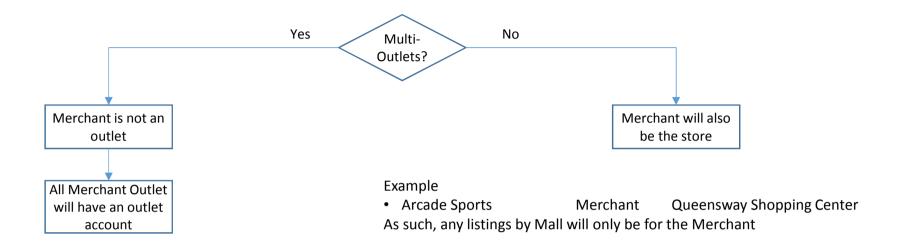
Update on List/Search by Mall

14 May 2015

Record Structure for Merchants



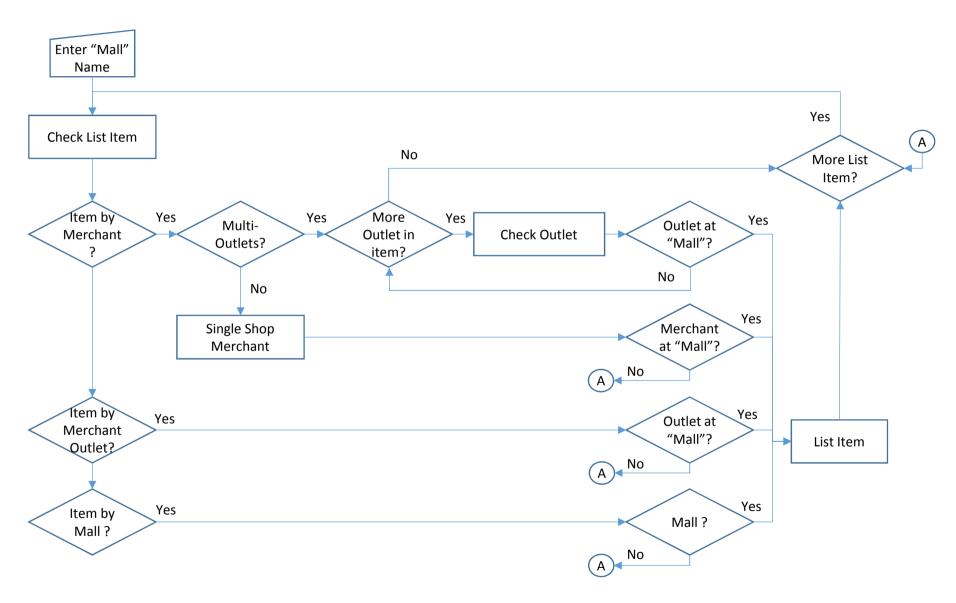
Example

• Din Tai Fung Merchant Breadtalk IHQ

Din Tai Fung JEM Merchant Outlet JEM
 Din Tai Fung NEX Merchant Outlet NEX

As such, any listings by Mall will only be for the 2 outlets. Merchant is not included

List/Search by Mall Logic



Flow as envisioned by ShopAbooji

Issue 1 : List/Search Mall = "Breadtalk IHQ"

Result should list all items that are offered at the Mall = "Breadtalk IHQ", which should include:

- All Merchant (multi-outlets) who has a listing which includes an outlet at "Breadtalk IHQ"
- 2. All Merchant (single store) whose store is in "Breadtalk IHQ"
- 3. All Merchant Outlet which is at "Breadtalk IHQ"
- 4. All Mall listing for "Breadtalk IHQ"



Result (on left) after list by "Breadtalk IHQ" which is WRONG!

"Din Tai Fung" structure with Mall is as follows:

Din Tai Fung
 Din Tai Fung JEM
 Merchant Outlet
 JEM

• Din Tai Fung NEX Merchant Outlet NEX

There is no Merchant Outlet at "Breadtalk IHQ".

