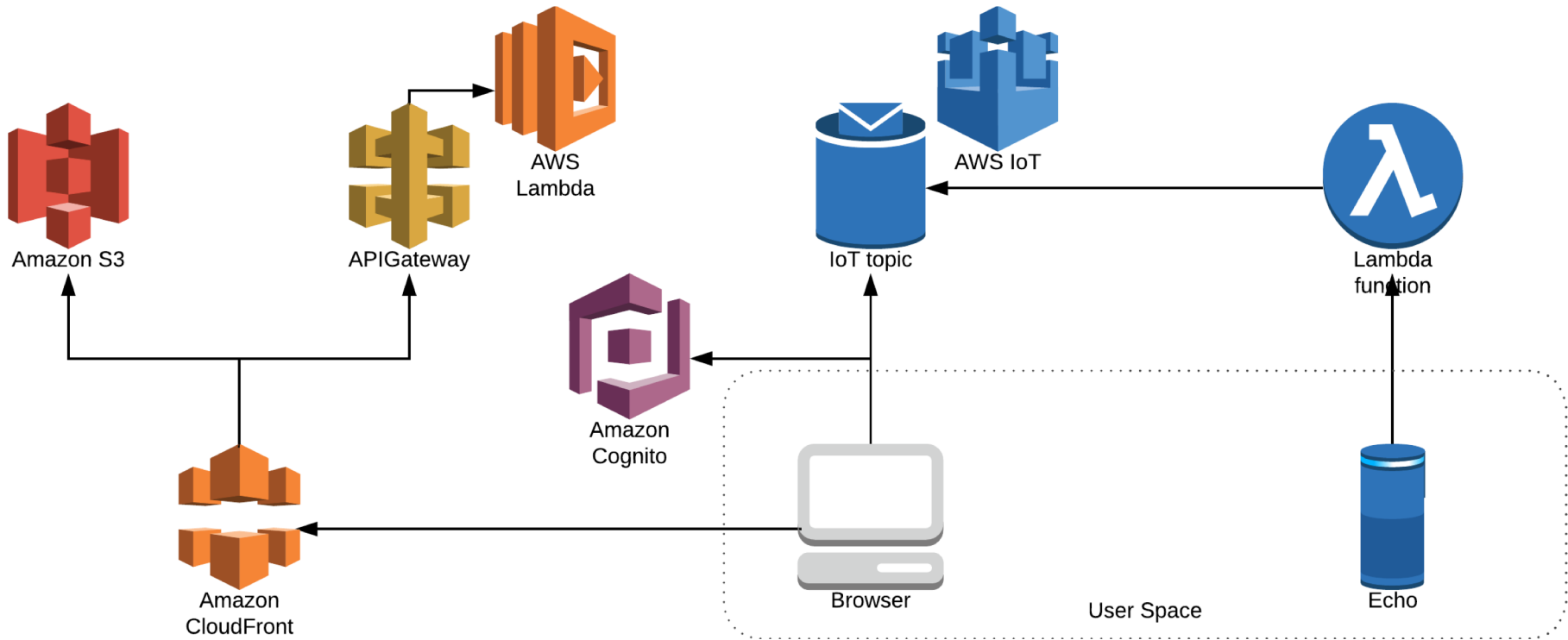
2014 Amazon comes out with **Alexa**



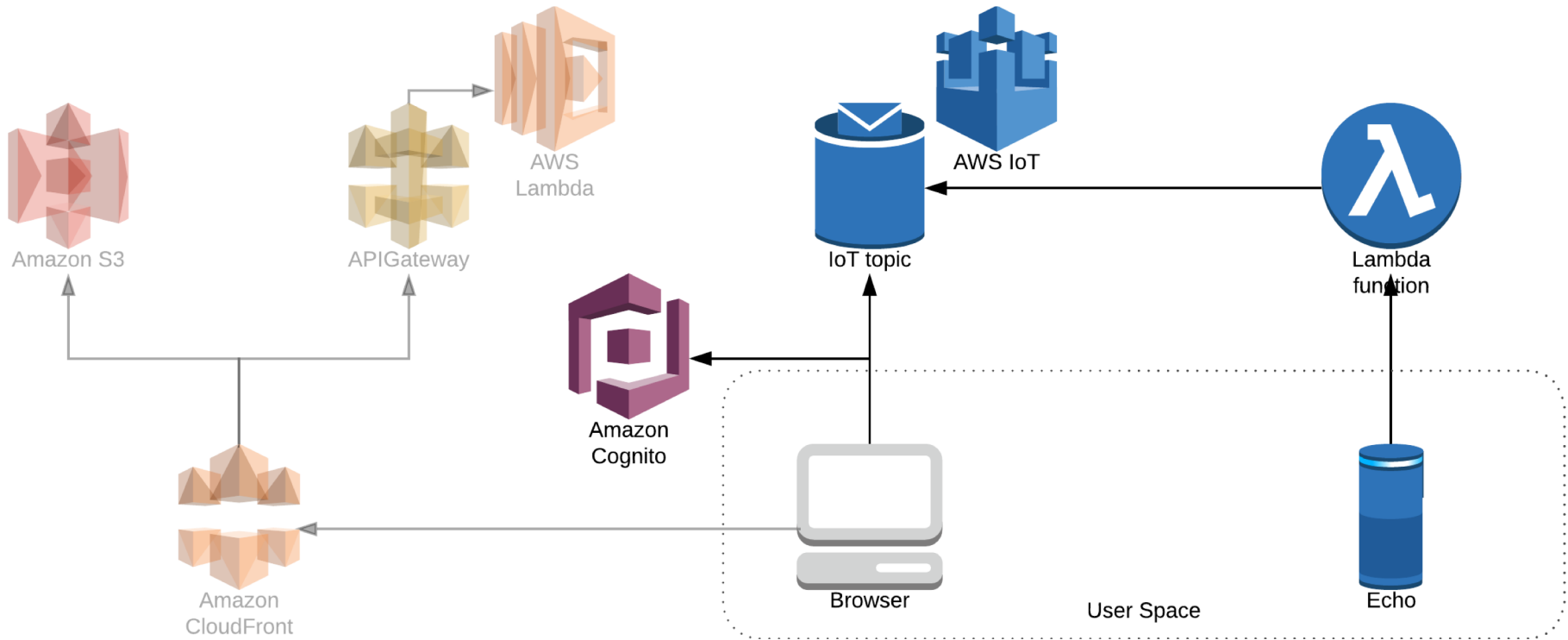
SOLUTION ARCHITECTURE



SOLUTION ARCHITECTURE



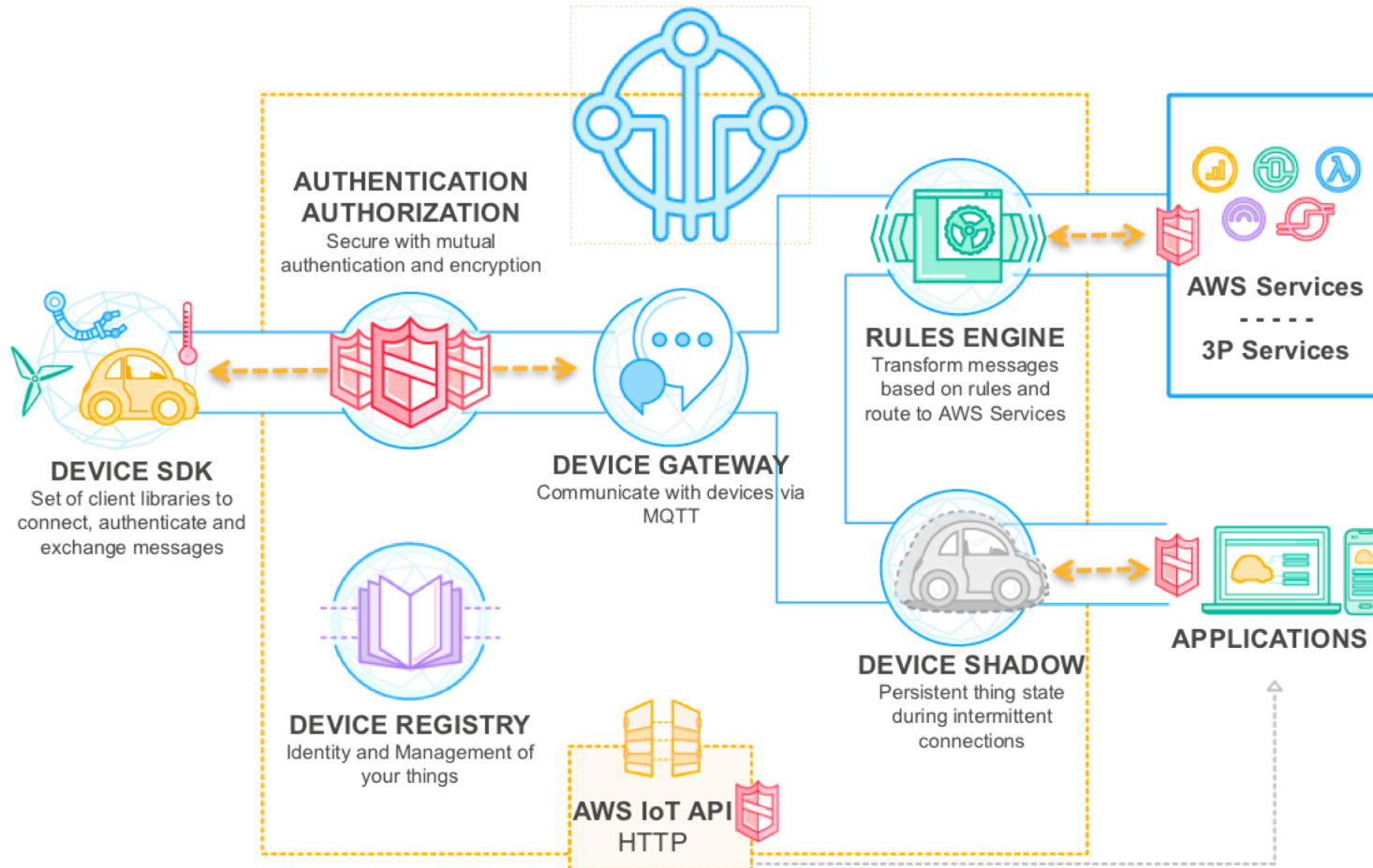
SOLUTION ARCHITECTURE



AWS IOT



AWS IOT



VUE JS FRONTEND



VUEJS – CLIENT MQTT

```
import { device } from 'aws-iot-device-sdk';

const mqttClient = device(credentials) /* region, accessKeyId, secretKey, sessionToken, ... */

mqttClient.on('connect', () => {
  mqttClient.subscribe(mqttTopic) /* Connect to mqtt topic */
})

mqttClient.on('message', (topic, payload) => {
  /* Handle message */
})

mqttClient.on('close', () => {
  /* Handle reconnection or app shutdown */
})
```

<https://github.com/aws/aws-iot-device-sdk-js>



VUEJS – EVENT BUS

```
import Vue from 'vue'

export const EventBus = new Vue();

mqttClient.on('message', (topic, payload) => {
  const message = JSON.parse(payload.toString())
  EventBus.$emit('RemoteControl', message)
})
```

<https://vuejs.org/v2/api/#Instance-Methods-Events>



VUEJS – RECEIVING COMMANDS

```
<template>

</template>

<script>
import { EventBus } from "@main.js";

export default {
  created() {
    EventBus.$on('RemoteControl', command => {
      /* Handle command received */
    })
  }
}
</script>
```

