

Of course, you can do that with APEX! Report Templates; the definitive guide

Jorge Rimblas





Jorge Rimblas 4 CRACLE

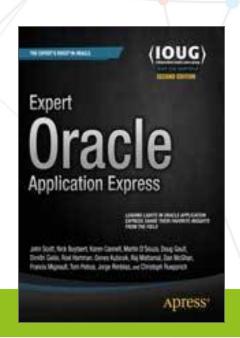
Senior APEX Consultant

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- Contributor to "Expert Oracle Application Express, 2nd Edition" with "Themes & Templates" chapter
- Oracle DB since 1995
- APEX since it was HTMLDB in 2004
- Always involved in web technologies
- irimblas in OTN Forums







insum

Custom
Development,
Cloud, Forms
Modernization,
EBS Extensions

Consulting,
Coaching, and
Team
Augmentation

Maintenance and Enhancement Service for apps built with APEX

Committed to
APEX Innovation &
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Internationally recognized staff that includes
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500

Technology Fast 500 2017 CANADA WINNER Deloitte.



Be comfortable enhancing report layouts

Agenda

- Patterns
- Classic Reports
- Classic Reports: Custom Named Templates
- Interactive Reports
- Interactive Grids
- Single Line Alert & Messages

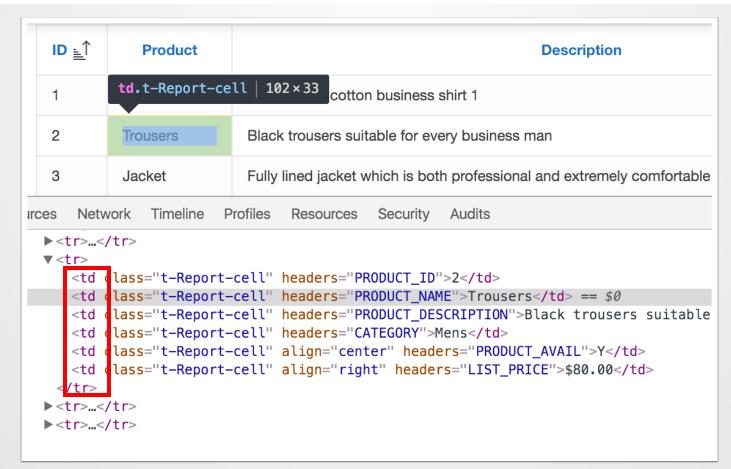
Patterns For Presenting

Data

Tables

Table tags: table, tr, td

```
        #COLUMN_VALUE#
```



Lists

List tags: ul, li

List Structure

```
<u1>
                 Orange Juice <i class="fa fa-check-square-o"></i>
                Milk <i class="fa fa-check-square-o"></i>
                 Eggs <i class="fa fa-square-o"></i>
                 Bread <i class="fa fa-square-o"></i>
                 Cornflakes <i class="fa fa-square-o"></i>
               <u1>
                                                    Before Rows
For Each Row -> #column_value#
               After Rows
```



Classic Reports

ASICS					
Running					
one of ASICS' mo		Gel Nimbus After 18 years of innovation, the Nimbus® series continues as one of ASICS' most recognized high performing footwear. Get the substitute →	\$150.00	-	ADD TO CART
New Arrivall 9001	e _{III}	Fuzex ASICS newest GEL cushioning technology made from the fusion of GEL property and foam creates lightweight adaptable comfort -	\$110.96	<u> </u>	ADD TO CART
Training					
9075		Gel-Fortius 2 TR Strategically positioned in critical areas of the outsole, this exceptionally durable compound is 50% more durable than	\$95.00		ADD TO CART
		standard ASICS High Abrasion Rubber			
	NCE				
	NCE		\$69.99	a	ADD TO CAR
NEW BALAI Lifestyle LF574 New Arrivali MVL530		standard ASICS High Abrasion Rubber 574 Sweatshirt	\$69.99		ADD TO CART
Lifestyle LF574 New Arrivall		574 Sweatshirt Inspired by your favorite hoodie - 530 Vazee Fresh for 2016, our 530 Vazee for men combines a classic upper with a sleek performance base, creating a modern look			

