



INNOVATING BUSINESS INTELLIGENCE WITH MICROSOFT POWER BI



**What?
&
Why?**



Let's start with a small story

The story is about a giant who owns a beautiful garden. Initially, children loved playing in the giant's garden, but when the giant returned after seven years away, he banned the children from entering and built a high wall to keep them out. As a result, the garden became perpetually winter with frost, snow, and cold north winds.

One day, the giant heard a child crying outside and found the remaining children trying in vain to play in the tree branches that stretched over the wall. Seeing one boy too small to reach the branches, the giant had a change of heart, realizing his selfishness had ruined the garden. He tore down the wall and let the children play in his garden once more. Spring returned, the trees blossomed, and the birds sang. The selfish giant grew old but was happier for letting the children in.



The Selfish Giant





For example,

Student Report Card

Student Report Card

Name: Yad Ali	1 st term Exam			2 nd Term Exam			Final Term Exam		
Subjects	Total Marks	Obt Marks	Status	Total Marks	Obt Marks	Status	Total Marks	Obt Marks	Status
English	100	78	Pass	100	89	Pass	100	91	Pass
Urdu	100	79	Pass	100	80	Pass	100	92	Pass
Math's	100	75	Pass	100	85	Pass	100	85	Pass
Islamiyat	100	74	Pass	100	84	Pass	100	84	Pass
Physics/GSC	100	76	Pass	100	87	Pass	100	87	Pass
Chemistry/Drawing	100	80	Pass	100	87	Pass	100	80	Pass
Bio/Arabi	100	81	Pass	100	83	Pass	100	83	Pass
Pak Study	100	82	Pass	100	72	Pass	100	88	Pass
Total Marks	800	625	Pass	800	667	Pass	800	690	Pass
	Percentage Marks.....Grade.....			Percentage Marks.....Grade.....			Percentage Marks.....Grade.....		
	Incharge Sign.....			Incharge Sign.....			Incharge Sign.....		
	Principal/Headmaster sign.....			Principal/Headmaster sign.....			Principal/Headmaster sign.....		
	Guardian Sign.....			Guardian Sign.....			Guardian Sign.....		



Let's imagine a situation,



SIMPLE MONTHLY SALES REPORT TEMPLATE

SALES MANAGER NAME

COB L.

DATE

02/08/25

SALES REPORT

CURRENT MONTH				PREVIOUS MONTH			
	PLANNED	ACTUAL	VARIANCE		PLANNED	ACTUAL	VARIANCE
Sales Volume	\$45,000.00	\$44,000.00	\$(-)1,000.00	Sales Volume	\$44,000.00	\$46,000.00	\$2,000.00
Total Revenue	\$45,000.00	\$43,000.00	\$(-)2,000.00	Total Revenue	\$43,000.00	\$43,000.00	\$(-)2,000.00
Sales Margin	14%	20%	+%	Sales Margin	14%	20%	+%
Total Orders	14	17	3	Total Orders	14	17	3
Average Order Value	\$32.00	\$25.00	\$(-)7.00	Average Order Value	\$31.00	\$25.00	\$(-)6.00
Other	\$14.00	\$15.00	\$1.00	Other	\$14.00	\$15.00	\$1.00
	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -

YEAR-TO-DATE SALES

	PLANNED	ACTUAL	VARIANCE
Sales Volume	\$130,000.00	\$132,000.00	\$18,000.00
Total Revenue	\$240,000.00	\$152,000.00	\$(-)108,000.00
Sales Margin	14%	20%	+%
Total Orders	14	17	3
Average Order Value	\$25.00	\$25.00	\$ -
Other	\$14.00	\$15.00	\$1.00
	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -

Sales Performance Summary	On target for annual goals
Outside SWOT Elements	
Strengths	Regular customer outreach
Challenges	Staffing nights and weekends
Opportunities	
Threats	
Recommendations	