<https://vuejs.org/v2/api/#Instance-Methods-Events>

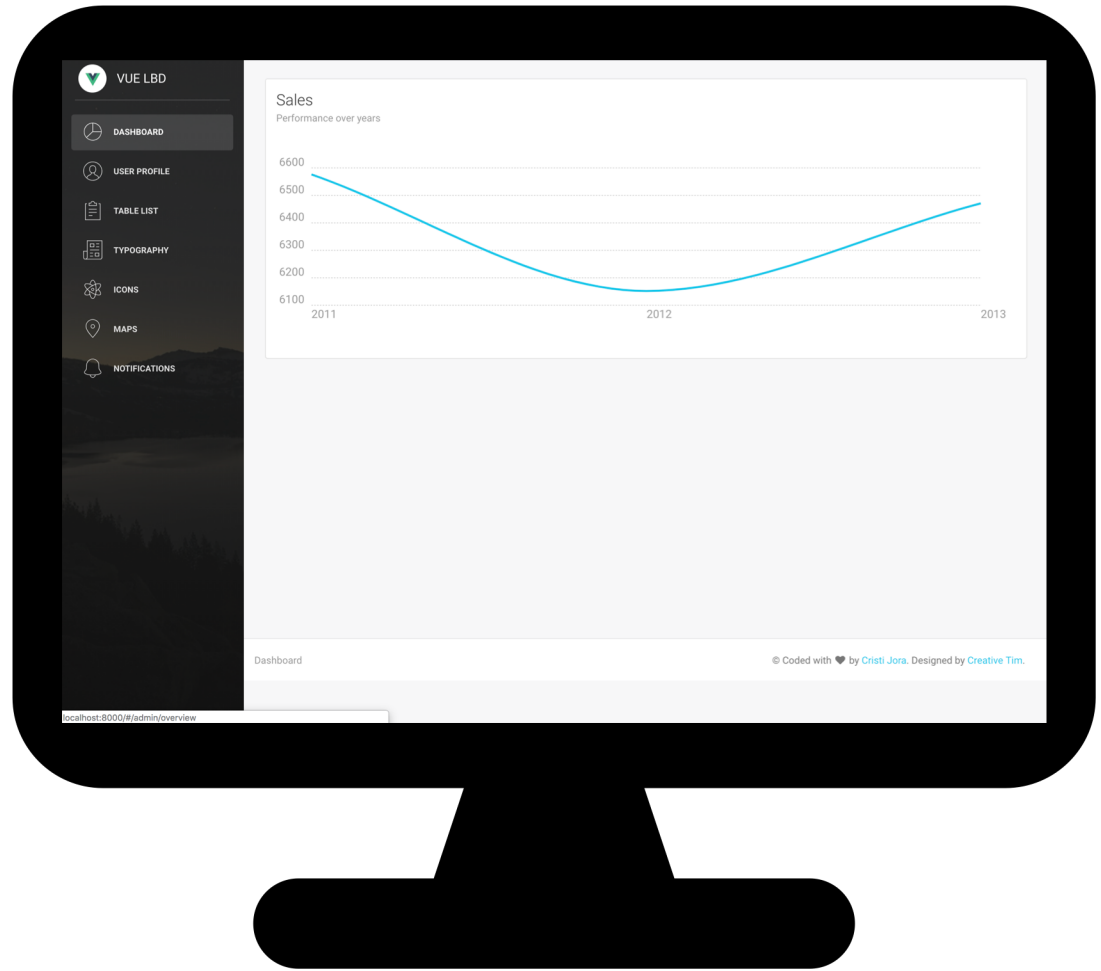


END TO END



E2E – NAVIGATION

Alexa, ask Dashboard to show sales history



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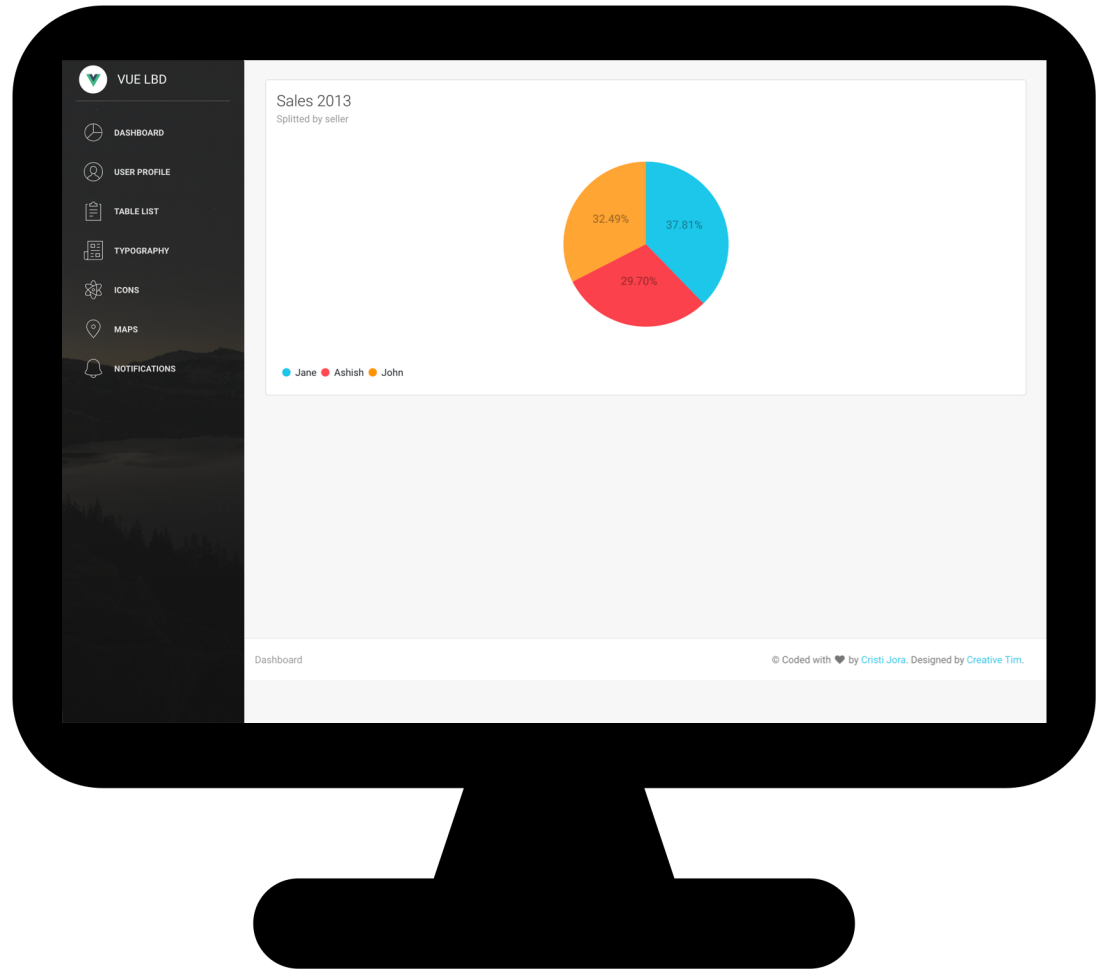