Classic Reports

Generic Columns Column Template

Named Columns Row Template

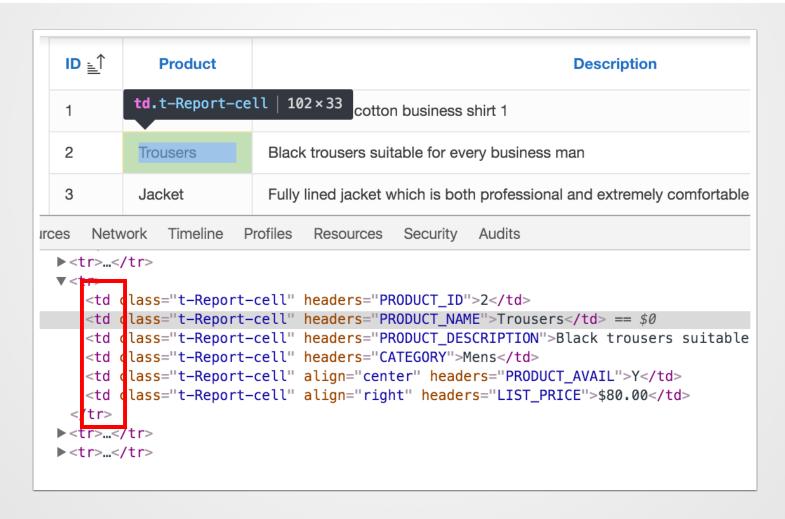
Generic Columns

Every column looks the same

```
#COLUMN_VALUE#
```

Every column looks the same

```
    #COLUMN_VALUE#
```



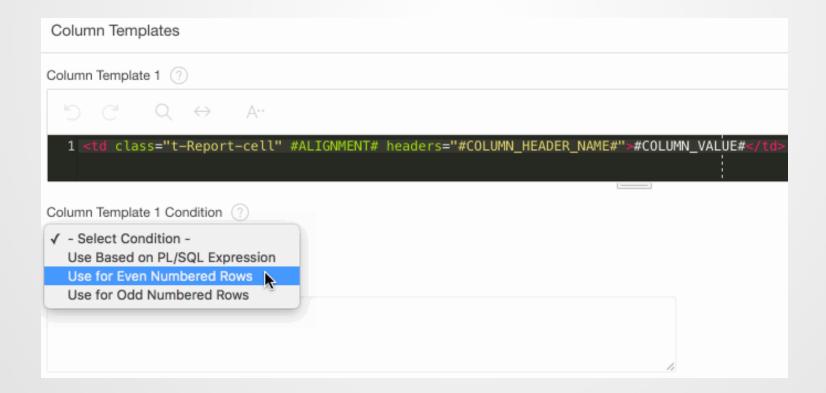
Using conditions

ID <u>≟</u> ↑	Product	Description	Category	Avail?	Price
1	Business Shirt	Wrinkle-free cotton business shirt 1	Mens	Υ	\$50.0
2	Trousers	Black trousers suitable for every business man	Mens	Υ	\$80.0
3	Jacket	Fully lined jacket which is both professional and extremely comfortable to wear	Mens	Υ	\$150.0
4	Blouse	Silk blouse ideal for all business women	Womens	Υ	\$60.0
5	Skirt	Wrinkle free skirt	Womens	N	\$80.0
6	Ladies Shoes	Low heel and cushioned interior for comfort and style in simple yet elegant shoes	Womens	Υ	\$120.0
7	Belt	Leather belt 1	Accessories	Υ	\$30.0
8	Bag	Unisex bag suitable for carrying laptops with room for many additional items	Accessories	Υ	\$125.0
9	Mens Shoes	Leather upper and lower lace up shoes	Mens	N	\$110.0
10	Wallet	Travel wallet suitable for men and women. Several compartments for credit cards, passports and cash	Accessories	Υ	\$50.0

1 - 10

Column Templates

- Four Column Templates
- Condition for each template
- Condition types: even or odd rows, PL/SQL Expression



ID <u>≞</u> ↑	Product	Description	Category	Avail?	Price
1	Business Shirt	Wrinkle-free cotton business shirt 1	Mens	Υ	\$50.0
2	Trousers	Black trousers suitable for every business man	Mens	Υ	\$80.0
3	Jacket	Fully lined jacket which is both professional and extremely comfortable to wear	Mens	Υ	\$150.0
4	Blouse	Silk blouse ideal for all business women	Womens	Υ	\$60.0
5	Skirt	Wrinkle free skirt	Womens	N	\$80.0
6	Ladies Shoes	Low heel and cushioned interior for comfort and style in simple yet elegant shoes	Womens	Υ	\$120.0
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10	Wallet	Travel wallet suitable for men and women. Several compartments for credit cards, passports and cash	Accessories	Υ	\$50.0

Step by step details

rimblas.com/blog/2014/05/using-conditions-with-column-templates/

Named Columns

SQL

```
select PRODUCT_ID
    , PRODUCT_NAME
    , PRODUCT_DESCRIPTION
    , CATEGORY
    , PRODUCT_AVAIL
    , LIST_PRICE
    from PRODUCTS
```

Named Columns

```
#PRODUCT_ID#
#PRODUCT_NAME#
#PRODUCT_DESCRIPTION#
#CATEGORY#
#PRODUCT_AVAIL#
#LIST_PRICE#
```

Generic Columns

#COLUMN VALUE#

Positional Columns SQL Named Columns

```
select PRODUCT_ID
    , PRODUCT_NAME
    , PRODUCT_DESCRIPTION
    , CATEGORY
    , PRODUCT_AVAIL
    , LIST_PRICE
    from PRODUCTS
```

```
#1#
#2#
#3#
#4#
#5#
#6#
```

