

# Advanced Excel Project

Welcome to my Advanced MS Excel Project Portfolio. I am Ambili AN, a data enthusiast driven by the potential of raw data to tell compelling stories that inform decisions and provide deep insights across various sectors. This portfolio aims to showcase my projects that demonstrate my expertise in using advanced Excel functionalities, including data analysis, visualization, and interpretation tools.

Each project in this portfolio underscores my dedication to data visualization and analytics excellence. The projects featured are based on my real-world experiences at organizations like Emerge, Value Cars and Plumcot IT with adjustments made to respect non-disclosure agreements. Though the data and project titles have been modified to ensure confidentiality, the essence and integrity of the projects are preserved, offering a glimpse into my capabilities and achievements without compromising sensitive information.

As you delve into this document, you will discover detailed accounts of my projects, including the obstacles encountered, the strategies employed to overcome them, and the outcomes realized. My aim is not just to highlight my skillset in Excel but also to share my ongoing journey of learning and growth in the realm of data analytics.

Thank you for exploring my portfolio. I am keen to apply my skills and experiences towards contributing to data-driven endeavours. Should you have any inquiries or are interested in discussing potential collaborations,

Warmest regards,

**Kind Regards**

**Ambili AN**

0274083813 / [ambiliarangathnarayanan@gmail.com](mailto:ambiliarangathnarayanan@gmail.com)

# **Project -1**

## **Project Title: excel dashboard on the Super Store data**

### **Super Store Dashboard**

- ✓ This project consists of an excel dashboard on the Super Store data.
- ✓ Concepts like Excel functions, Pivot Tables, Excel charts, etc were used in this.
- ✓ Along with the dashboard, it presents some business insights in a report created on a separate worksheet.

### **Business Problem**

- ✓ Find 3 Key Findings and 3 Key Solutions to increase the Sales in Super Store.

### **How to read the Excel file?**

- ✓ The first tab of the excel file contains the dashboard which displays various charts and visuals.
- ✓ The second tab of the file has the report with key findings and suggestions.
- ✓ Rest of the tabs have additional information referred by the second tab.

### **The DASHBOARD - SuperStoreDashboard**

#### **The REPORT - Findings**

- ✓ Super Store is giving a lot of discounts on Binders, despite it already being one of their top selling products in all the customer segments across all regions.
- ✓ Super Store is spending too much of their discount budget on their stores in Central region.
- ✓ Stores especially in Southern region are comparatively lacking in discounts.
- ✓ Only one product was sold in 50.65% of the total orders.
- ✓ Delivery duration in Central region is comparatively slow. Average delivery in Central region takes 0.21 days more for Home Office consumers than overall delivery duration average for the same.

## Suggestions

- ✓ Discounts should be reduced from Binders (Sub-category) or Office supplies (Category) in general, as they have decent enough sales.
- ✓ Discount budget should be disbursed to the stores in Southern region for sales spree to attract customer attention.
- ✓ In case of their online stores, investment shall be made on machine learning techniques so that people buying only one product from a category shall be recommended with other related products from that same category.
- ✓ In case of offline stores, Super Store shall invest in Planograms (Product Display).
- ✓ More information about how planograms leading to improved sales can be found in the referred link.
- ✓ Delivery duration should be reduced in the stores in Central region by introducing ship mode upgrades wherever it's possible.
- ✓ Decreased delivery duration may lead to increase in sales.

## Screenshots of the Project 1

## Customising Chart

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

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**Clipboard:** Paste, Cut, Copy, Format Painter

**Font:** Calibri, 11, Bold, Italic, Underline, Paragraph, Font Color, Background Color

**Alignment:** Wrap Text, Merge & Center, Left, Right, Center, Justify, Indent, Decrease Indent, Increase Indent

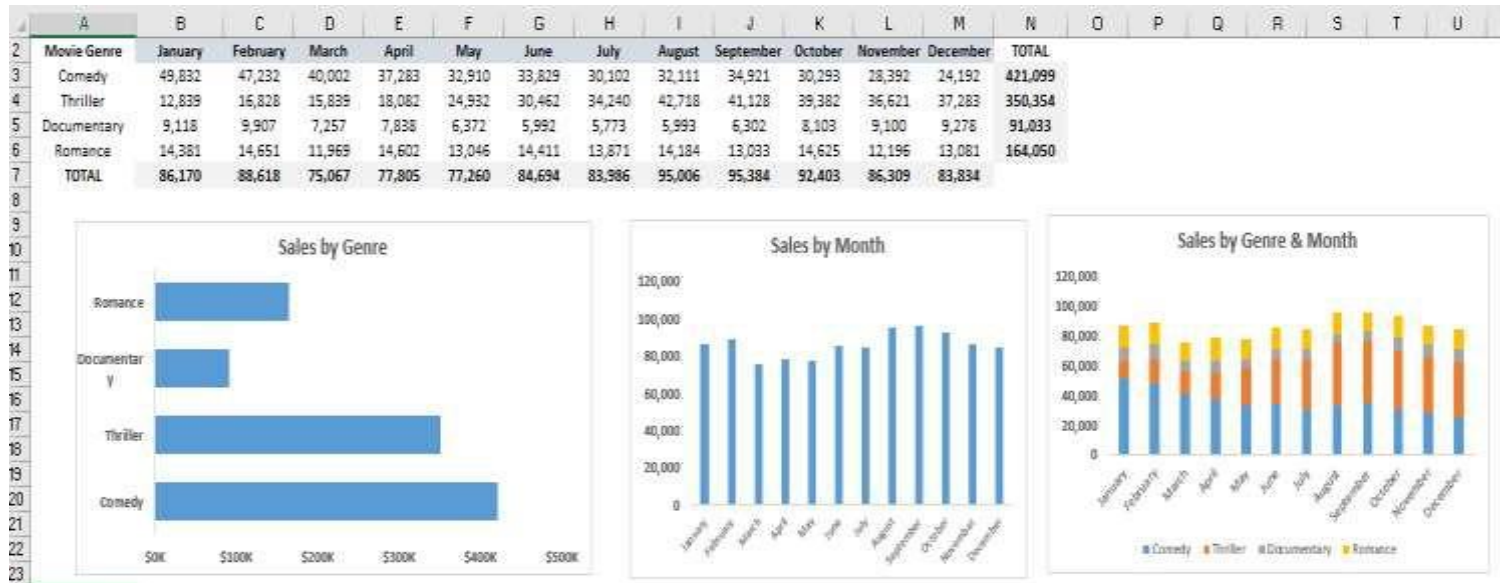
**Number:** General, Accounting, Currency, Date, Percentage, Fraction, Decimals, Thousands Separator, Rounding

**Styles:** Conditional Formatting, Format as Table, Cell Styles

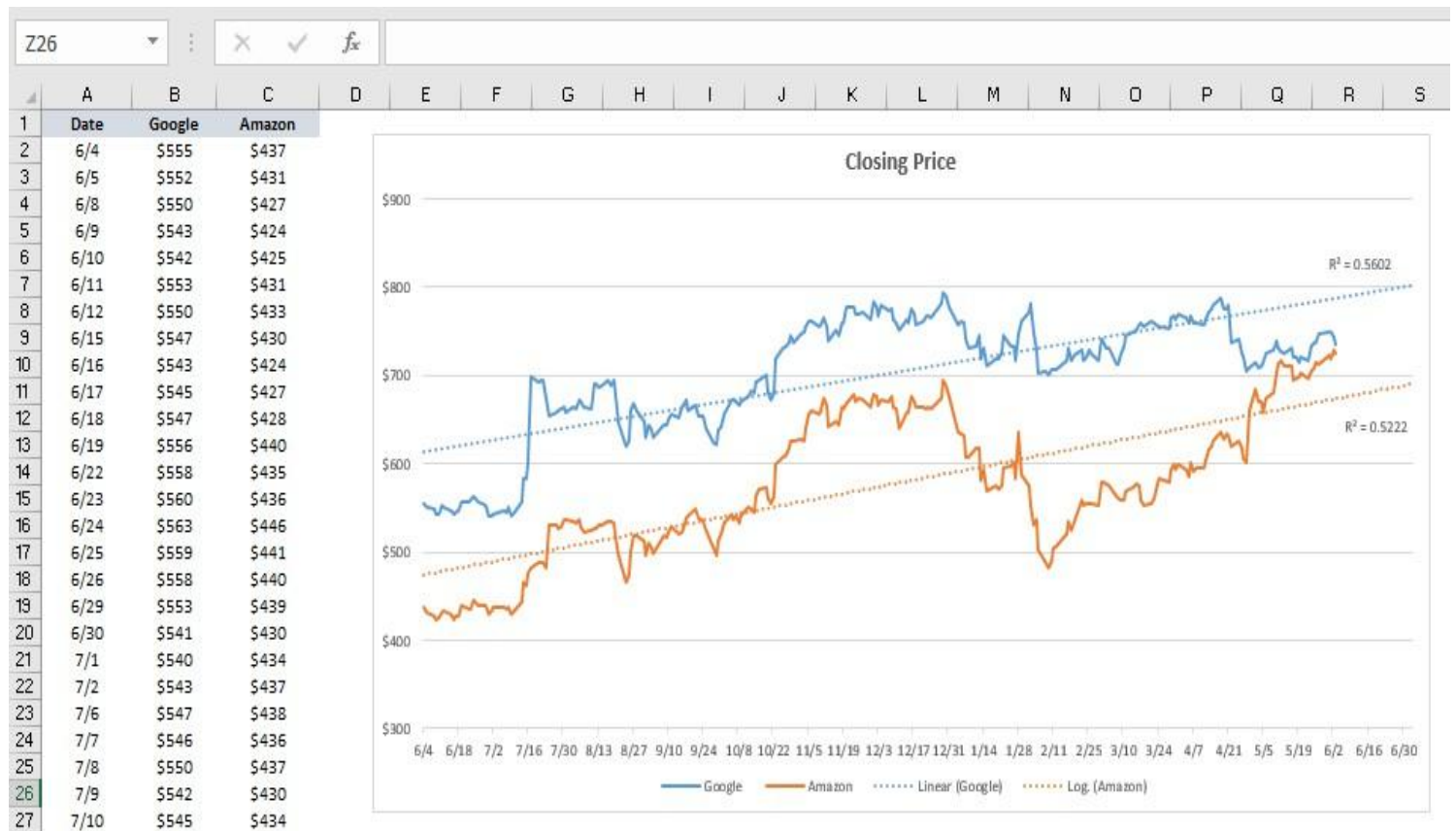
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	A	B	C	D	E	F	G	H
1	<b>Month</b>	<b>Mobile Spend</b>	<b>Desktop Spend</b>	<b>Total Spend</b>	<b>Clicks</b>	<b>\$/Click</b>	<b>Transactions</b>	<b>Transaction %</b>
2	January	\$359,085	\$438,881	\$797,966	568,213	\$1.40	1,064	0.19%
3	February	\$295,945	\$308,025	\$603,970	486,398	\$1.24	984	0.20%
4	March	\$228,830	\$291,239	\$520,069	459,937	\$1.13	936	0.20%
5	April	\$376,751	\$347,770	\$724,521	481,632	\$1.50	990	0.21%
6	May	\$343,227	\$343,227	\$686,453	478,822	\$1.43	886	0.19%
7	June	\$164,481	\$227,141	\$391,622	332,313	\$1.18	711	0.21%
8	July	\$161,304	\$263,180	\$424,484	289,154	\$1.47	722	0.25%
9	August	\$127,173	\$236,178	\$363,350	224,080	\$1.62	558	0.25%
10	September	\$111,114	\$215,692	\$326,806	220,951	\$1.48	464	0.21%
11	October	\$174,805	\$273,414	\$448,219	268,924	\$1.67	508	0.19%
12	November	\$210,181	\$267,503	\$477,684	295,562	\$1.62	582	0.20%
13	December	\$264,672	\$310,702	\$575,375	330,514	\$1.74	591	0.18%