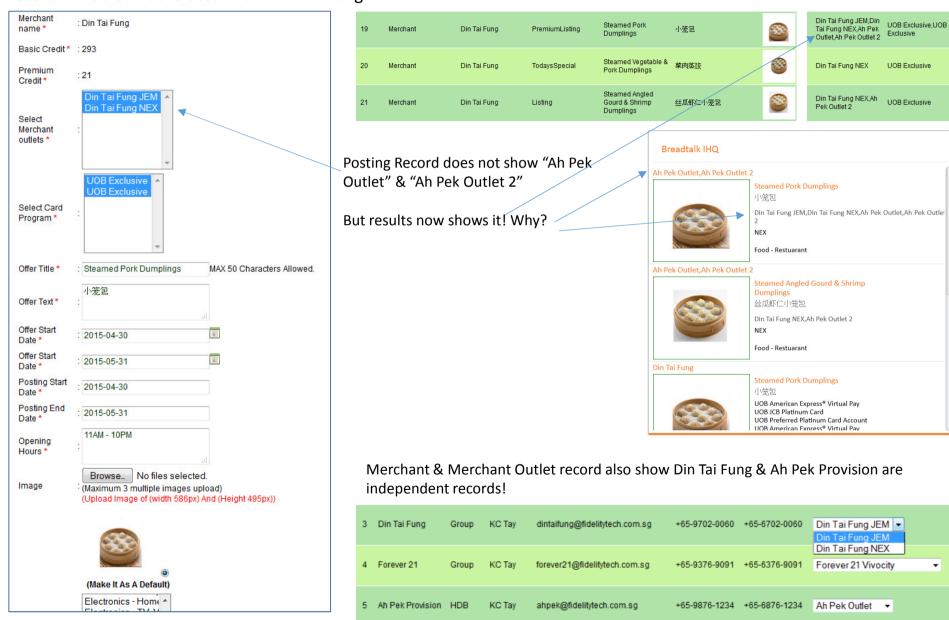
Problem here arises because Merchant is located at "Breadtalk IHQ", your algorithm wrongly concludes that the listing is valid for Mall = "Breadtalk IHQ". Please follow logic provided in previous page.

19	Merchant	Din Tai Fung	PremiumListing	Steamed Pork Dumplings	小笼包	®
20	Merchant	Din Tai Fung	TodaysSpecial	Steamed Vegetable & Pork Dumplings	菜肉蒸饺	
21	Merchant	Din Tai Fung	Listing	Steamed Angled Gourd & Shrimp Dumplings	丝瓜虾仁小笼包	889

Din Tai Fung JEM,Din Tai Fung NEX,Ah Pek Outlet,Ah Pek Outlet 2	UOB Exclusive,UOB Exclusive
Din Tai Fung NEX	UOB Exclusive
Din Tai Fung NEX,Ah Pek Outlet 2	UOB Exclusive

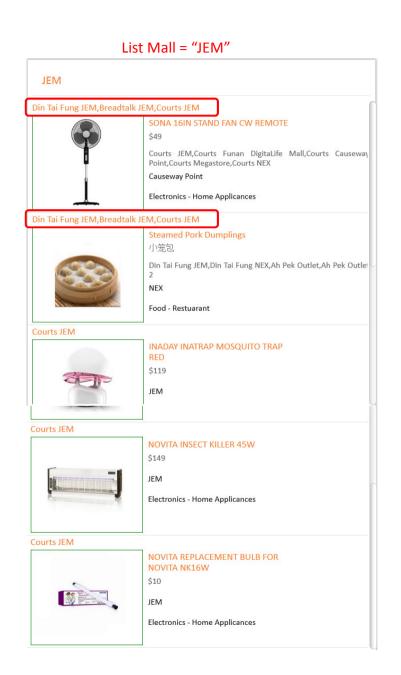
Issue 1a: List/Search Mall = "Breadtalk IHQ"

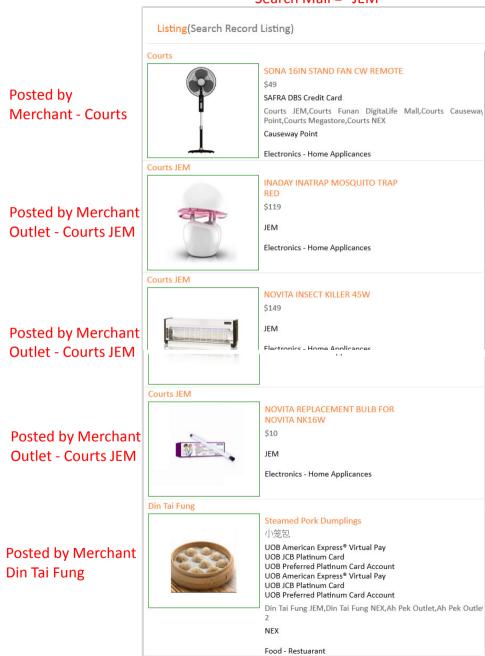
Why is listing record now corrupted with wrong data? Ah Pek Outlet and Ah Pek Outlet 2 is not even in the detail record! It is also not related with "Din Tai Fung"