Simple List

```
#TODO# <i class="fa fa-#CHECKED#square-o"></i>
select id
                                                 To Do v1
     , todo
     , decode(completed by
             , null, ''

    Orange Juice 

             , 'check' || '-') checked

    Milk 

     , completed by
                                                  Eggs
     , completed on

    Bread

from app_todos

    Cornflakes
```

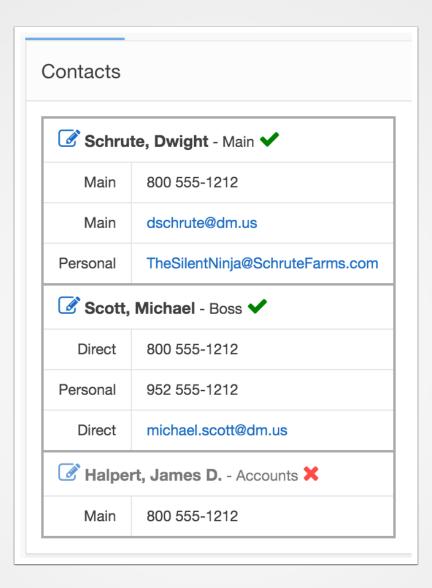


Benefits

- Standard Classic Report Functionality
 - Edit Links
 - Dynamic Actions
 - Dialog Close
 - Refresh

Named Columns

Mixing Layouts



Contact List



Two types of rows

```
select party_id
   , party_name
   , role
   , type_name
   , entry
   , active_ind
   from parties
```

```
<a href="#LINK#">&EDIT_BUTTON.</a>
#PARTY_NAME# - #ROLE# <i class="fa"></i>
```

```
#TYPE_NAME#
```

PARTY_ID	PARTY_NAME	ROLE	TYPE_NAME	ENTRY	ACTIVE_IND
21	Schrute, Dwight	Main	Main	800 555-1212	Υ
21	Schrute, Dwight	Main	Personal	TheSilentNinja@SchruteFarms.com	Υ
21	Schrute, Dwight	Main	Main	dschrute@dm.us	Υ
1	Scott, Michael	Boss	Personal	952 555-1212	Υ
1	Scott, Michael	Boss	Direct	michael.scott@dm.us	Υ
1	Scott, Michael	Boss	Direct	800 555-1212	Υ
41	Halpert, James D.	Accounts	Main	800 555-1212	N
7 rows s	elected.				

Special Case

```
select party_id
   , party_name
   , role
   , type_name
   , entry
   , active_ind
   from parties
where party_id = 41 •
```

```
<a href="#LINK#">&EDIT_BUTTON.</a>
#PARTY_NAME# - #ROLE# <i class="fa"></i>
```

```
#TYPE_NAME#
```

PARTY_ID	PARTY_NAME	ROLE	TYPE_NAME	ENTRY	ACTIVE_IND
41	Halpert, James D.	Accounts	Main	800 555-1212	N

For a single row Or the 1st Party Row

→ Use both types of rows

PARTY_ID	PARTY_NAME	ROLE	TYPE_NAME	ENTRY	ACTIVE_IND
21	Schrute, Dwight	Main	Main	800 555-1212	Υ
21	Schrute, Dwight	Main	Personal	TheSilentNinja@SchruteFarms.com	Υ
21	Schrute, Dwight	Main	Main	dschrute@dm.us	Υ
1	Scott, Michael	Boss	Personal	952 555-1212	Υ
1	Scott, Michael	Boss	Direct	michael.scott@dm.us	Y
1	Scott, Michael	Boss	Direct	800 555-1212	Υ
41	Halpert, James D.	Accounts	Main	800 555-1212	N

Analytic Functions



Analytics

```
select party_id
   , party_name
   , entry
   , row_number() over (
        partition by party_id
        order by party_name, entry) rn
from parties
```

PARTY_ID	PARTY_NAME	ENTRY	RN
1	Scott, Michael	800 555-1212	1
1	Scott, Michael	952 555-1212	2
1	Scott, Michael	michael.scott@dm.us	3
21	Schrute, Dwight	800 555-1212	1
21	Schrute, Dwight	TheSilentNinja@SchruteFarms.com	2
21	Schrute, Dwight	dschrute@dm.us	3
21	Schrute, Dwight	ceo@SchruteFarms.com	4
41	Halpert, James D.	800 555-1212	1
	<u>-</u>		
8 rows s	elected.		