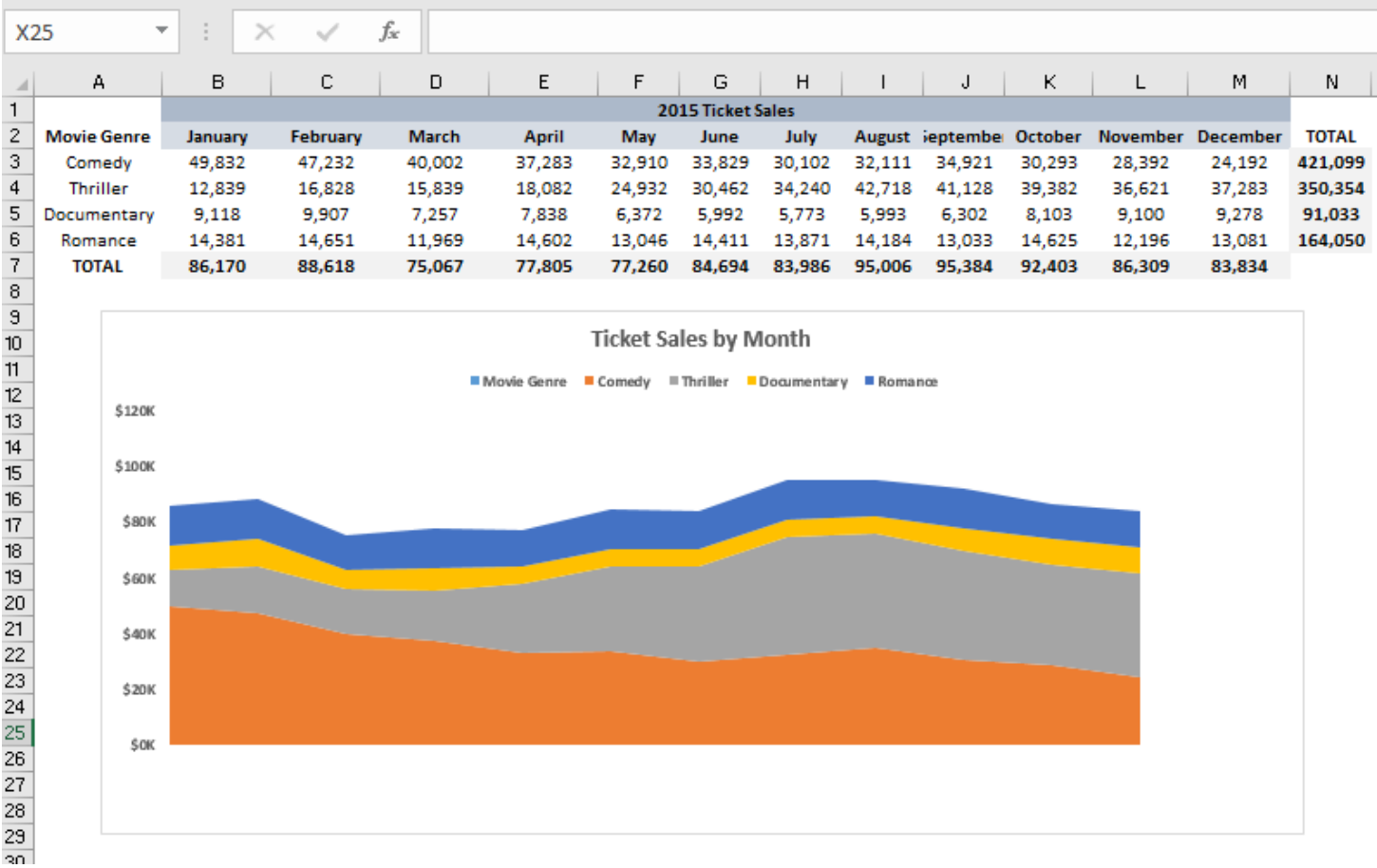
## Bar & Column Charts



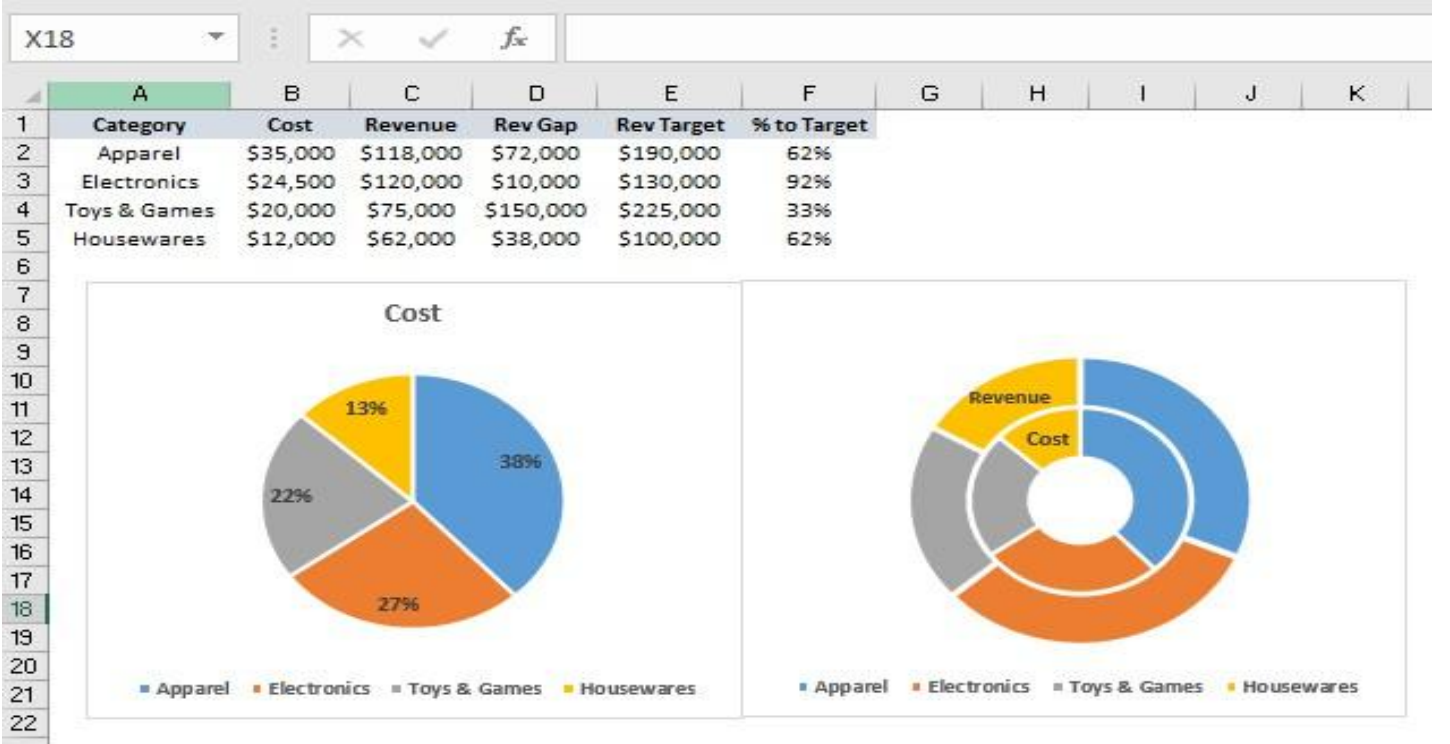
## Line Charts



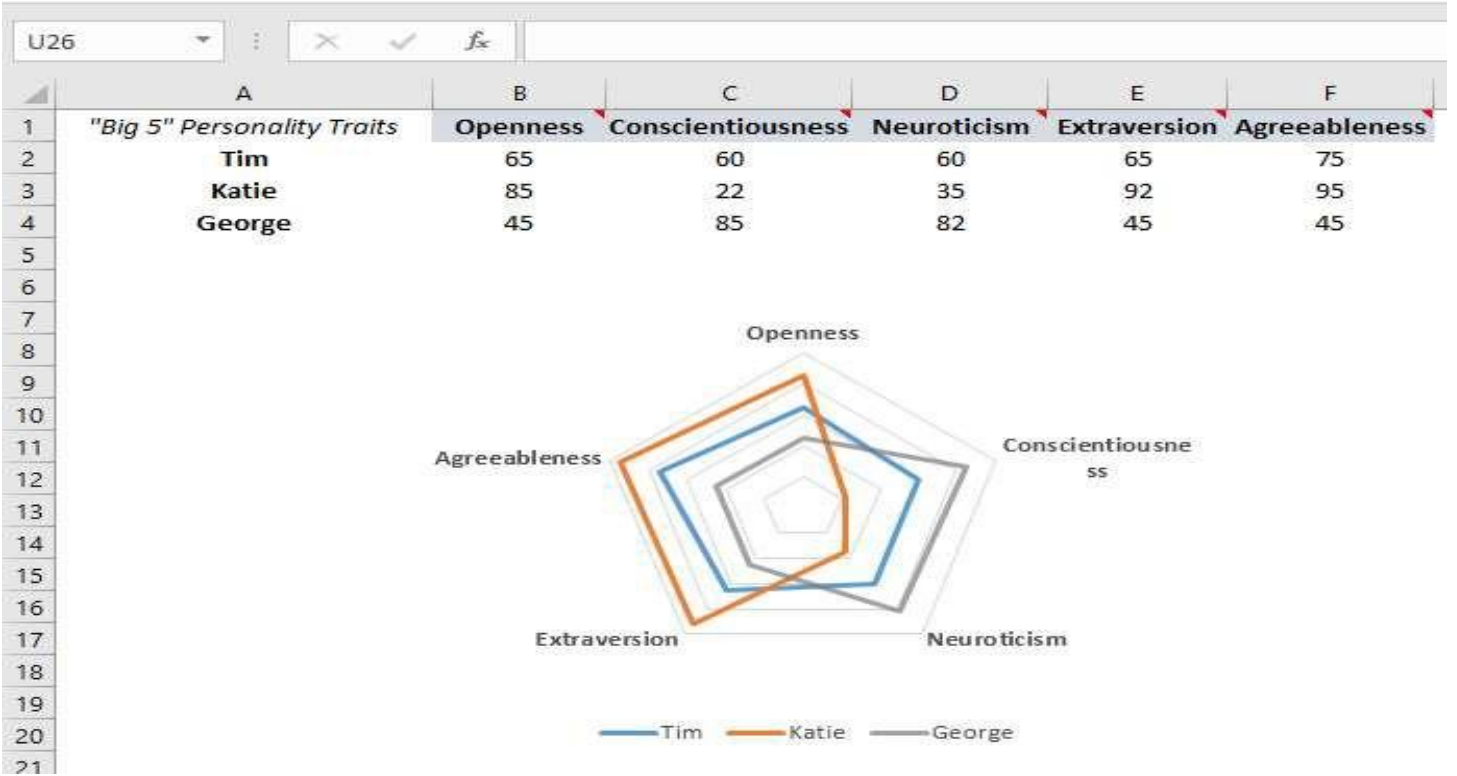
Line Charts



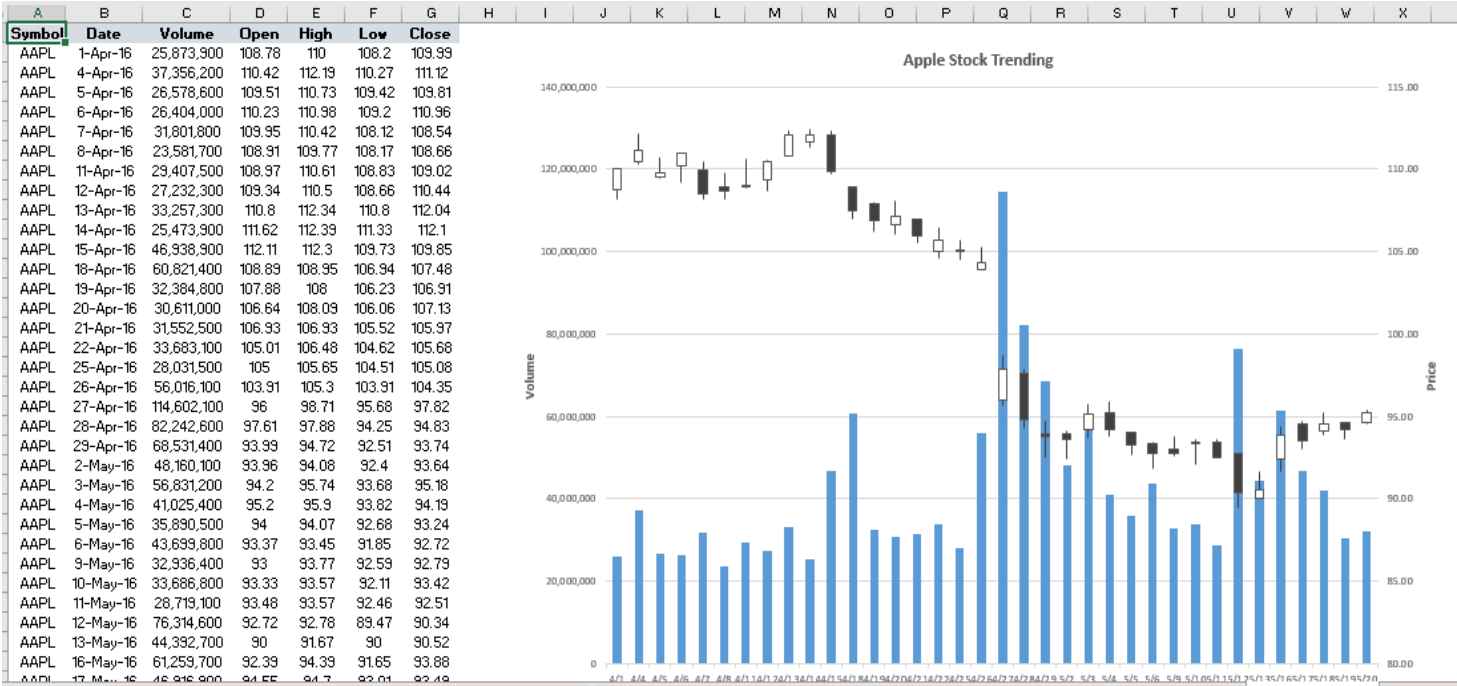
Pie & Donut Charts



Radar Charts

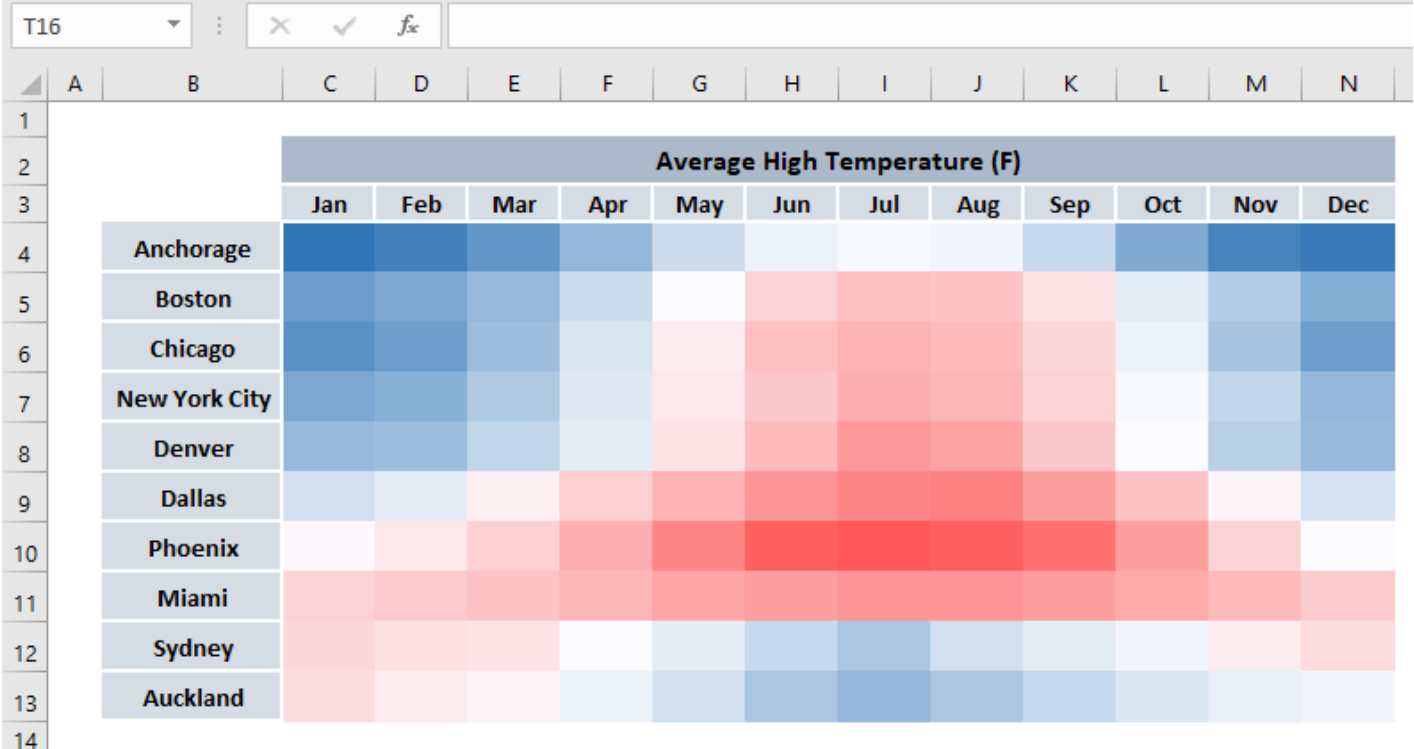


Stock Charts

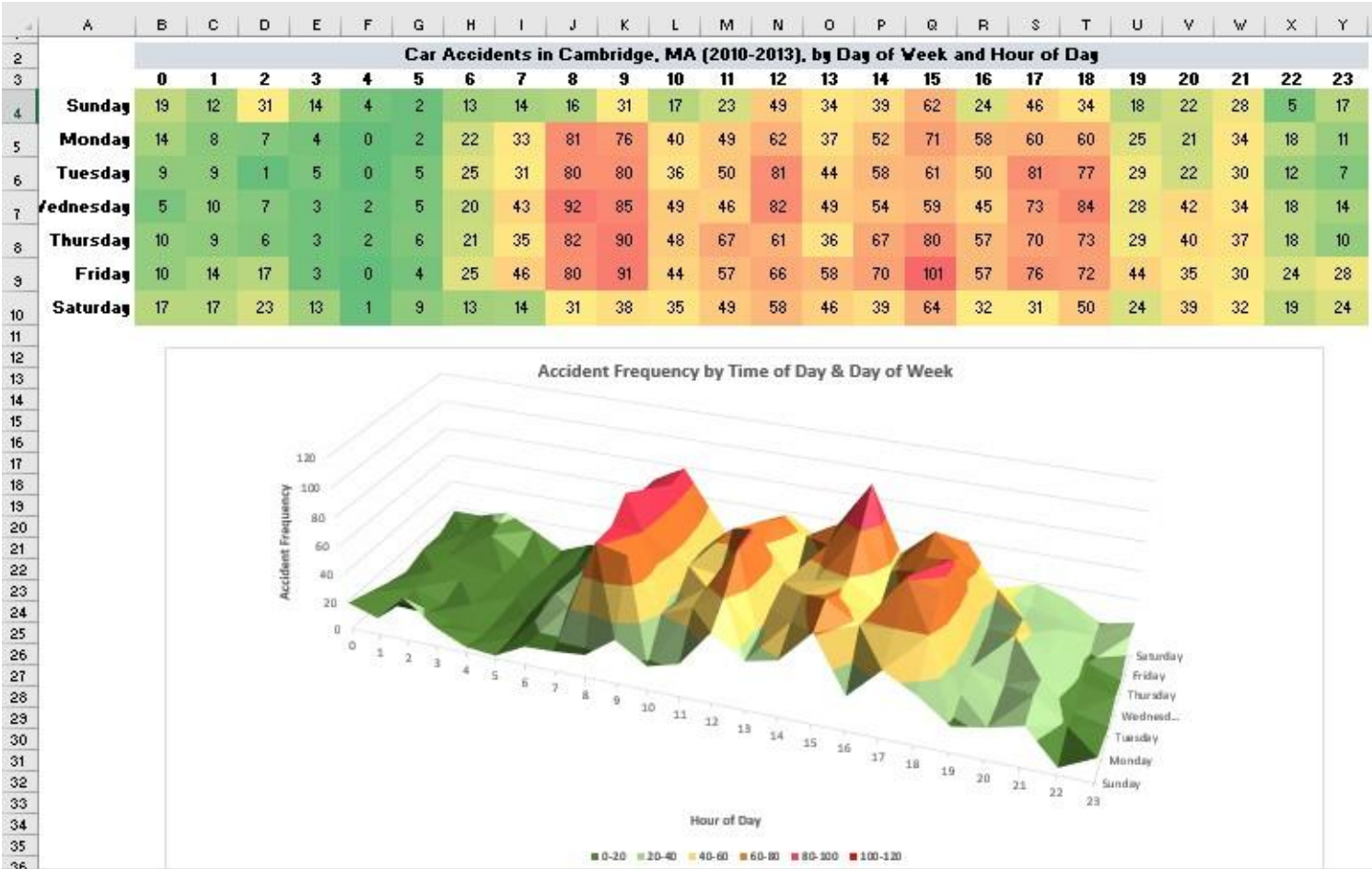




Heat Map Charts



Surface Maps



## Combo Charts

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	Month	Mobile Spend	Spent	Top Spent	Total Spend	Clicks	\$/Click	Transactions	Transaction %													
2	January	\$359,085	\$438,881	\$797,966	568,213	\$1.40	1,064	0.19%		January												
3	February	\$295,945	\$308,025	\$603,970	486,398	\$1.24	984	0.20%		February												
4	March	\$228,830	\$291,239	\$520,069	459,937	\$1.13	936	0.20%		March												
5	April	\$376,751	\$347,770	\$724,521	481,632	\$1.50	990	0.21%		April												
6	May	\$343,227	\$343,227	\$686,453	478,822	\$1.43	886	0.19%		May												