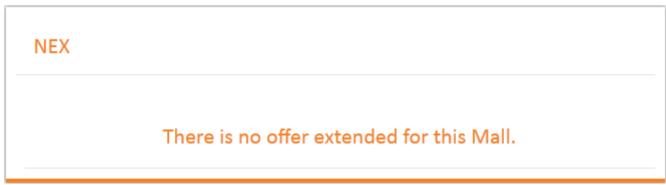
Issue 2: List & Search Mall = "JEM" correctly turned up all 5 records but different result presentation

Search Mall = "JEM"





Issue 3: List/Search Mall = "NEX" turned up nothing when there are 3 records





Record has at least 3 items listed under Mall = "NEX" (note that problem is still related to that this is listed Merchant as an outlet)

19	Merchant	Din Tai Fung	PremiumListing	Steamed Pork Dumplings	小笼包	**
20	Merchant	Din Tai Fung	TodaysSpecial	Steamed Vegetable & Pork Dumplings	菜肉蒸饺	*
21	Merchant	Din Tai Fung	Listing	Steamed Angled Gourd & Shrimp Dumplings	丝瓜虾仁小笼包	

Din Tai Fung JEM,Din Tai Fung NEX,Ah Pek Outlet,Ah Pek Outlet 2	UOB Exclusive,UOB Exclusive
Din Tai Fung NEX	UOB Exclusive
Din Tai Fung NEX,Ah Pek Outlet 2	UOB Exclusive

Additional Slides 21 May 2015

Results of Mall listing expected

List/Search Mall = "OneKM" - Current Result

One KM

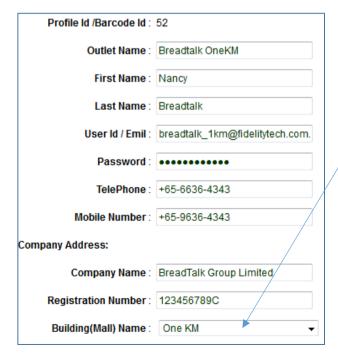
There is no offer extended for this Mall.

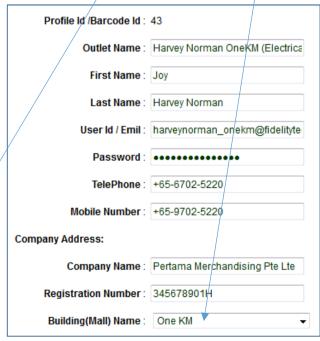
List/Search Mall = "OneKM" – Expected Result

Listings posted by Merchants with outlet as Mall = "OneKM"

Sr. No.	User Type	Merchant	Offer Type	Offer Title	Offer Text	Listing Image	Start Date(Sorts same type months)	End Date(Sorts same type months)	Outlet
1	Merchant	Breadtalk	Listing	Breadtalk Café Concept	More for Less!		2015-04-06	2015-05-31	Breadtalk OneKM,Breadtalk Causeway Point
2	Merchant	Harvey Norman	TodaysSpecial	JBL Synchros Reflect I Sport In-Ear Headphones	\$169	*	2015-04-21	2015-05-31	Harvey Norman Bedok Point (Electrical. Computer), Harvey Norman OneKM (Electrical. Computer), Harvey Norman Coffee & Cooking Concept Store @ The Centrepoint

Search Engine should produce these two listings as both listings included Outlets which has OneKM as the Mall





List/Search Mall = "Funan DigitalLife Mall" – Current Result

Funan DigitaLife Mall



Earn 1.5X STARS®

With PAssion Card

109 North Bridge Road Singapore 179097

Woman Fashion, Woman Shoe, Woman Accessories, Man Fashion, Man Shoe, Man Accessories, Children Wear, Sports Wear, Electronics - TV, Video, Electronics - Audio, Electronics -Home Applicances, Electronics - Communication, Electronics -Computer, Food - Restuarant, Food - Cafe, Food - Hawker Fare, Entertainment - Park, Entertainment - Night Correct
Listings posted by Mall =
"Funan DigitaLife Mall"