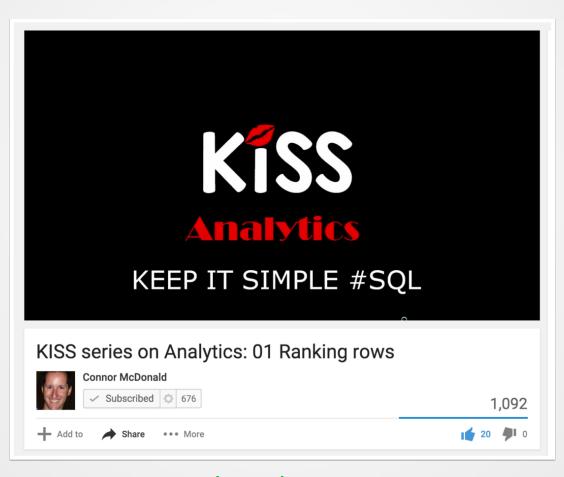
count(*) as analytic

PARTY_ID	PARTY_NAME	RN	TOTAL_ROWS
1	Scott, Michael	1	3
1	Scott, Michael	2	3
1	Scott, Michael	3	3
21	Schrute, Dwight	1	4
21	Schrute, Dwight	2	4
21	Schrute, Dwight	3	4
21	Schrute, Dwight	4	4
41	Halpert, James D.	1	1
		•	

8 rows selected.

KISS series on Analytics

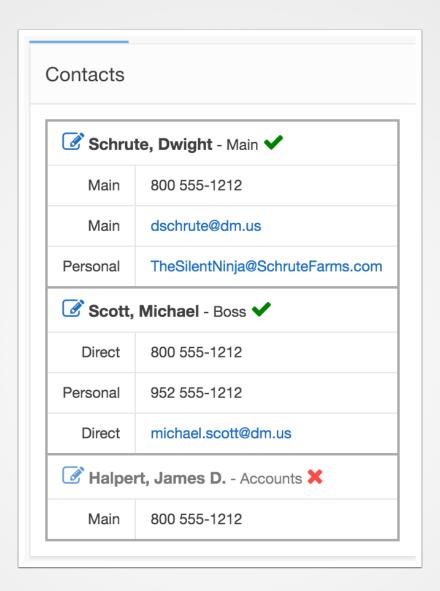
by Connor McDonald



youtu.be/nk4l4ta4ZuU

21 Schrute, Dwight Main Main dschrute@dm.us 1 Scott, Michael Boss Direct 800 555-1212 1 Scott, Michael Boss Personal 952 555-1212 1 Scott, Michael Boss Direct michael.scott@dm.us	RN	ENTRY	TYPE_NAME	ROLE	PARTY_NAME	PARTY_ID
Schrute, Dwight Main Main dschrute@dm.us Scott, Michael Boss Direct 800 555-1212 Scott, Michael Boss Personal 952 555-1212 Scott, Michael Boss Direct michael.scott@dm.us	1	800 555-1212	Main	Main	Schrute, Dwight	21
1Scott, MichaelBossDirect800 555-12121Scott, MichaelBossPersonal952 555-12121Scott, MichaelBossDirectmichael.scott@dm.us	s.com 2	TheSilentNinja@SchruteFarms.com	Personal	Main	Schrute, Dwight	21
1 Scott, Michael Boss Personal 952 555-1212 1 Scott, Michael Boss Direct michael.scott@dm.us	3	dschrute@dm.us	Main	Main	Schrute, Dwight	21
1 Scott, Michael Boss Direct michael.scott@dm.us	1	800 555-1212	Direct	Boss	Scott, Michael	1
	2	952 555-1212	Personal	Boss	Scott, Michael	1
41 Halpert, James D. Accounts Main 800 555-1212	3	michael.scott@dm.us	Direct	Boss	Scott, Michael	1
	1	800 555-1212	Main	Accounts	Halpert, James D.	41
		800 333-1212	MULII	ACCOUNTS	natpert, James D.	41

:RN = 1



Contact List

Limitations

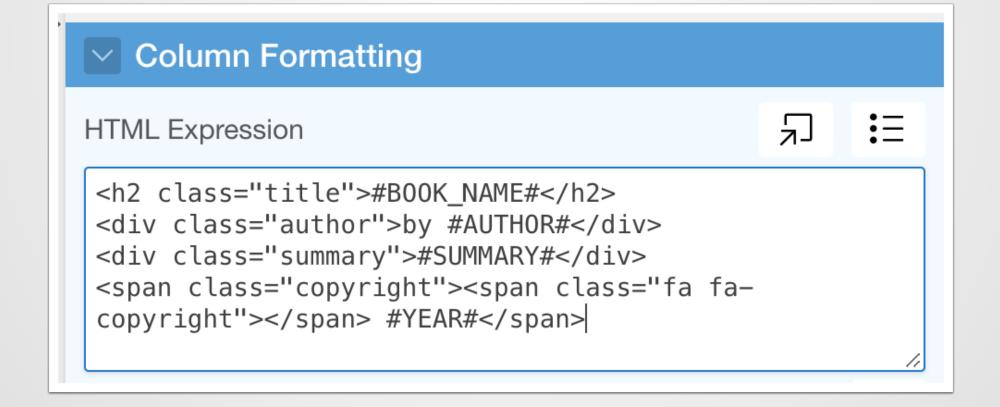
- Some HTML knowledge
- Templates are not that re-usable
- New columns require template changes
- Only 4 template conditions
- Potential Pagination Issues
- Limited support for Interactive Reports