7	June	\$164,481	\$227,141	\$391,622	332,313	\$1.18	711	0.21%		June												
8	July	\$161,304	\$263,180	\$424,484	289,154	\$1.47	722	0.25%		July												
9	August	\$127,173	\$236,178	\$363,350	224,080	\$1.62	558	0.25%		August												
10	September	\$111,114	\$215,692	\$326,806	220,951	\$1.48	464	0.21%		September												
11	October	\$174,805	\$273,414	\$448,219	268,924	\$1.67	508	0.19%		October												
12	November	\$210,181	\$267,503	\$477,684	295,562	\$1.62	582	0.20%		November												
13	December	\$264,672	\$310,702	\$575,375	330,514	\$1.74	591	0.18%		December												
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38																						

Clicks

Cost per Click

Month	Clicks	Cost per Click
January	568,213	\$1.40
February	486,398	\$1.24
March	459,937	\$1.13
April	481,632	\$1.50
May	478,822	\$1.43
June	332,313	\$1.18
July	289,154	\$1.47
August	224,080	\$1.62
September	220,951	\$1.48
October	268,924	\$1.67
November	295,562	\$1.62
December	330,514	\$1.74

Transactions

Transaction %

Month	Transactions	Transaction %
January	1,064	0.19%
February	984	0.20%
March	936	0.20%
April	990	0.21%
May	886	0.19%
June	711	0.21%
July	722	0.25%
August	558	0.25%
September	464	0.21%
October	508	0.19%
November	582	0.20%
December	591	0.18%

## Spark Lines











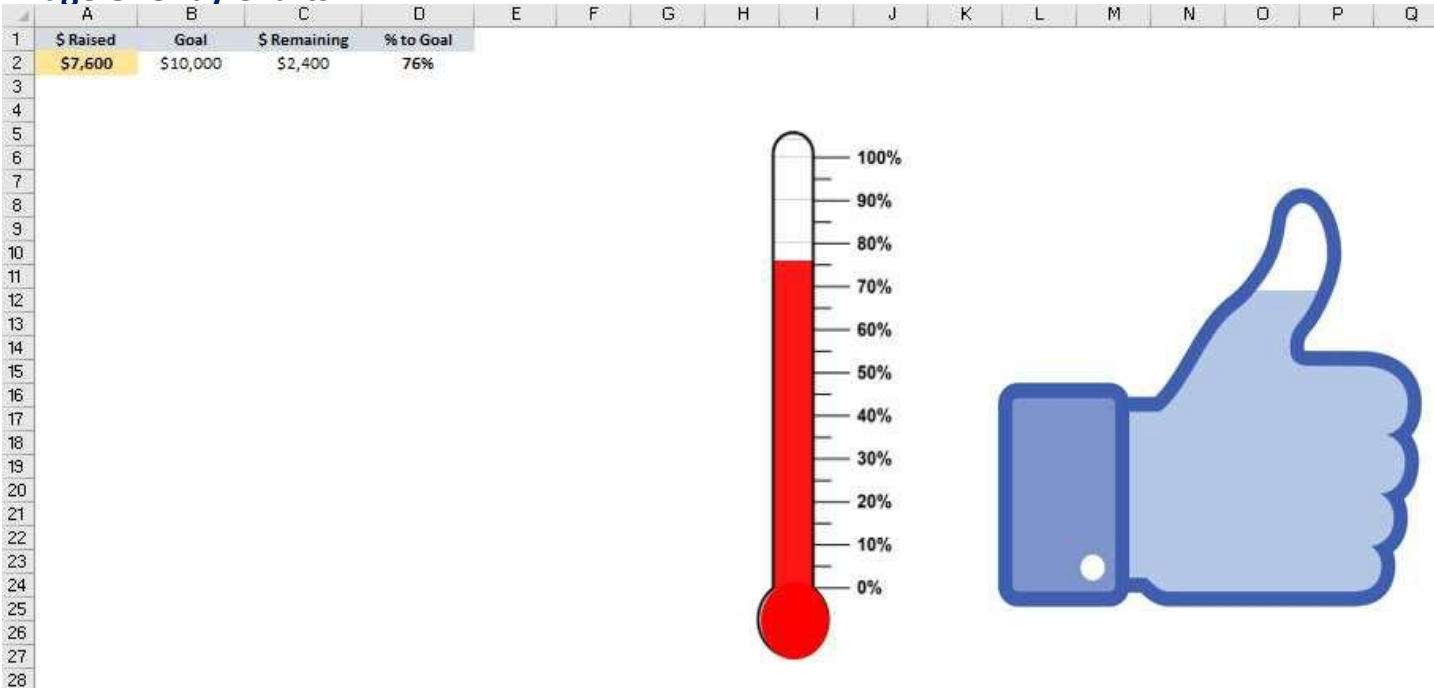
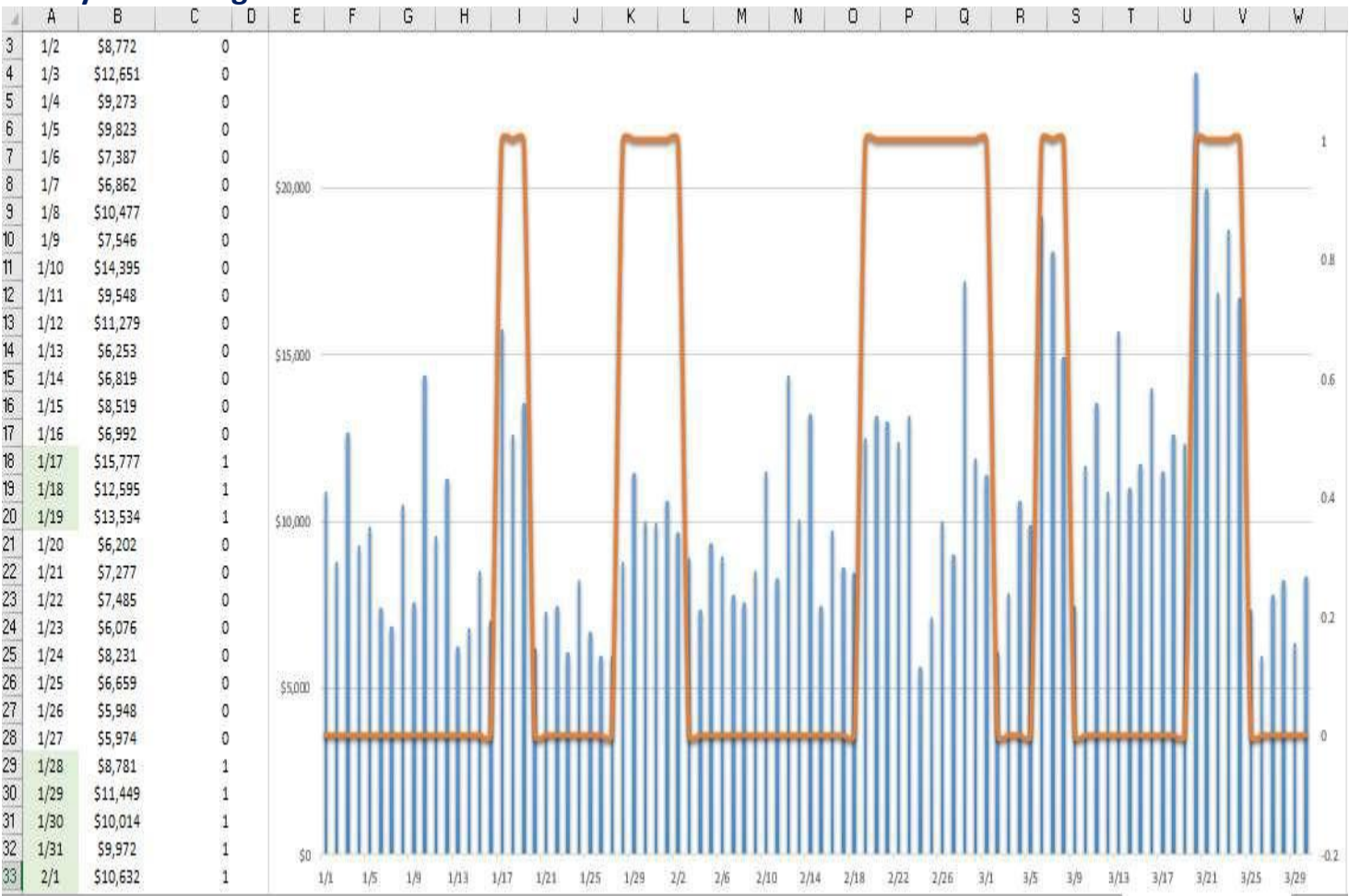
S20														
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1														
2	Average High Temperature (F)													
3		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
4	Anchorage	23	27	34	44	56	63	65	64	55	40	28	25	
5	Boston	36	39	45	56	66	76	81	80	72	61	51	41	
6	Chicago	32	36	46	59	70	81	84	82	75	63	48	36	
7	New York City	39	42	50	60	71	79	85	83	76	65	54	44	
8	Denver	45	46	54	61	72	82	90	88	79	66	52	45	
9	Dallas	57	61	69	77	84	91	95	96	89	80	68	58	
10	Phoenix	67	71	77	85	95	104	106	104	100	89	76	66	
11	Miami	76	78	80	83	87	89	91	91	89	86	82	78	
12	Sydney	75	73	72	66	61	55	49	57	61	64	70	74	
13	Auckland	74	70	68	63	57	49	44	49	55	59	62	64	
14														