If it completely turned,

YouTube





YouTube Global Statistics

Global YouTube Statistics - Book

File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do

Font: Arial 11

Calibri 11

General

Conditional Formatting Styles Cells

Insert Delete Format

AutoFill

Sort & Filter

Find & Select

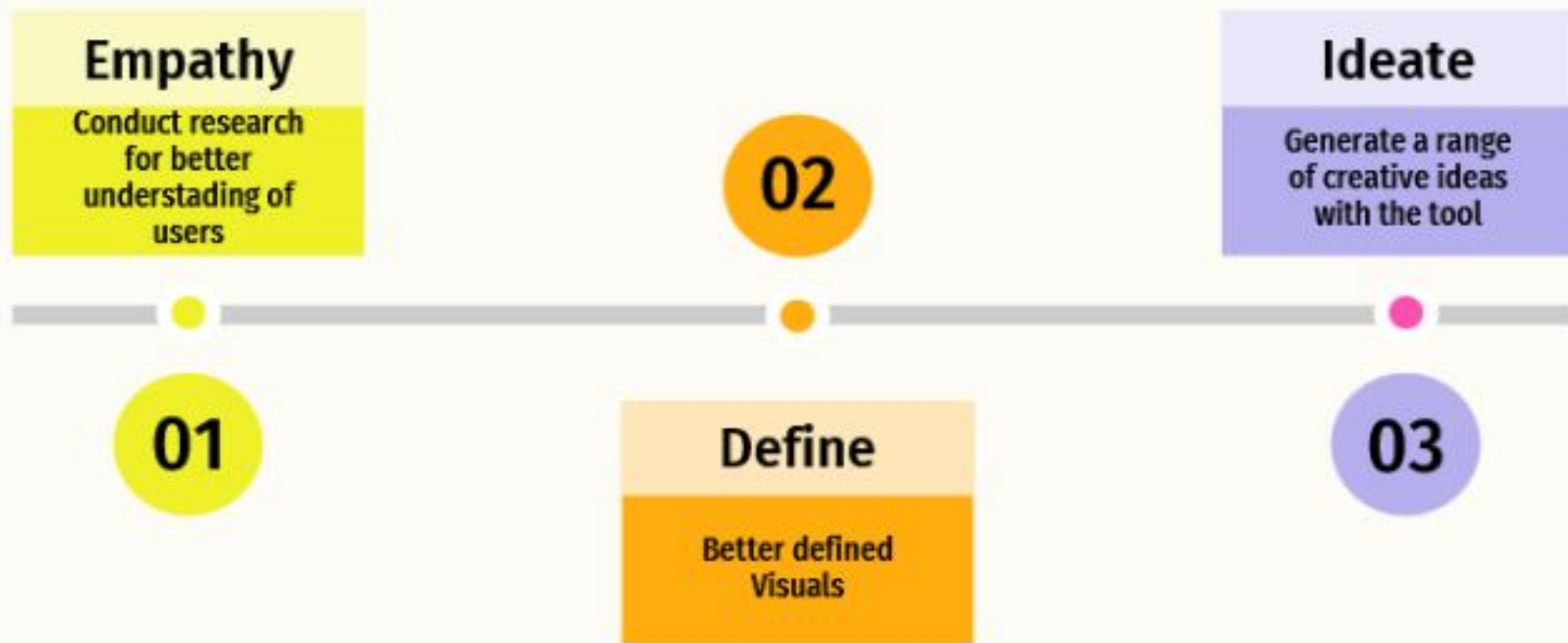
Add-ins

Global YouTube Statistics

Rank	YouTube	subscriber	video view	category	Title	uploads	Country	Abbr:channel_id	video_views	country_id	channel_id	video_views	lowest_m	highest_m	lowest_yr	highest_yr	subscriber	created_yr	created_m	created_d	Gross term	Pa	
1	T-Series	2.43E+08	2.28E+11	Music	T-Series	2062	India	IN	Music	1	1	1.23E+09	564600	9000000	6800000	1.08E+08	300000	2005	Mar	13	28.1.1		
2	YouTube K	1.7E+08	0	Fun & Amusement		1	United States	US	Games	4055256	2670	2824	12	0	0.05	0.04	0.58	nan	2006	Mar	5	88.2.1	
3	MrBeast	1.66E+08	2.88E+10	Entertainment	MrBeast	745	United States	US	Entertainment	48	1	1.33E+09	337900	1400000	4000000	64700000	800000	2012	Feb	20	88.2.1		
4	Cocoroedu	1.62E+08	1.68E+11	Education	Cocoroedu	965	United States	US	Education	2	2	1.48E+09	440800	7800000	5900000	44800000	100000	2005	Sep	1	88.2.1		
5	S&T India	1.58E+08	1.68E+11	Shows	S&T India	128530	India	IN	Entertainment	2	2	2.18E+09	455800	7300000	5500000	87500000	100000	2006	Sep	20	28.1.1		
6	Music	1.12E+08	0	nan	Music	0	nan	nan	Music	4057944	nan	nan	nan	0	0	0	0	nan	2013	Sep	24	nan	na
7	jjy kids Di	1.12E+08	9.32E+10	People & Eppy Kids Di		1111	United States	US	Entertainment	5	0	3.73E+08	182960	2800000	2300000	35100000	nan	2015	May	12	88.2.1		
8	RealDialPa	1.11E+08	2.93E+10	Gaming	RealDialPa	4716	Japan	JP	Entertainment	44	1	4.30E+08	9800	150700	117600	1800000	nan	2010	Apr	28	62.1.1		
9	Like Nasty	1.05E+08	9.05E+10	People & Eppy Nasty		492	Russia	RU	People	620	5	25.48947000	12200	195800	146800	2300000	100000	2016	Jan	24	81.9.1		
10	Vlad and N	98900000	7.72E+10	Entertainment	Vlad and N	574	United States	US	Entertainment	8	5	6.58E+08	145300	2300000	1700000	27900000	600000	2018	Apr	23	88.2.1		
11	Zee Music	98700000	5.70E+10	Music	Zee Music	8568	India	IN	Music	12	2	3.84E+08	200900	3200000	2400000	28000000	110000	2014	Mar	12	28.1.1		