Free Local Upsize

Jollibean

Funan DigitaLife Mall

Food - Cafe

Correct
Listings posted by Mall =
"Funan DigitaLife Mall"



8 FOR \$8

PastaMania

Funan DigitaLife Mall

Food - Restuarant

Correct
Listings posted by Mall =
"Funan DigitaLife Mall"

List/Search Mall = "Funan DigitaLife Mall" — Expected Result

Listings posted by Mall = "Funan DigitaLife Mall"

1170	Manager									
Add N	lew 🥱 B									
	Sr. No.	User Type	Mall	Offer Type	Offer Title	Offer Text	Listing Image	Start Date	End Date	
	1	Mall	Funan DigitaLife Mall	Ad	Free Parking!	After 6pm	Ø FREE	2015-05-11	2015-05-31	
	2	Mall	Funan DigitaLife Mall	PremiumListing	Earn 1.5X STAR\$®	With PAssion Card	SA ESION	2015-05-11	2015-05-31	
	3	Mall	Funan DigitaLife Mall	TodaysSpecial	Free Local Upsize	Jollibean		2015-04-21	2015-05-31	
	4	Mall	Funan DigitaLife Mall	PremiumListing	8 FOR \$8	PastaMania	8	2015-04-21	2015-05-31	
Listings posted by Merchants with outlet at Mall = "Funan DigitaLife Mall"										
0	Merchant	t Courts	TodaysSpe	cial PANAS	ONIC 2 FRIDGE 190L \$449		2015-04-28	2015-05-31	Courts Funan DigitaLife Mall	

10	Merchant	Courts	TodaysSpecial	PANASONIC 2 DOOR FRIDGE 190L	\$449		2015-04-28	2015-05-31	Courts Funan DigitaLife Mall
11	Merchant	Courts	PremiumListing	FUJI XEROX COLOR LASER PRINTER	\$269		2015-04-28	2015-05-31	Courts Causeway Point
12	Merchant	Courts	Listing	SONA 16IN STAND FAN CW REMOTE	\$49	Ŷ	2015-04-28	2015-05-31	Courts JEM,Courts Funan DigitaLife Mall,Courts Causeway Point,Courts Megastore,Courts NEX

Search Engine

- (1) Correctly displayed listing posted by Mall
- (2) Missed out listing posted by Merchant

List/Search Mall = "Breadtalk IHQ" - Current Result

Breadtalk IHQ

Breadtalk



Breadtalk Café Concept

More for Less!

Breadtalk OneKM,Breadtalk Causeway Point 23 Serangoon Central Singapore 556083

Food - Cafe

Din Tai Fung



Steamed Pork Dumplings

小笼包

UOB American Express® Virtual Pay UOB JCB Platinum Card UOB Preferred Platinum Card Account UOB American Express® Virtual Pay UOB JCB Platinum Card UOB Preferred Platinum Card Account

Din Tai Fung JEM, Din Tai Fung NEX

NEX

Food - Restuarant

Din Tai Fung



Steamed Vegetable & Pork Dumplings

菜肉蒸饺

UOB American Express® Virtual Pay UOB JCB Platinum Card UOB Preferred Platinum Card Account

Din Tai Fung NEX

NEX

Food - Restuarant

Din Tai Fung



Steamed Angled Gourd & Shrimp Dumplings

经瓜虾仁小笼包

UOB American Express® Virtual Pay UOB JCB Platinum Card UOB Preferred Platinum Card Account

Din Tai Fung NEX

NEX

Food - Restuarant

Note:

Both Merchant are location are at Mall = "Breadtalk IHQ" but none of the listings

Wrong

Listings posted by Merchant but with no outlet at Mall = "Breadtalk IHQ"

Wrong

Listings posted by Merchant but with no outlet at Mall = "Breadtalk IHQ"

Wrong

Listings posted by Merchant but with no outlet at Mall = "Breadtalk IHQ"

Wrong

Listings posted by Merchant but with no outlet at Mall = "Breadtalk IHQ"

List/Search Mall = "Funan DigitaLife Mall" – Expected Result

Listings posted by Merchants with outlet at Mall = "Breadtalk IHQ"