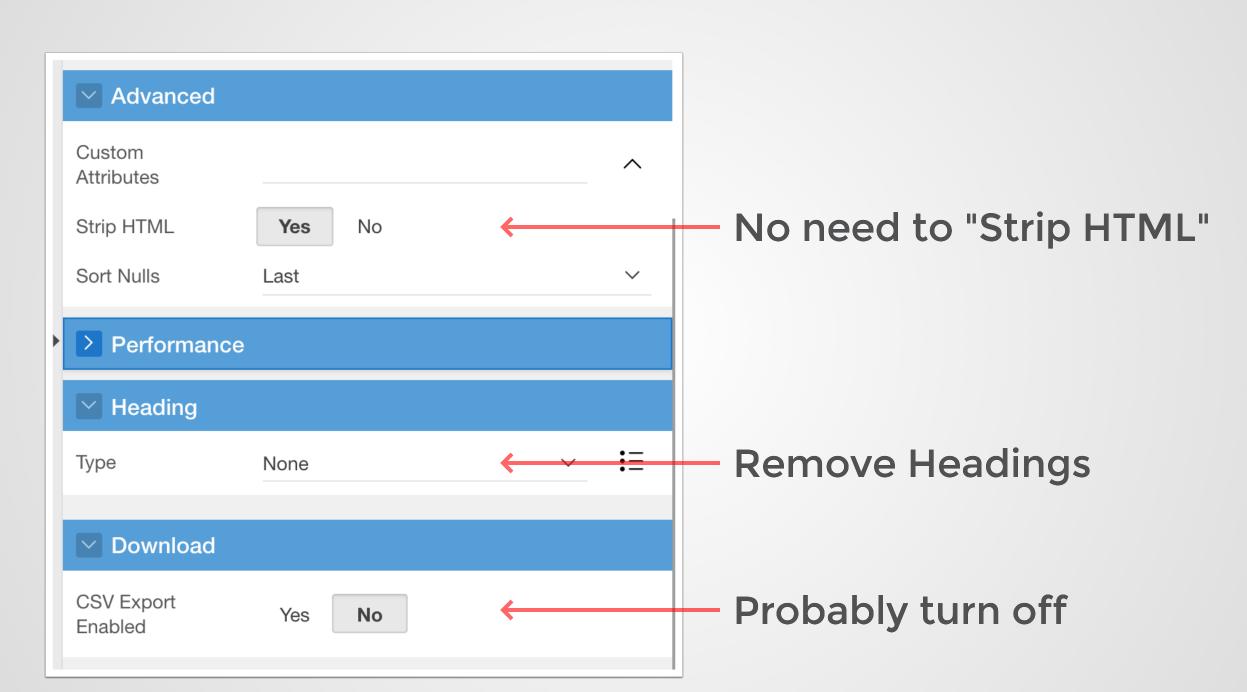
HTML Expression

Classic Reports Interactive Report

```
select b.id
    , b.book_name
    , b.author
    , b.year
    , b.summary
    from books b
order by b.book name
```

```
<h2 class="title">#BOOK_NAME#</h2>
<div class="author">by #AUTHOR#</div>
<div class="summary">#SUMMARY#</div>
<span class="copyright">© #YEAR#</span>
```





HTML Expression

Reliquary

by Preston/Child

The story picks up where the epilogue of Relic left off. Two headless skeletons are found in the Humboldt Kill. When further decapitated bodies follow, there is suspicion of a second Mbwun monster. Major characters from the original book team up with new ones to solve the puzzle. The mystery soon leads underground to the Mole people, and even deeper towards enigmatic beings called the Wrinklers. In the end, it is revealed that the Wrinklers are led by Frock, who has refined a modified version of the Mbwun plant, created by Kawakita to regain the use of his legs. Kawakita also gave the drug to the people who were to become the Wrinklers, later made into his tribe by Frock. After going underground, the group kills them with an explosion, vitamin D infused water and a flood.

© 1997

The Cabinet of Curiosities

by Preston/Child

Dr. Nora Kelly's life as an archeologist at New York City's American Museum of Natural History becomes complicated when Aloysius X. L. Pendergast, a secretive and highly resourceful FBI Special Agent, convinces her to help him uncover the truth behind a string of brutal murders that appears to stretch back 130 years.



