

**USER GUIDE V1.0** 

# **IFC Application**

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## 1) IFC Store Sales Overview

#### IFC Store Sales Overview

IFC Application Ove







Upon entering the application, the user will be greeted with the IFC Stores Sales Overview page.



Fig 1b

This page is also accessible by clicking on the "Overview" tab located at the top left of the application.

Users will be able to analyse the sales performance of all stores, through a selected period using this page.

The following information is displayed in this dashboard:

1. An interactive choropleth map



Fig 1c

The map displays all stores trade area, and the shading of the colour is represented by the sales amount. Upon clicking on any trade area, a tooltip will appear, displaying the total amount of sales for that store.

Store Sales between Sep 2018 And Aug 20 9 🕂 💭 🖪 🗖 🔀 🔿 11 **H** 🚍 ilii reorder('Area Code', -'Sales: '): MA Sales: : 13863637 \$10,000,000. Median, All Store Sales: \$ 9597893 es Sal \$5,000,000 \$0 MA YW CA NC KF нн SS ST TA KT HD WT CR YT Stores Fig 1d

The X axis represents every store, and the Y axis is the total sales in USD. The median is display to allow for quick categorizing of store performance. Upon mousing over any bar, a tooltip will appear, displaying the actual number of sales for that particular store.

3. Left panel for options

2. An interactive Bar chart

an 2018	Dec 2019	Apr 2019	Aug 201
AP 2010			Aug 20
ar Chart Order:			
ar Chart Order:			

Fig 1e

There are two options available:

- Filter by Sales by Month
- Sort the Bar chart by ascending or descending

These options affect all visualizations contained in the page. For example, according to the values in the above figure, the display will show all sales from Dec 2018 to Apr 2019 as well as sorting the bar chart by ascending order. The output is as follows:



Fig 1f

### 2) Individual IFC Store Information

IFC Application	Overview	Individual Store	Comparison
	Fig 2	а	

This page is accessible by clicking on the "Individual Store" tab located at the top left of the application.

This page allows the user to inspect each individual stores, and view its Point of Interests (POIs) and Sales.

The following information is displayed in this dashboard:

1. Total Sales for Store X



Fig 2b

2. Interactive Cloropleth map of number of POIs for each subzone at Store X



Leaflet | Tiles © Esri — Esri, DeLorme, NAVTEQ, Tiles © Esri — Esri, DeLorme, NAVTEQ, TomTom, Intermap, IPC, USGS, FAO, NPS, NRCAN, GeoBase, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

Fig 2c

The map displays all subzones of the trade area, denoted by the names on the polygon. Clicking on the Pizza Symbol brings up the full name of the store. Clicking on the subzone brings up the total number of selected POIs in the subzone.



3. Line chart displaying the sales for Store X and the Median



The line chart shows the total sales for Store X and the median for all stores over time. The line chart is interactive, and mousing over the points bring up the date and sales of the respective stores. As the line chart is built upon Plotly, there are several options that enhance the interactivity of the chart.



One important feature located on the top right of the line chart, "Compare data on hover", allows the user to view two data points at a single point in time, as pictured by Fig 2d.

4. Data table listing of each POI for Store X

	CA
BANK_POINTS	87
BAR.OR.PUB_POINTS	21
BOOKSTORE_POINTS	2
BOWLING.CENTRE_POINTS	0
BUS.STATION_POINTS	0
BUSINESS.FACILITY_POINTS	145
RESIDENTIAL.AREA.BUILDING_POINTS	0
MOSBURGER_POINTS	6

Fig 2f

The data table shows all POIs located in the trade area of Store X. The table contains an alphabetical search function, as well as the ability to sort by numerical value by clicking on the arrows buttons on the top right. The table also allows a limitation of rows.

#### 5. Left Panel for options

Store:	
КТ	•
Point of Interest:	

Fig 2g

There are two options available:

- Filter by Store
- Filter by Point of Interest

These options affect all visualizations contained in the page. For example, the store "KT" and point of interest "PHARMACY" is selected from the dropdown list. The output is as follows:

KT	-
Point of Interest:	
PHARMACY	•
Show 10 + entries	Search:
	KT
TOTAL_POINTS	2457
ATM_POINTS	.71
BANK_POINTS	32
BAR.OR.PUB_POINTS	10
BOOKSTORE_POINTS	11
BOWLING.CENTRE_POINTS	1
BUS.STATION_POINTS	a
BUSINESS.FACILITY_POINTS	50
CINEMA_POINTS	25
CLOTHING.STORE_POINTS	153
Showing 1 to 10 of 38 entries	Previous 1 2 3 4 Next



Fig 2h

### 3) Comparison Between Stores

IFC Application	Overview	Individual Store	Comparison
	F	Fig 3a	

This page is accessible by clicking on the "Comparison" tab located at the top left of the application.

This dashboard allows the user to compare Store X and Store Y to analyse its Points of Interest (POI), Sales and discover the differences between the two stores.

The following information is displayed in this dashboard:

1. Total Sales for Store X, Store Y and Median for all stores





2. Interactive Cloropleth map of number of POIs for for Store X and Store  $\ensuremath{\gamma}$ 





The map displays the trade area of Stores X and Y, denoted by the names on the polygon. Clicking on the Pizza Symbol brings up the full name of the store. Clicking on the trade area brings up the total number of selected POIs in the trade area.

3. Line chart displaying the sales for Store X, Y and the Median



The line chart shows the total sales for Store X, Y and the median over time. The line chart is interactive, and mousing over the points bring up the date and sales of the respective stores. As the line chart is built upon Plotly, there are several options that enhance the interactivity of the chart.



Fig 3e

One important feature located on the top right of the line chart, "Compare data on hover", allows the user to view multiple data points at a single point in time, as pictured by Fig 3d

4. Data table listing of each POI for Store X, Y

	CA	KF 🔻
BUSINESS.FACILITY_POINTS	145	258
BANK_POINTS	87	58
BAR.OR.PUB_POINTS	21	32
BOOKSTORE_POINTS	2	20
RESIDENTIAL.AREA.BUILDING_POINTS	0	8
MOSBURGER_POINTS	6	4
BOWLING.CENTRE_POINTS	0	1
BUS.STATION_POINTS	0	0
Showing 1 to 8 of 8 entries (filtered from 38	total ent	ries)
Previous	1	Next



The data table shows all POIs located in the trade area of Store X,Y. The table contains an alphabetical search function, as well as the ability to sort by numerical value by clicking on the arrows buttons on the top right. The table also allows a limitation of rows.

#### 5. Left panel for options

Store 1:			
СА			•
Store 2:			
КТ			•
Sales by Month:			
Sep 2018	Dec 2018	May 2019	Aug 2019
Point of Interest:			
RESTAURANT			•

Fig 3g

There are Four options available:

- Filter by Store 1
- Filter by Store 2
- Filter by Sales by Month
- Filter by Point of Interest

These options affect all visualizations contained in the page. For example, the month range between Dec 2018 to May 2018 is selected using the slider bar, followed by the stores "CA" and "KT" and point of interest "RESTAURANT" are selected from the dropdown list.



It will result in the following visualisation:

Fig 3h