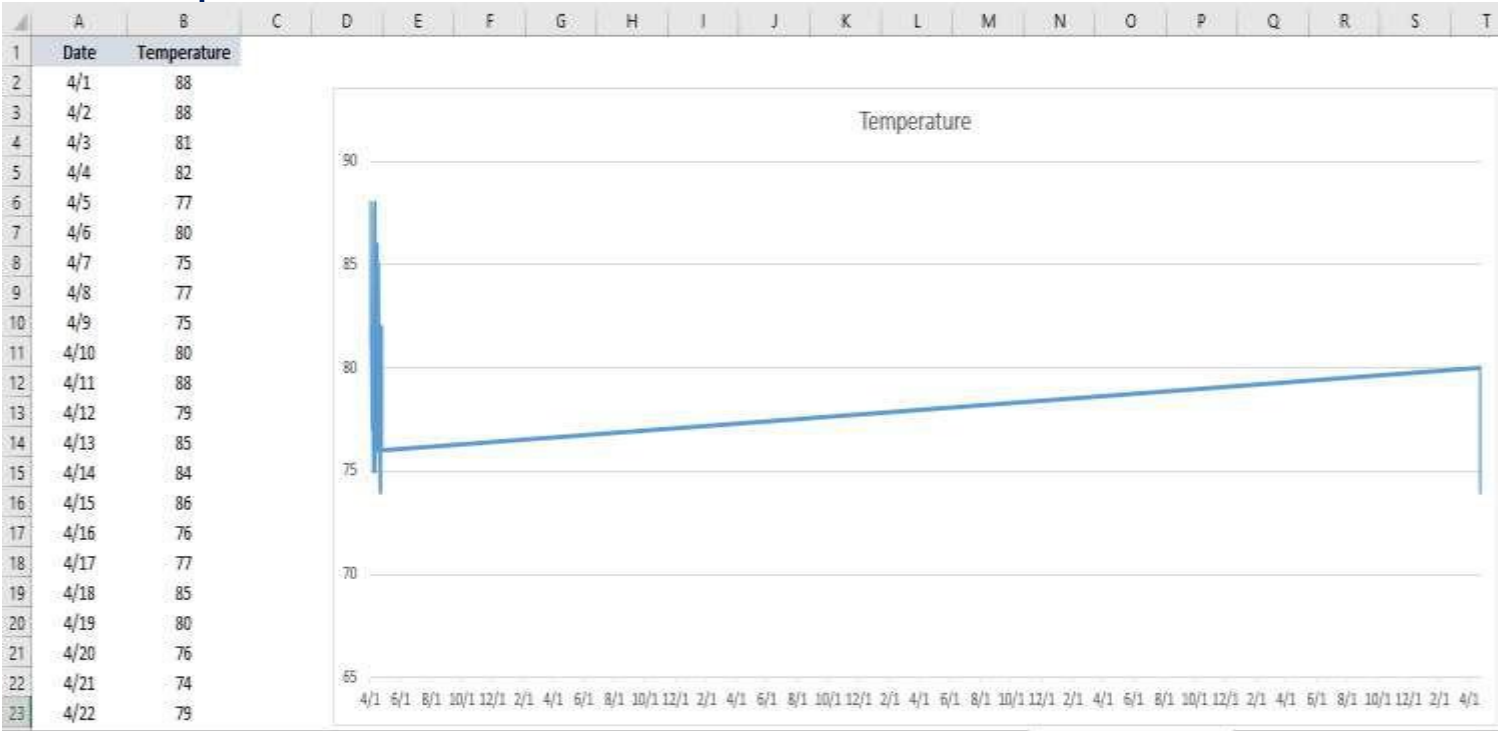
Image Overlay Charts



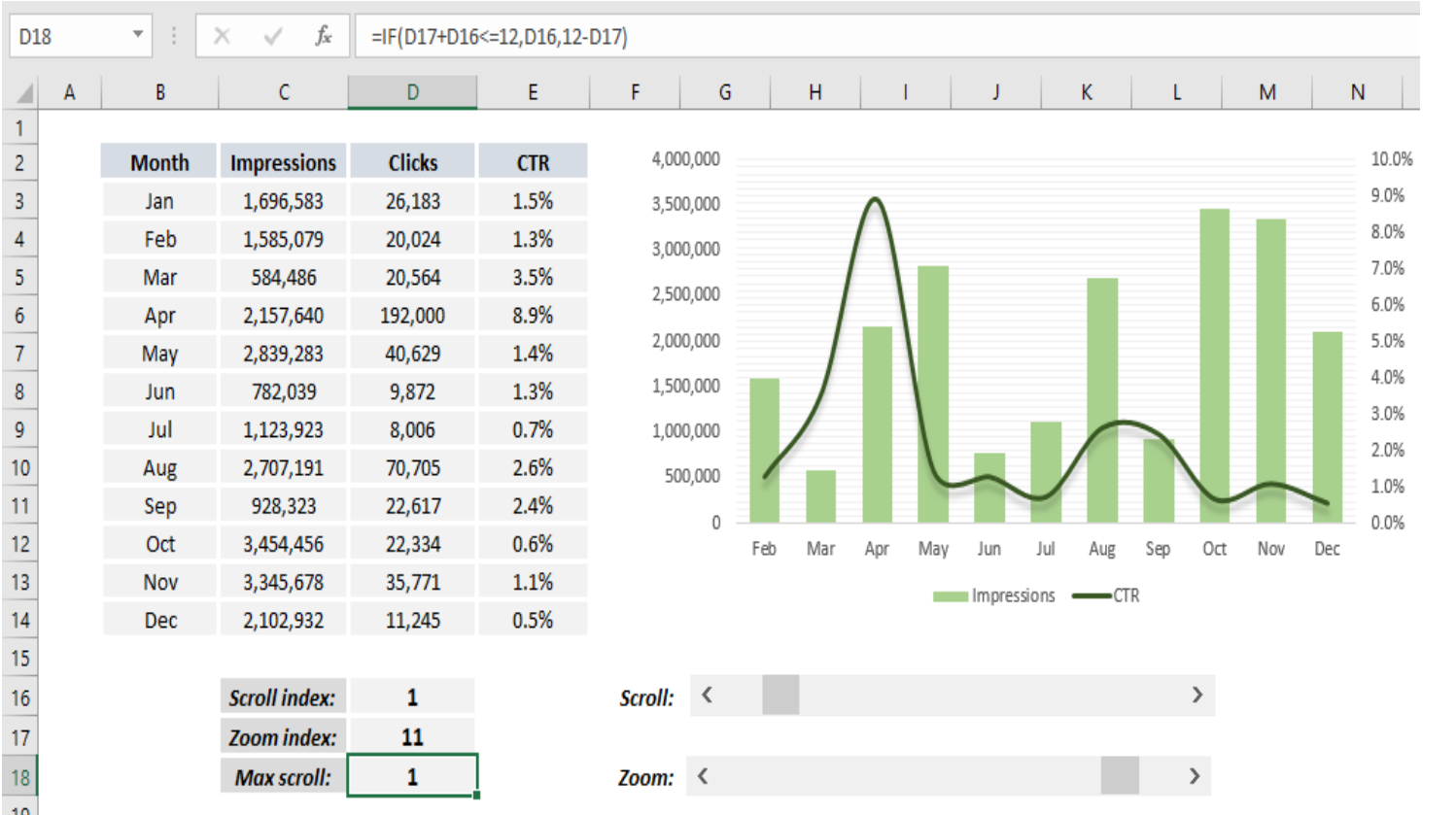
Binary Date Range chart



Automatic Update chart



Scroll & Zoom Chart



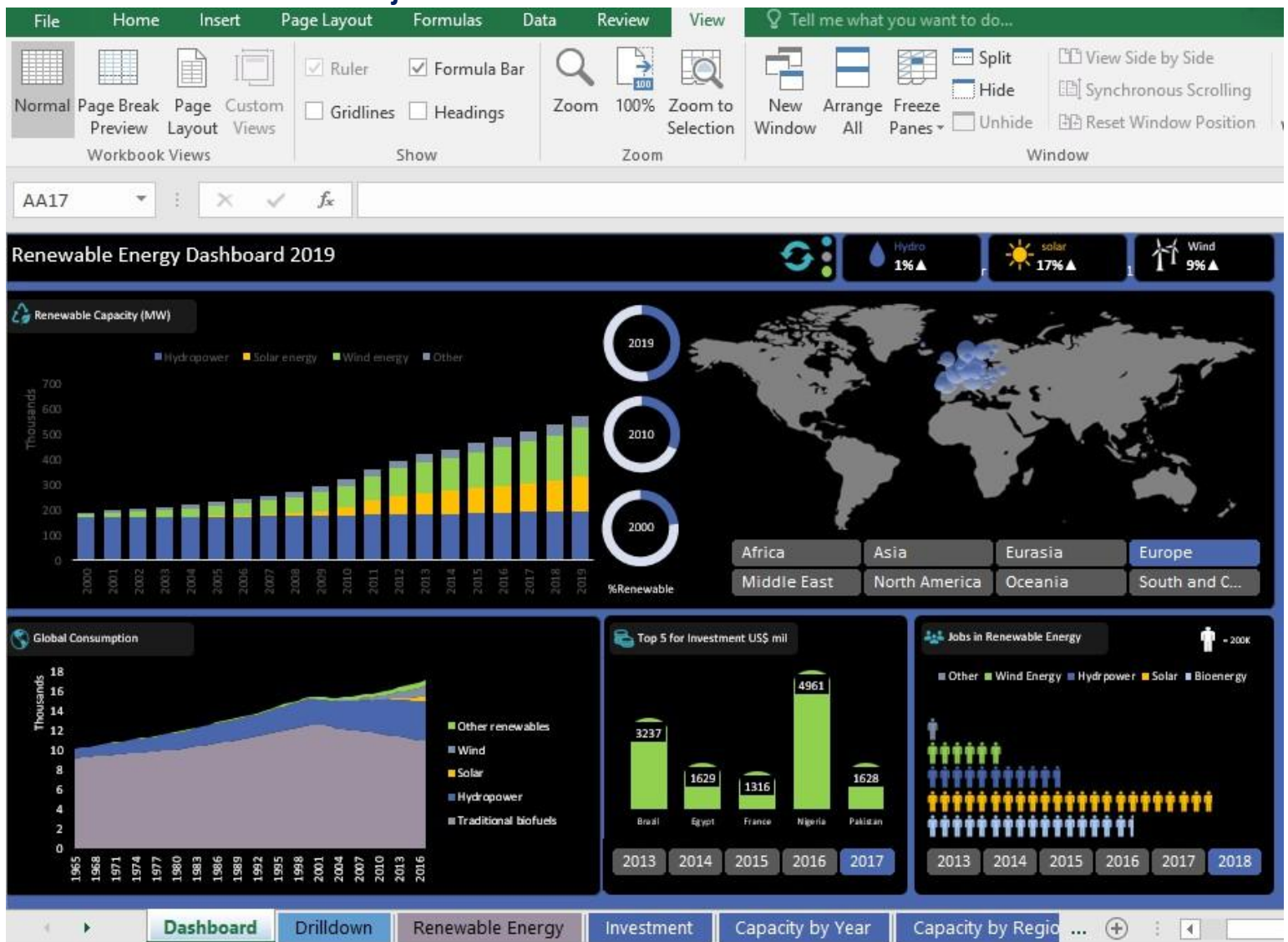
	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
2	Select Player:		Alex Gordon													
4		AB	H	AVG	R	2B	3B	HR	RBI	SB	CS	SB%	BB	K	K/BB	
5	2010	242	52	0.215	34	10	0	8	20	1	5	17%	34	62	1.8	
6	2011	611	185	0.303	101	45	4	23	87	17	8	68%	67	133	2.1	
7	2012	642	189	0.294	93	51	5	14	72	10	5	67%	73	140	1.9	
8	2013	633	168	0.265	90	27	6	20	81	11	3	79%	52	141	2.7	
9	2014	563	150	0.266	87	34	1	19	74	12	3	80%	65	126	1.9	
10	2015	354	96	0.271	40	18	0	13	48	2	5	29%	49	92	1.9	
12	Total:	3,045	840	0.276	445	185	16	97	382	53	29	65%	340	700	2.1	