12	WWE	96000000	7.74E+10	Sports	WWE	20127	United States	US	Sports	7	6	1.73E+08	178700	2800000	2100000	34300000	600000	2007	May	11	88.2.1		
13	Gaming	93000000	0	nan	Gaming	0	nan	nan	Games	4057944	nan	nan	nan	0	0	0	0	nan	2013	Dec	15	nan	na
14	BLACKPINK	88800000	3.23E+10	People & Eppy BLACKPINK		562	South Korea	KR	Music	32	1	3.49E+08	126700	2800000	1500000	23800000	700000	2016	Jun	29	94.3.12		
15	Goldmine	88000000	2.43E+10	Fun & Amusement		1	nan	nan	Music	4056562	nan	5663	18	0	0.07	0.05	0.86	nan	2006	Aug	15	nan	na
16	Sony SAB	83000000	1.03E+11	Shows	Sony SAB	21270	India	IN	Entertainment	4	5	7.18E+09	414000	6800000	5000000	79600000	1100000	2007	Aug	4	28.1.1		
17	5-Minute	80100000	2.62E+10	Howto & 5-Minute		1	United States	US	Entertainment	4057901	4297	6281	1	0	0	0	0.05	nan	2020	Jul	27	88.98	
18	BANGTAN	75600000	2.08E+10	Music	BANGTAN	2281	South Korea	KR	Music	112	2	4.16E+08	42500	673200	504900	8130000	400000	2012	Dec	17	94.3.12		
19	sports	75000000	0	nan	sports	3	United States	US	Entertainment	3898522	6266	5295	16	0	0.05	0.05	0.77	nan	2000	Jan	30	88.2.1	
20	Justin Bieber	71800000	4.88E+10	Music	Justin Bieber	289	Canada	CA	Music	38	1	6.17E+08	40300	709200	529800	8500000	100000	2007	Jan	16	88.9.16		
21	HYBE LABEL	71300000	2.82E+10	Music	HYBE LABEL	1327	South Korea	KR	Music	46	3	5.59E+08	140500	2400000	1800000	26700000	900000	2008	Jun	4	94.3.12		
22	Zee TV	70500000	7.31E+10	Entertainment	Zee TV	124204	India	IN	Entertainment	9	6	8.17E+09	426800	6800000	5100000	81400000	900000	2005	Dec	11	28.1.1		
23	Pinkfong	68200000	4.88E+10	Education	Pinkfong	2805	United States	US	Education	23	8	2.47E+08	138000	1800000	1400000	22700000	800000	2011	Dec	14	88.2.1		
24	Caral Rum	68000000	3.68E+10	Music	Caral Rum	2572	Brazil	BR	Music	25	1	7.44E+08	0	0	0	0	nan	2012	Mar	21	53.2.2		
25	ChuChu TV	67400000	4.58E+10	Education	ChuChu TV	633	India	IN	Education	18	7	3.43E+08	105100	1700000	1300000	36000000	500000	2013	Feb	9	28.1.1		
26	Shamoo	65600000	2.88E+10	Music	Shamoo	8502	India	IN	Music	47	8	8.25E+08	62700	1800000	754800	12200000	400000	2010	Jun	11	28.1.1		