Merchant	Breadtalk	Listing	Breadtalk Café Concept	More for Less!		2015-04-06	2015-05-31	Breadtalk OneKM,Breadtalk Causeway Point
Merchant	Din Tai Fung	PremiumListing	Steamed Pork Dumplings	小幾包	8	2015-04-30	2015-05-31	Din Tai Fung JEM,Din Tai Fung NEX
Merchant	Din Tai Fung	TodaysSpecial	Steamed Vegetable & Pork Dumplings	菜肉蒸饺	8	2015-04-30	2015-05-31	Din Tai Fung NEX
Merchant	Din Tai Fung	Listing	Steamed Angled Gourd & Shrimp Dumplings	丝瓜虾仁小幾包		2015-04-30	2015-05-31	Din Tai Fung NEX

Breadtalk OneKM is a Merchant Outlet with Mall = "OneKM"
Breadtalk Causeway Point is a Merchant Outlet with Mall = "Causeway Point"
Both are outlets of Merchant Breadtalk. Merchant Breadtalk is at Mall =
"Breadtalk IHQ" but Merchant Breadtalk should not be included in listing.
Please refer to flow chart in Slides 2 & 3

Din Tai Fung JEM is a Merchant Outlet with Mall = "JEM"

Din Tai Fung NEX is a Merchant Outlet with Mall = "NEX"

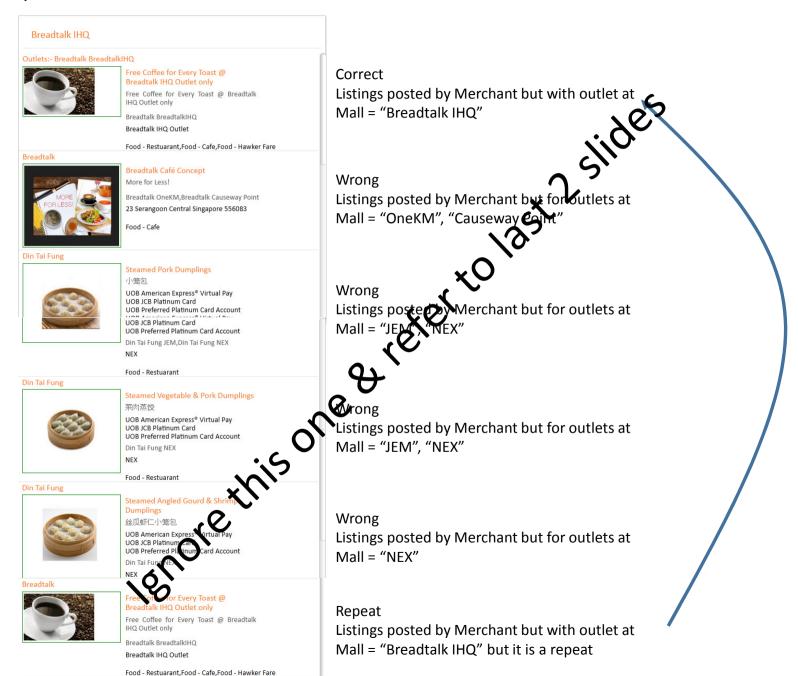
Both are outlets of Merchant Din Tai Fung. Merchant Din Tai Fung is at Mall = "Breadtalk IHQ" but Merchant Din Tai Fung should not be included in listing.

Please refer to flow chart in Slides 2 & 3

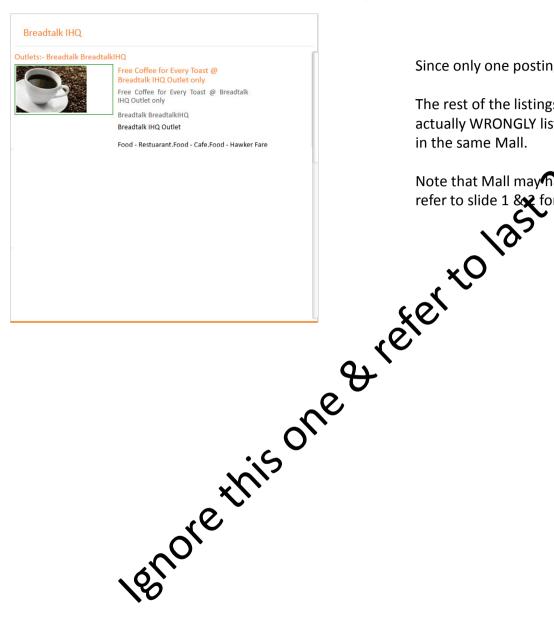
Additional Slides 22 May 2015

Results of Mall listing expected

List/Search Mall = "Breadtalk IHQ" - Current Result



List/Search Mall = "Breadtalk IHQ" – Expected Result



Since only one posting if for an outlet at Mall = "Breadtalk IHQ"

The rest of the listings in previous tage (except for the repeat) are actually WRONGLY listing possings done by Merchant which office is in the same Mall.