Still Life with Crows

by Preston/Child

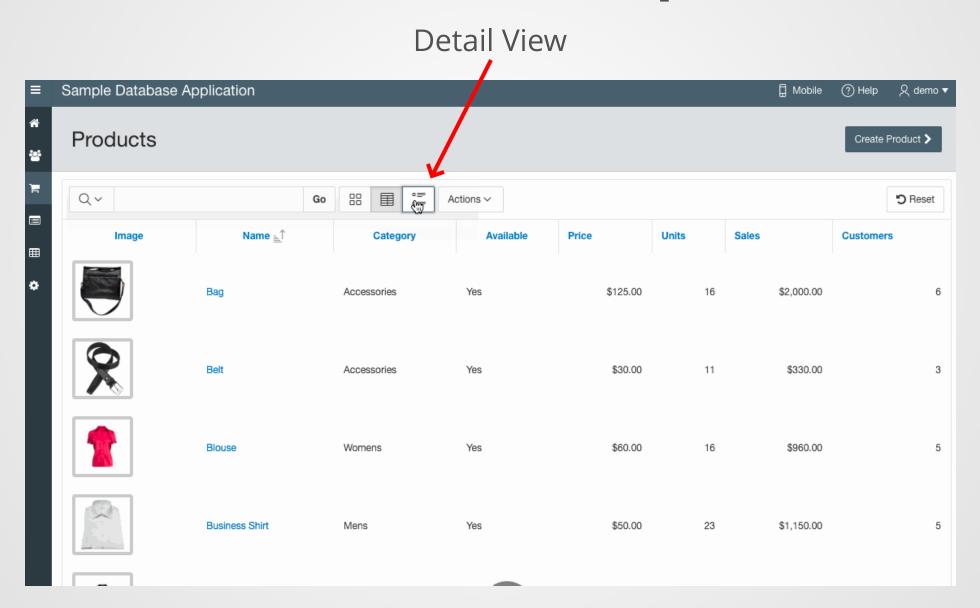
Agent Pendergast visits Medicine Creek, Kansas after a gruesome murder occurs. With the help of local teenaged misfit Corrie

Detail View

Detail View Structure

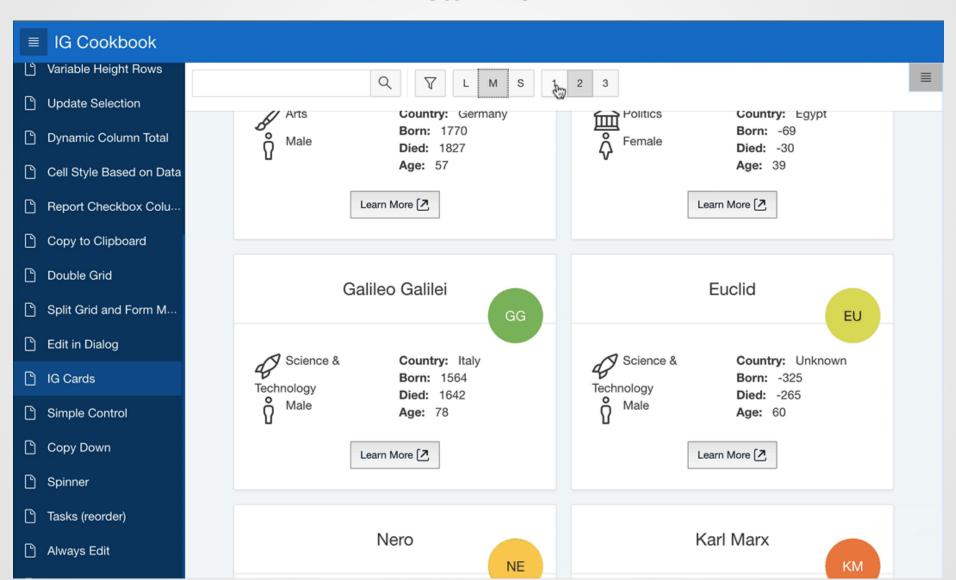
```
<u1>
                 Orange Juice <i class="fa fa-check-square-o"></i>
                 Milk <i class="fa fa-check-square-o"></i>
                 Eggs <i class="fa fa-square-o"></i>
                 Bread <i class="fa fa-square-o"></i>
                 Cornflakes <i class="fa fa-square-o"></i>
               <l
                                                     Before Rows
For Each Row --> #TODO# <i class="fa fa-#CHECKED#square-o"></i>
               After Rows
```

Interactive Reports



Interactive Grid

Detail View



Interactive Grid

Card View example

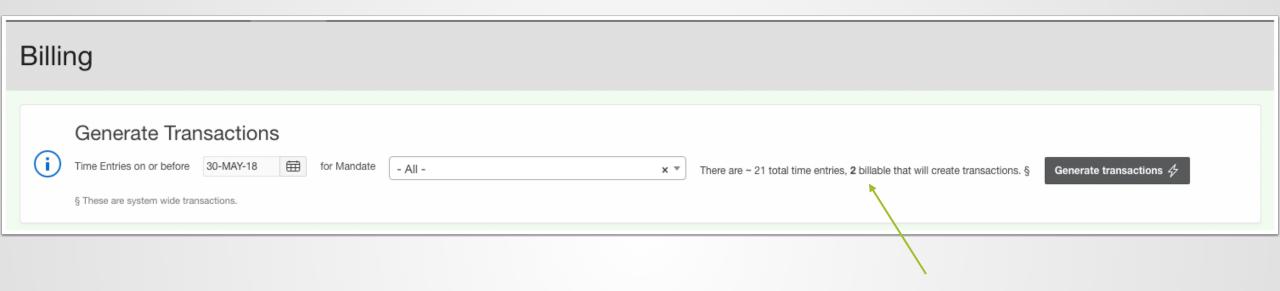
Example from John Snyders hardlikesoftware.com