14	Select Metric 1:		RBI		Select Metric 2:		AVG									
15																
16																
17																

# Project-2: Renewable Energy Dashboard

## Dashboard

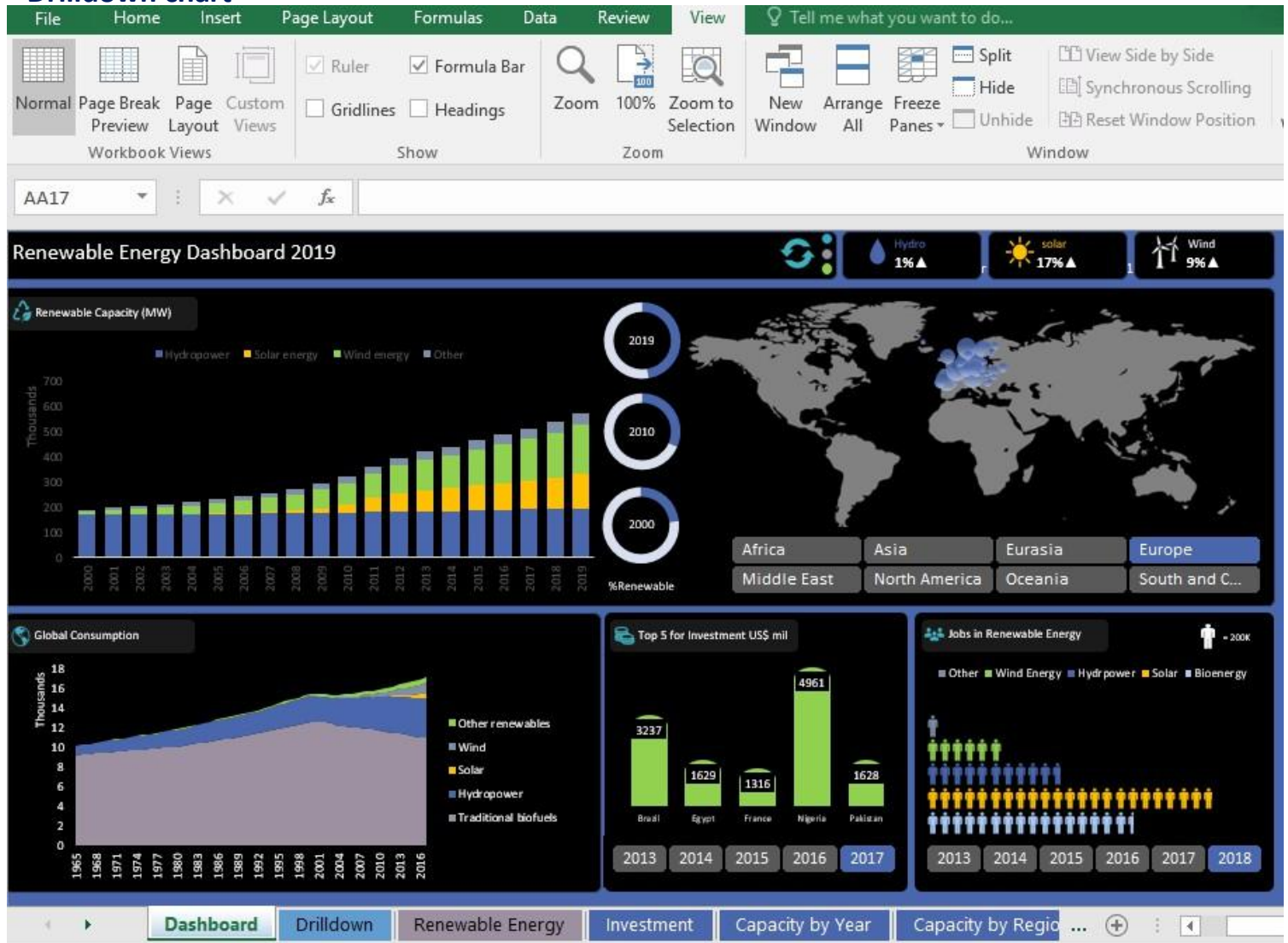
- ✓ This Dashboard contains visualization about...
- ✓ Renewable capacity(MW) by different Region
- ✓ Global Consumption of Renewable Energy
- ✓ Top 5 Country for investment in different year
- ✓ Jobs in Renewable Energy in different year
- ✓ % of Renewable and non-renewable energy
- ✓ Capacity Trends by Top 5 Country in Region
- ✓ Energy generation of Renewable & Non-Renewable Energy Region-wise.

## Screenshots of Project - 2





## Drilldown chart



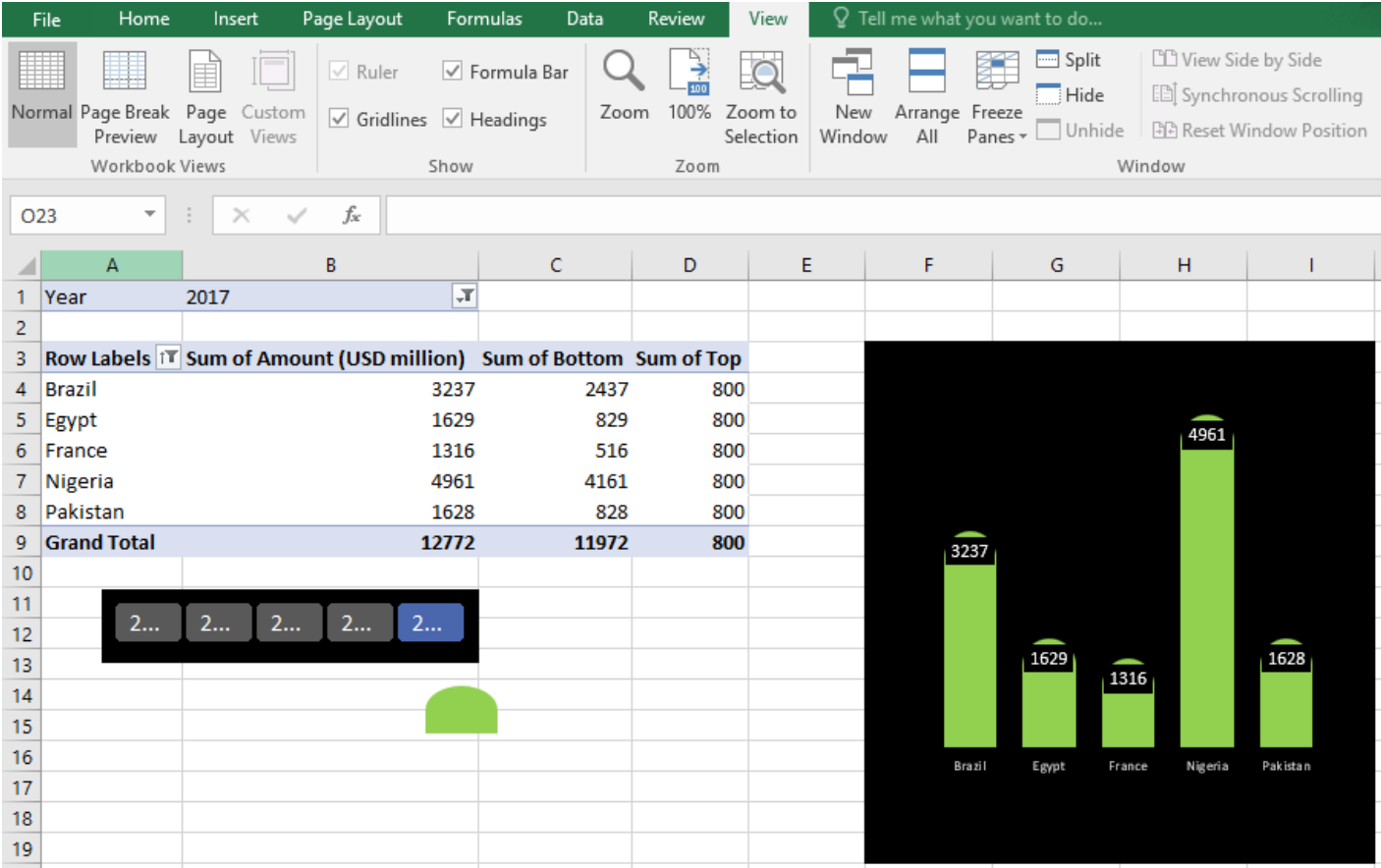
File Home Insert Page Layout Formulas Data Review View Tell me what you want to do...