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E2E – NAVIGATION

Alexa, ask Dashboard to show sales detail for year 2013



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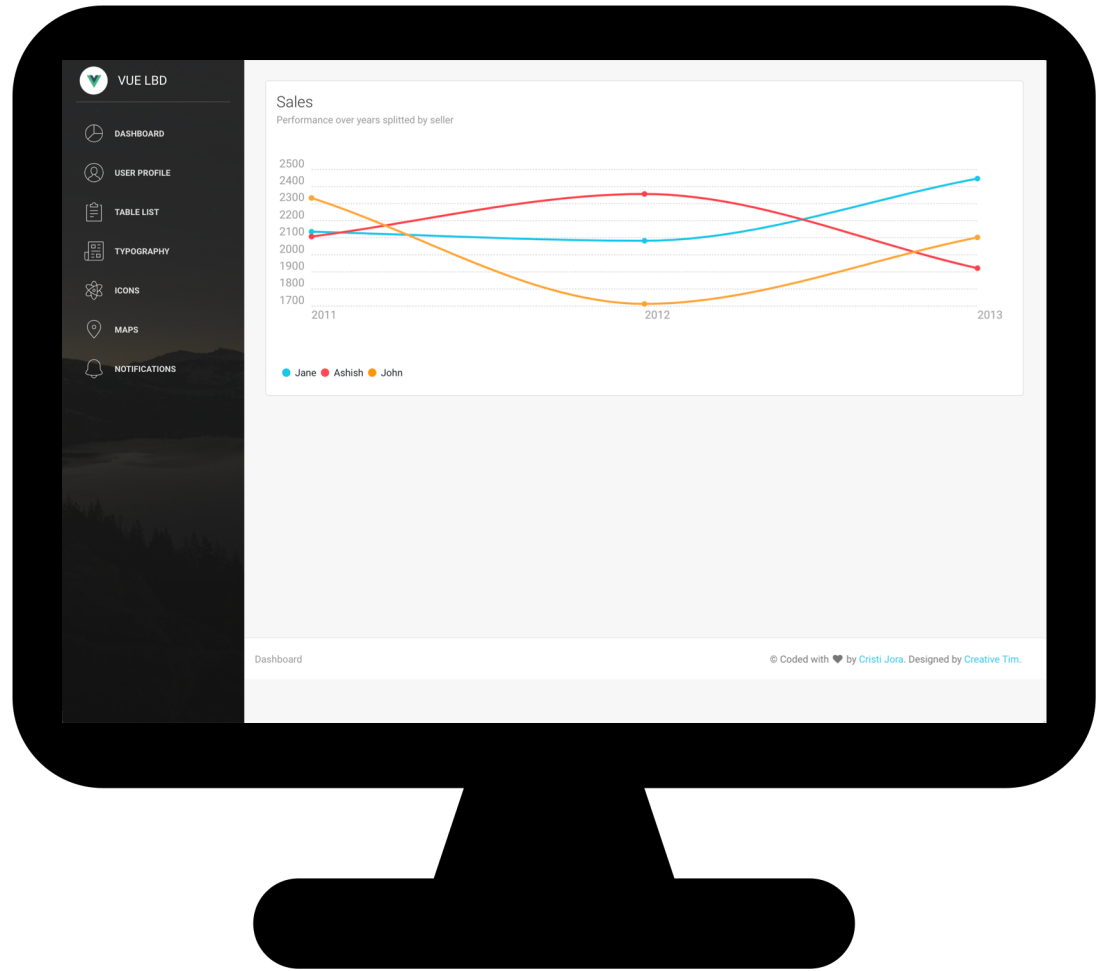


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E2E – NAVIGATION

Alexa, ask Dashboard to show sales history splitted by seller



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Q&A