Note that Mall may have both retail shops and offices. So please refer to slide 1 & for explanation.

List/Search Mall = "Vivocity" - Current Result

Vivocity Outlets:- Forever 21 Vivocity Life in Progress Destroyed Clean Wash \$24.90 UOB American Express® Virtual Pay Forever 21 Vivocity Forever 21 Vivocity Outlets:- Forever 21 Vivocity Classic Chambray Shirt \$19.90 UOB American Express® Virtual Pay Forever 21 Vivocity, Forever 21 313@Somerset Forever 21 Vivocity Woman Fashion Brooklyn Nets Logo Hoodie = \$24.90 UOB American Express® Virtual Pay Forever 21 Vivocity Forever 21 Vivocity Woman Fashion Outlets:- Forever 21 Vivocity Sleeveless Hooded Top \$19.90 UOB American Express® Virtual Pay Forever 21 Vivocity Forever 21 Vivocity Woman Fashion Outlets:- Forever 21 Vivocity Married to the Mob Raglan Sweatshirt UOB American Express® Virtual Pay Forever 21 Vivocity Forever 21 Vivocity Woman Fashion Life in Progress Destroyed Clean Wash \$24.90 UOB American Express® Virtual Pay Forever 21 Vivocity Forever 21 Vivocity Woman Fashion Classic Chambray Shirt UOB American Express® Virtual Pay Forever 21 Vivocity, Forever 21 313@Somerset Woman Fashion

Correct
Listings posted by Merchant
with outlet at Mall = "Vivocity"

Correct Listings posted by Merchant but with outlet at Mall = "Vivocity", "313@Some set"

Correct Listings posted by Merchant with outlet at Mall = "Vivocity"

Listings posted by Merchant

Listings posted by Merchant

with outlet at Mall = "Vivocity"

with outlet at Mall = "Vivocity"

Correct <

Correct <

Repeat
Listings posted by Merchant
with outlet at Mall = "Vivocity"

Repeat
Listings posted by Merchant
with outlet at Mall = "Vivocity"

Repeat Listings posted by Merchant with outlet at Mall = "Vivocity"

Forever 21

Brooklyn Nets Logo Hoodie \$24.90 UOB American Express® Virtual Pay Forever 21 Vivocity Forever 21 Vivocity Woman Fashion

Forever 21

Sleeveless Hooded Top \$19,90 UOB American Express® Virtual Pay Forever 21 Vivocity Forever 21 Vivocity Woman Fashion

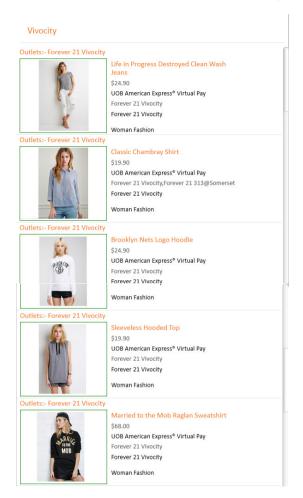
Orever 21

Married to the Mob Raglan Sweatshirt \$68.00 UOB American Express* Virtual Pay Forever 21 Vivocity Forever 21 Vivocity Woman Fashion

Repeat
Listings posted by Merchant
with outle; at Mall = "Vivocity"

Repeat
Listings posted by Merchant
with outlet at Mall = "Vivocity"

List/Search Mall = "Vivocity" - Expected Result



Since only one posting if for an outlet at Mall = "Vivocity"

The repeats should not happen.

Note that Mall may have both retail shops and offices. So please refer to slide 1 & 2 for explanation.

List/Search Mall = "Queensway Shopping Center" – Current Result

Queensway Shopping Centre

Outlets:-



GRAYS 9000 TURBO TORQUE HOCKEY STICK

We've got 30 sticks in lengths of 36" - 37" to clear before the season ends! Retailing at \$\$429, these sticks are now finally going at 70% OFF. This promotion is while stocks last and valid to the first 30 customers with a PICTURE ID STUDENT CARD!