Normal Page Break Preview Page Custom Workbook Views Ruler Formula Bar Gridlines Headings Show Zoom 100% Zoom to Selection New Window Arrange All Freeze Panes Split Hide Unhide View Side by Side Synchronous Scrolling Reset Window Position Window Switch Windows Macros

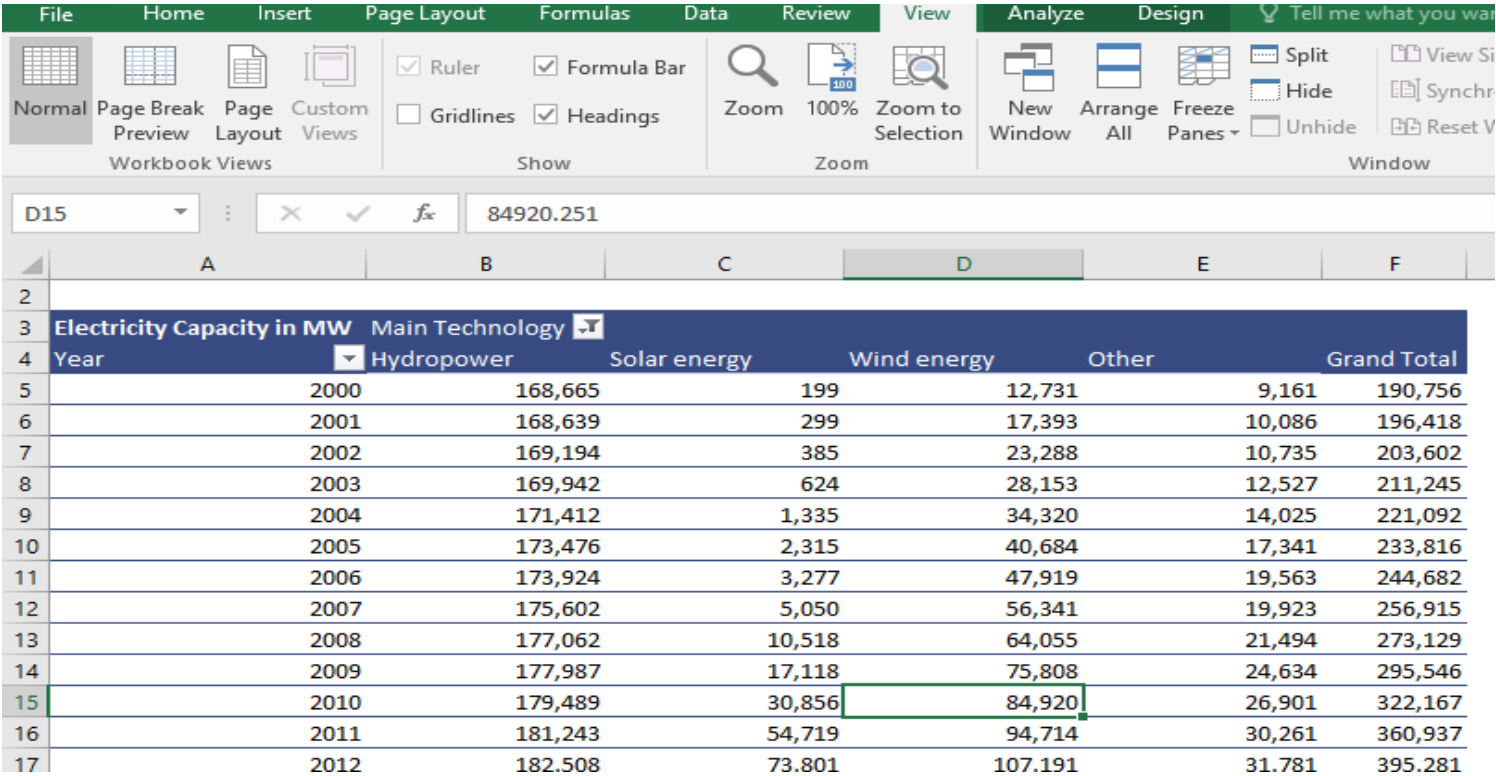
M7

	A	B	C	D	E	F	G	H	I
1	Renewable Energy Capacity and Generation								
2									
3	Region	Country	ISO Code	RE or Non-RE	Main Technology	Technologies	Year	Electricity Capacity (MW)	Electricity Generation (GW)
4	Africa	Algeria	DZA	Non-Renewable	Fossil fuels	Fossil fuels	2000	5630.01	24954.17
5	Africa	Algeria	DZA	Non-Renewable	Fossil fuels	Fossil fuels	2001	5626.5	26187.5
6	Africa	Algeria	DZA	Non-Renewable	Fossil fuels	Fossil fuels	2002	6062.01	27345.3
7	Africa	Algeria	DZA	Non-Renewable	Fossil fuels	Fossil fuels	2003	6184.24	28927.1
8	Africa	Algeria	DZA	Non-Renewable	Fossil fuels	Fossil fuels	2004	6476.24	30633.6
9	Africa	Algeria	DZA	Non-Renewable	Fossil fuels	Fossil fuels	2005	7215.64	32970
10	Africa	Algeria	DZA	Non-Renewable	Fossil fuels	Fossil fuels	2006	7656.88	34704.313
11	Africa	Algeria	DZA	Non-Renewable	Fossil fuels	Fossil fuels	2007	8161.4	36724.781
12	Africa	Algeria	DZA	Non-Renewable	Fossil fuels	Fossil fuels	2008	8272.27	39703.234

Investment



Capacity by years





Capacity by Region

FileHomeInsertPage LayoutFormulasDataReviewViewTell me what you want to do...