YouTube Global Statistics



Sample Dashboard



Proposed Undeveloped Lots FUTURE DEVELOPMENT

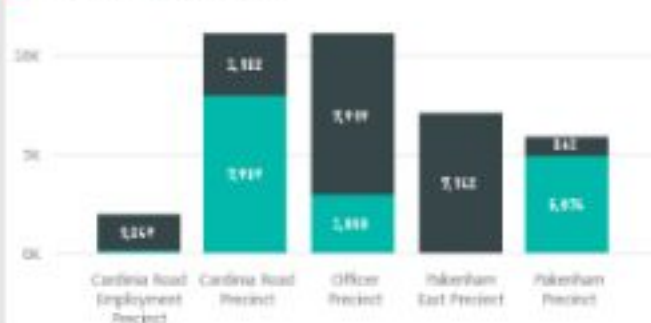
20,960

Developed Lots LOTS WITH TITLES ISSUED



Residential Land Activity BY PRECINCT

Developed Lots Undeveloped Lots



Proposed Undeveloped Lots by Precinct

DISTRIBUTION OF PROPOSED UNDEVELOPED LOTS ACROSS THE SHIRE



Subdivision Lots Lodged

YTD COMPARISON WITH LAST YEAR

66% ↑

Subdivision Lots Issued SOC

YTD COMPARISON WITH LAST YEAR

23% ↑

6
Families Moving to the Shire per Day



New Families Moving to the Shire

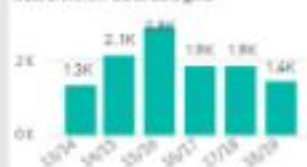
6% ↑

Babies Born in the Shire

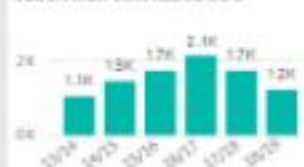
YTD COMPARISON WITH LAST YEAR

-8% ↓

Subdivision Lots Lodged



Subdivision Lots Issued SOC

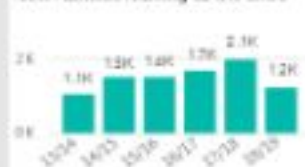


Definitions

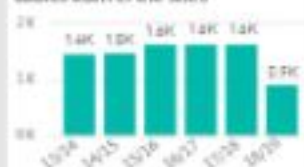
Lodged - Lots in application for new subdivision stages.

SOC - Lots issued a 'Statement of Compliance' and can now be titled.

New Families Moving to the Shire



Babies born in the Shire





Data visualization is the graphical representation of data or information in a visual format, such as charts, graphs, maps, or diagrams. It aims to present complex data in an easy-to-understand and intuitive manner, allowing users to identify patterns, trends, and insights more effectively.

SOME OF THE BEST DATA VISUALIZATION TOOLS



Microsoft Excel



Tableau



Power BI



Quadrigram



D3js



P5js



HighCharts



Google Charts



Processing



WHY POWER BI?

- ✓ **Self-Service Analytics**
- ✓ **Data Discovery and Insights**
- ✓ **Collaboration and Sharing**
- ✓ **Data Connectivity**
- ✓ **Data Transformation and Modeling**
- ✓ **Interactive Visualizations**
- ✓ **Natural Language Queries**
- ✓ **Mobile Accessibility**
- ✓ **Integration with Microsoft Products**
- ✓ **Embedded Analytics**





What is BI?





Visualizations

Feature	Power BI	Microsoft Excel
Primary Purpose	Business Intelligence and Data Visualization	Spreadsheet Application
Data Sources	Connects to various data sources (databases, cloud services, etc.)	Limited to local data or data from other workbooks
Data Modeling	Supports robust data modeling with relationships and DAX formulas	Limited data modeling capabilities
Data Visualization	Offers a wide range of interactive and highly customizable visualizations	Basic visualization options (charts, graphs, pivot tables)
Data Transformations	Powerful data transformation and cleaning capabilities with Power Query	Limited data transformation capabilities
Collaboration	Supports sharing and collaboration through Power BI Service	Limited collaboration features (shared workbooks)
Data Refresh	Can refresh data from multiple sources on a schedule	Requires manual refresh or VBA scripting
Scalability	Designed for large datasets and enterprise-level reporting	Limited scalability for large datasets
Analysis	Advanced data analysis with DAX formulas and measures	Basic data analysis with formulas and pivot tables
Security	Supports row-level security and data governance features	Limited security features
Mobile Access	Native mobile apps for data visualization and exploration	Limited mobile support
Cost	Subscription-based pricing (Power BI Pro, Premium)	One-time purchase or included in Microsoft Office suite

<https://tinyurl.com/Datasets-bi>

Thank You!