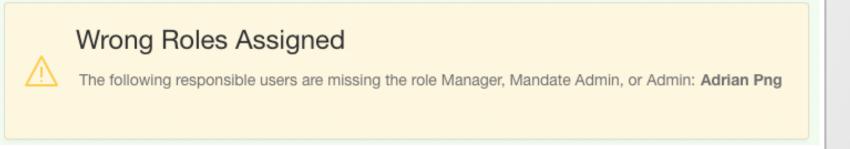
John Snyders IG Cookbook

hardlikesoftware.com/weblog/2018/01/01/apex-ig-cookbook-for-5-1-4/

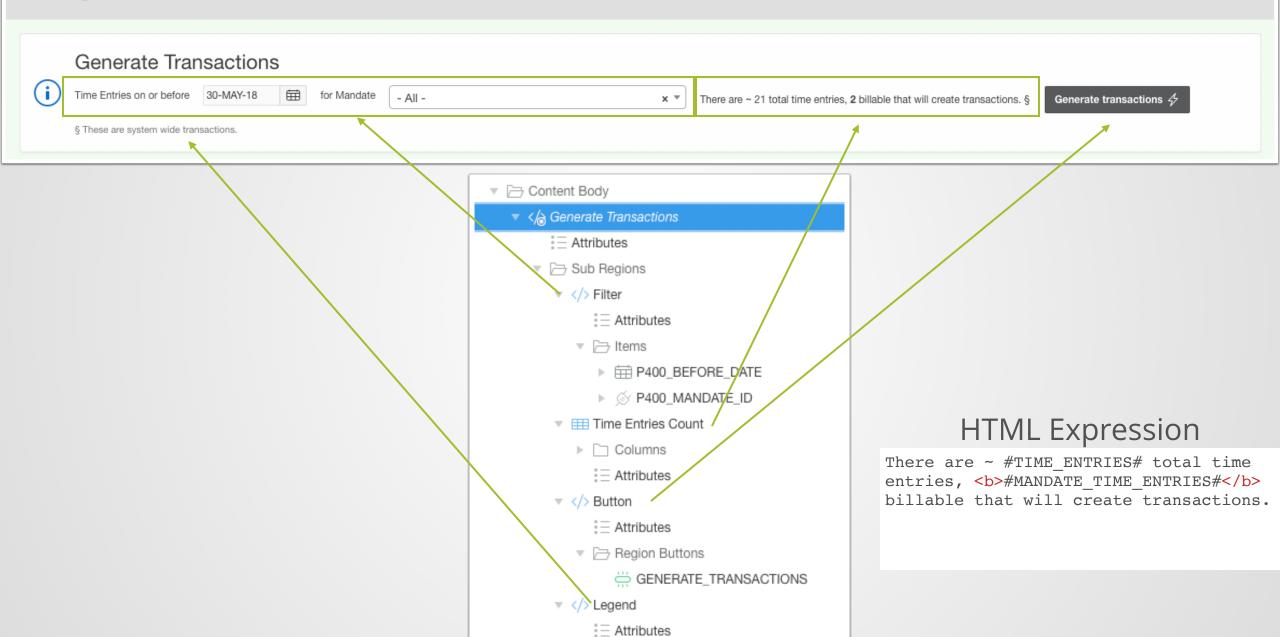
Single Line Alerts & Messages

Examples





Billing



HTML Expression

Reference your columns via the #COLUMN_NAME# notation

Columns are still escaped!
Use any HTML you want



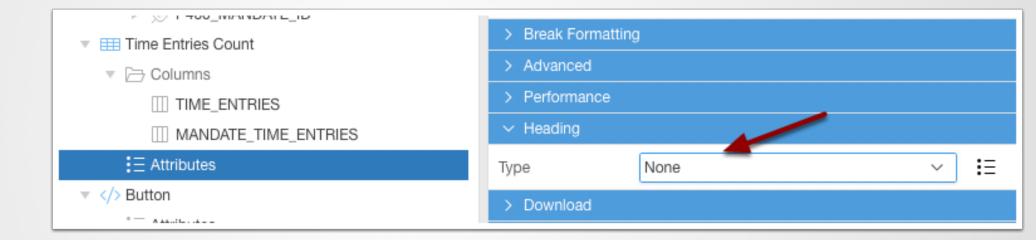
Remove Pagination

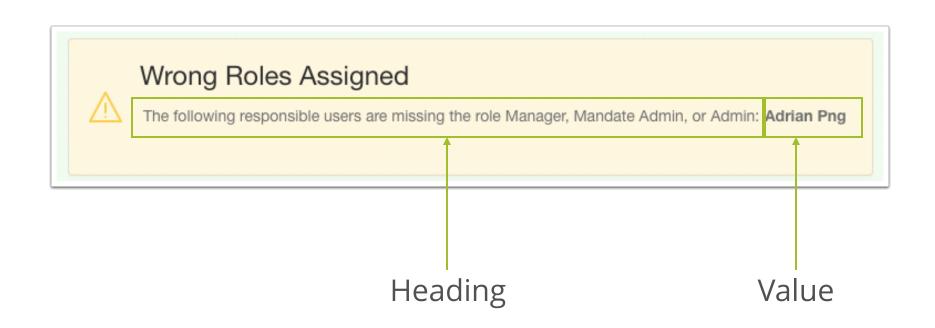