ARCADE SPORTS, Queensway Shopping Centre, #01-16/#02-19

Sports Wear, Sports Equipment

Correct

Listings posted by Merchant (with only one shop and no multi-outlets) at Mall = "Queensway Shopping Center"

List/Search Mall = "Breadtalk IHQ" - Current Result (Enhanced Test)

Breadtalk IHO

Outlets:- Breadtalk BreadtalkIHQ



Free Coffee for Every Toast @ Breadtalk IHQ Outlet only

Free Coffee for Every Toast @ Breadtalk IHQ Outlet only

Breadtalk BreadtalkIHQ Breadtalk IHQ Outlet

Food - Restuarant.Food - Cafe.Food - Hawker Fare

Outlets:



Ice Cream Buffet by Ice Cream Skool

\$12.90 for Ice Cream Buffet with Free Flow of Waffles at Ice Cream Skool (Worth \$32)

445 Tampines Street 42 Singapore 520445

Food - Cafe

Breadtall



Breadtalk Café Concep

More for Less

Breadtalk OneKM, Breadtalk Causeway Point 23 Serangoon Central Singapore 556083

Food - Cafe

Din Tai Fun

Din Tai Fung



Steamed Pork Dumplings

小笼包

UOB American Express® Virtual Pay UOB JCB Platinum Card UOB Preferred Platinum Card Account UOB American Express® Virtual Pay UOB JCB Platinum Card

UOB Preferred Platinum Card Account

Din Tai Fung JEM, Din Tai Fung NEX

NEX

Food - Restuarant



Steamed Vegetable & Pork Dumplings 茲內茲称

来冈杰饺 UOB American Express® Virtual Pay

UOB JCB Platinum Card
UOB Preferred Platinum Card Account
Din Tai Fung NEX

NEX

Food - Restuarant



Steamed Angled Gourd & Shrimp

丝瓜虾仁小笼包

UOB American Express® Virtual Pay UOB JCB Platinum Card UOB Preferred Platinum Card Account Din Tai Fung NEX

NEX

Food - Restuarant





Free Coffee for Every Toast @ Breadtalk IHQ Outlet only

Free Coffee for Every Toast @ Breadtalk IHQ Outlet only

Breadtalk BreadtalkIHQ Breadtalk IHQ Outlet

Food - Restuarant, Food - Cafe, Food - Hawker Fare

Correct

Listings posted by Merchant but with outlet at Mall = "Breadtalk IHQ"

Correct

Listings posted by Merchant but single shop at Mall = "Breadtalk IHQ"

Wrong

Listings posted by Merchant but for outlets at Mall = "OneKM", "Causeway Point"

Wrong

Listings posted by Merchant but for outlets at Mall = "JEM", "NEX"

Wrong

Listings posted by Merchant but for outlets at Mall = "JEM", "NEX"

Wrong

Listings posted by Merchant but for outlets at Mall = "NEX"

Repeat

Listings posted by Merchant but with outlet at Mall = "Breadtalk IHQ" but it is a repeat



List/Search Mall = "Breadtalk IHQ" - Expected Result (Enhanced Test)

Breadtalk IHQ

Outlets:- Breadtalk BreadtalkIHQ



Free Coffee for Every Toast @ Breadtalk IHQ Outlet only

Free Coffee for Every Toast @ Breadtalk IHQ Outlet only

Breadtalk BreadtalkIHQ

Breadtalk IHQ Outlet

Food - Restuarant, Food - Cafe, Food - Hawker Fare

Outlets:



Ice Cream Buffet by Ice Cream Skool

\$12.90 for Ice Cream Buffet with Free Flow of Waffles at Ice Cream Skool (Worth \$32)

445 Tampines Street 42 Singapore 520445

Food - Cafe

Expected Result

Since the multi-outlets Merchant only this posting is for an outlet at Mall = "Breadtalk IHQ"

Expected Result

Since this Merchant has only one store and posting is for at Mall = "Breadtalk IHQ"

The rest of the listings in previous page (except for the repeat) are actually WRONGLY listing postings done by Merchant which office is in the same Mall.

Note that Mall may have both retail shops and offices. So please refer to slide 1 & 2 for explanation.