Under Report Attributes

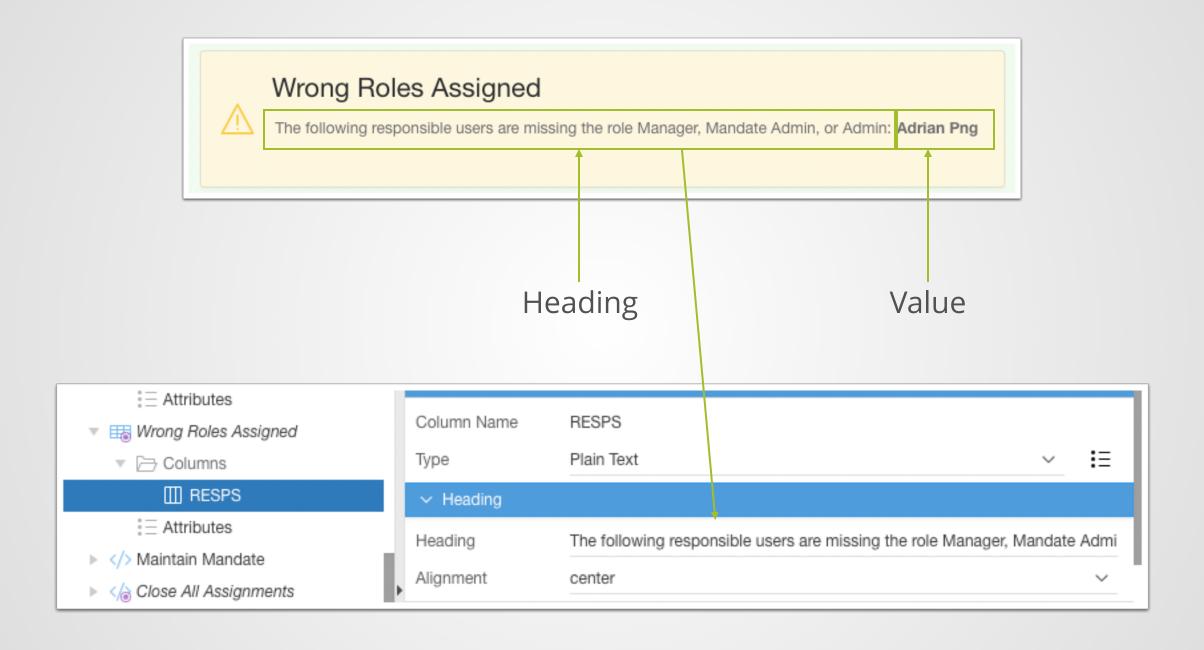


Remove Headings

Under Report Attributes

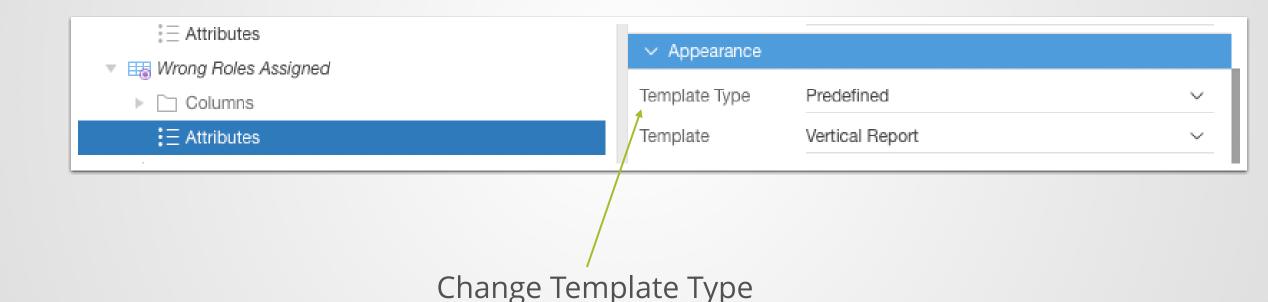






Report Template: Vertical Report

Under Report Attributes



Also, turn off Pagination!





This is a good time to fill out the evaluations



rimblas.com/blog/presentations

Of course, you can do that with APEX! Report Templates; the definitive guide

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