Normal

Page Break Preview

Page Layout

Custom Views

Workbook Views

☒ Ruler

☒ Gridlines

☒ Formula Bar

☒ Headings

Show

Zoom

100%

Zoom to Selection

New Window

Arrange All

Freeze Panes

Split


Hide

Unhide

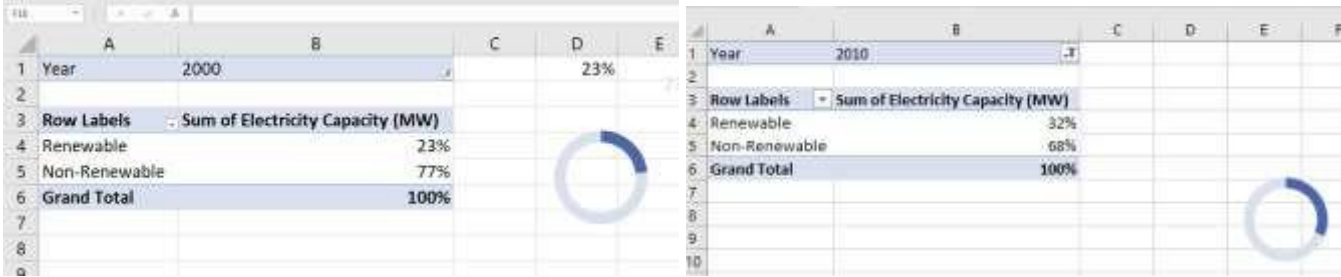
C3

Capacity by Region with Latitude and Longitude

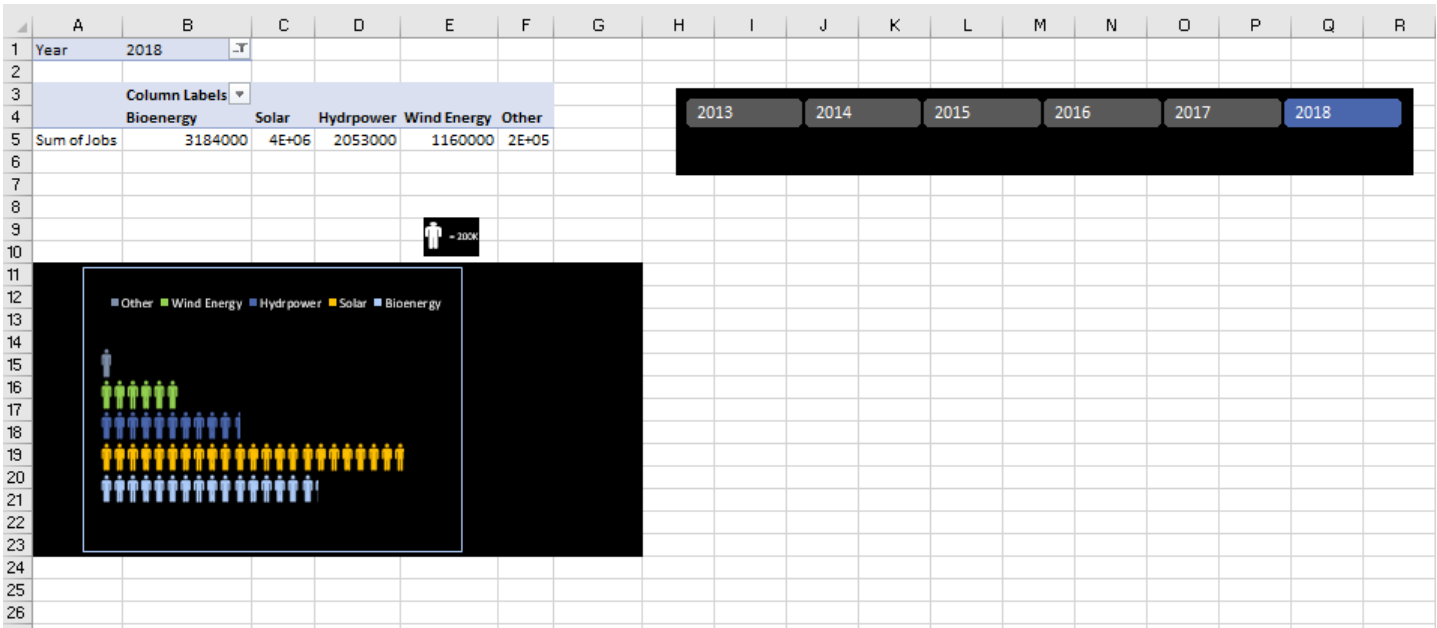
E5		=IFERROR(VLOOKUP(D5,Coordinates,4,0),0)																	
1	Region	Europe																	
2	RE or Non-RE	Renewable																	
3																			
4	Row Labels	Sum of Electricity Capacity (MW)	Country	Lat	Long	Capacity MW													
5	DEU	1,209,021	DEU	51.165691	10.4515	1209021	Germany												
6	ESP	742,319	ESP	40.463667	-3.7492	742319	Spain												
7	ITA	682,625	ITA	41.87194	12.5674	682625	Italy												
8	FRA	677,161	FRA	46.227638	2.21375	677161	France												
9	NOR	612,627	NOR	60.472024	8.46895	612627	Norway												
10	SWE	461,334	SWE	60.128161	18.6435	461334	Sweden												
11	GBR	328,949	GBR	55.378051	-3.436	328949	United Kingdom												
12	AUT	321,832	AUT	47.516231	14.5501	321832	Austria												
13	CHE	286,919	CHE	46.818188	8.22751	286919	Switzerland												
14	PRT	184,690	PRT	39.399672	-8.2245	184690	Portugal												
15	ROU	162,801	ROU	45.943161	24.9668	162801	Romania												
16	GRC	114,011	GRC	39.074208	21.8249	114011	Greece												
17	UKR	112,540	UKR	48.379433	31.1656	112540	Ukraine												
18	FIN	112,255	FIN	61.92411	25.7482	112255	Finland												
19	DNK	106,002	DNK	56.26392	9.50179	106002	Denmark												
20	NLD	78,533	NLD	52.132633	5.29127	78532.9	Netherlands												
21	POL	71,856	POL	51.919438	19.1451	71855.7	Poland												
22	BEL	69,745	BEL	50.503887	4.46994	69744.5	Belgium												
23	BGR	56,904	BGR	42.733883	25.4858	56903.5	Bulgaria												
24	CZE	53,510	CZE	0	0	0													
25	SRB	47,220	SRB	44.016521	21.0059	47220.4	Serbia												
26	HRV	47,127	HRV	45.1	15.2	47127.3	Croatia												
27	ISL	43,327	ISL	64.963051	-19.021	43326.5	Iceland												
28	SVK	39,845	SVK	48.669026	19.699	39844.5	Slovakia												
29	ISL	43,327	ISL	64.963051	-19.021	43326.5	Iceland												



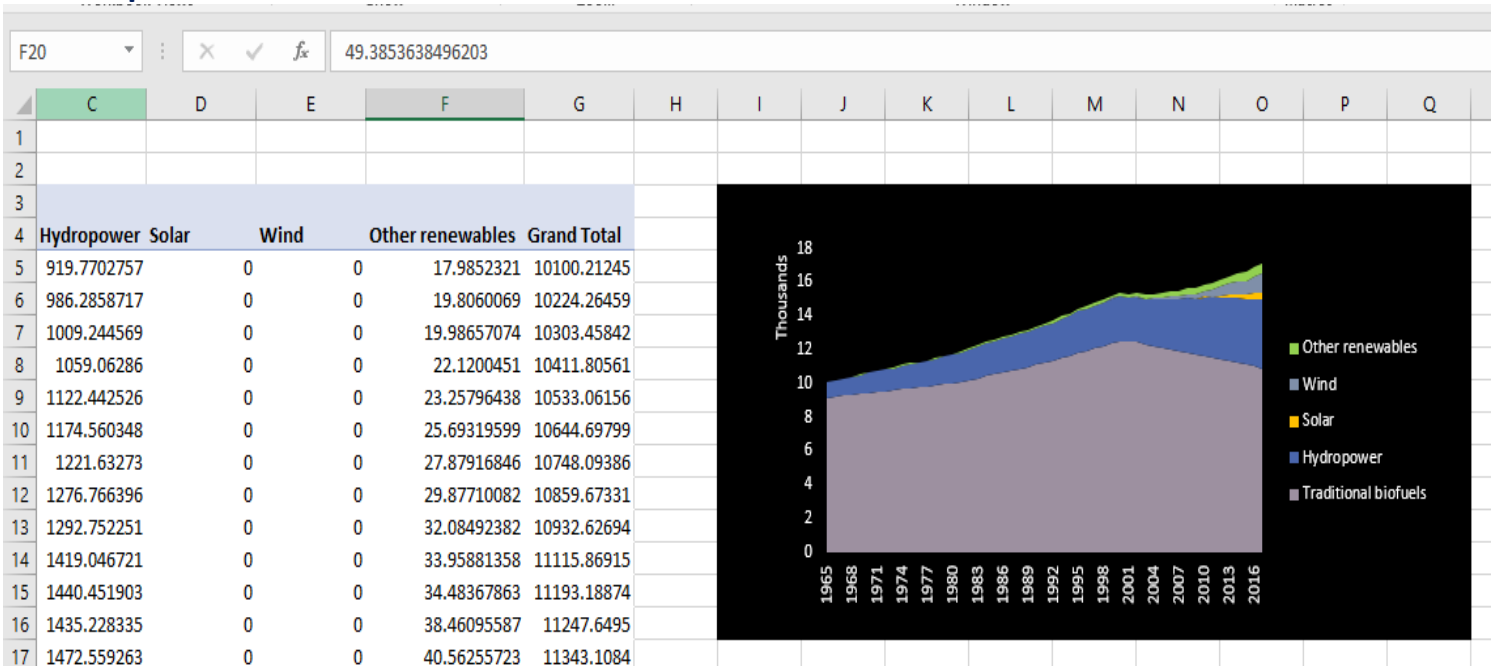
Year Wise



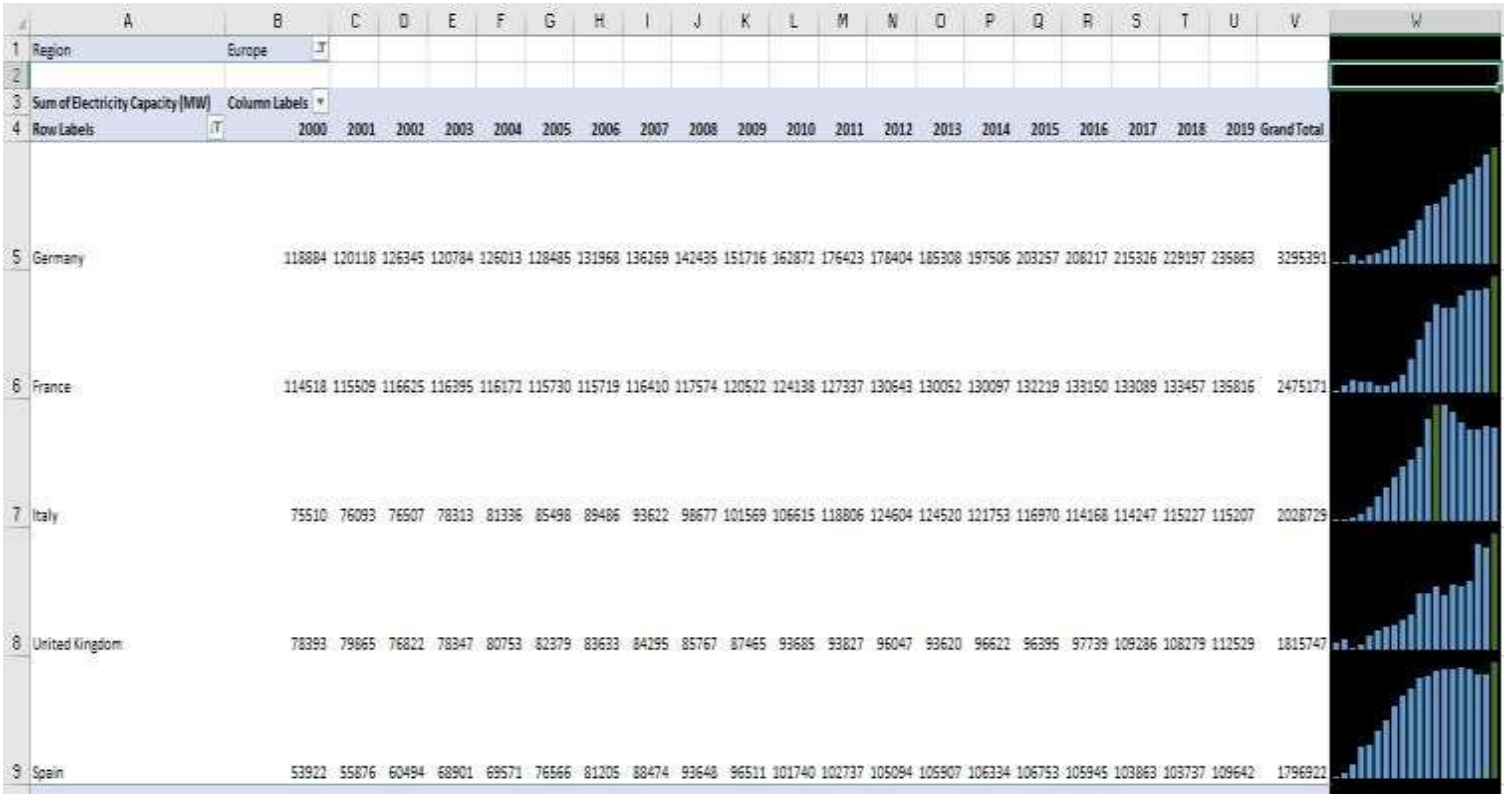
Jobs



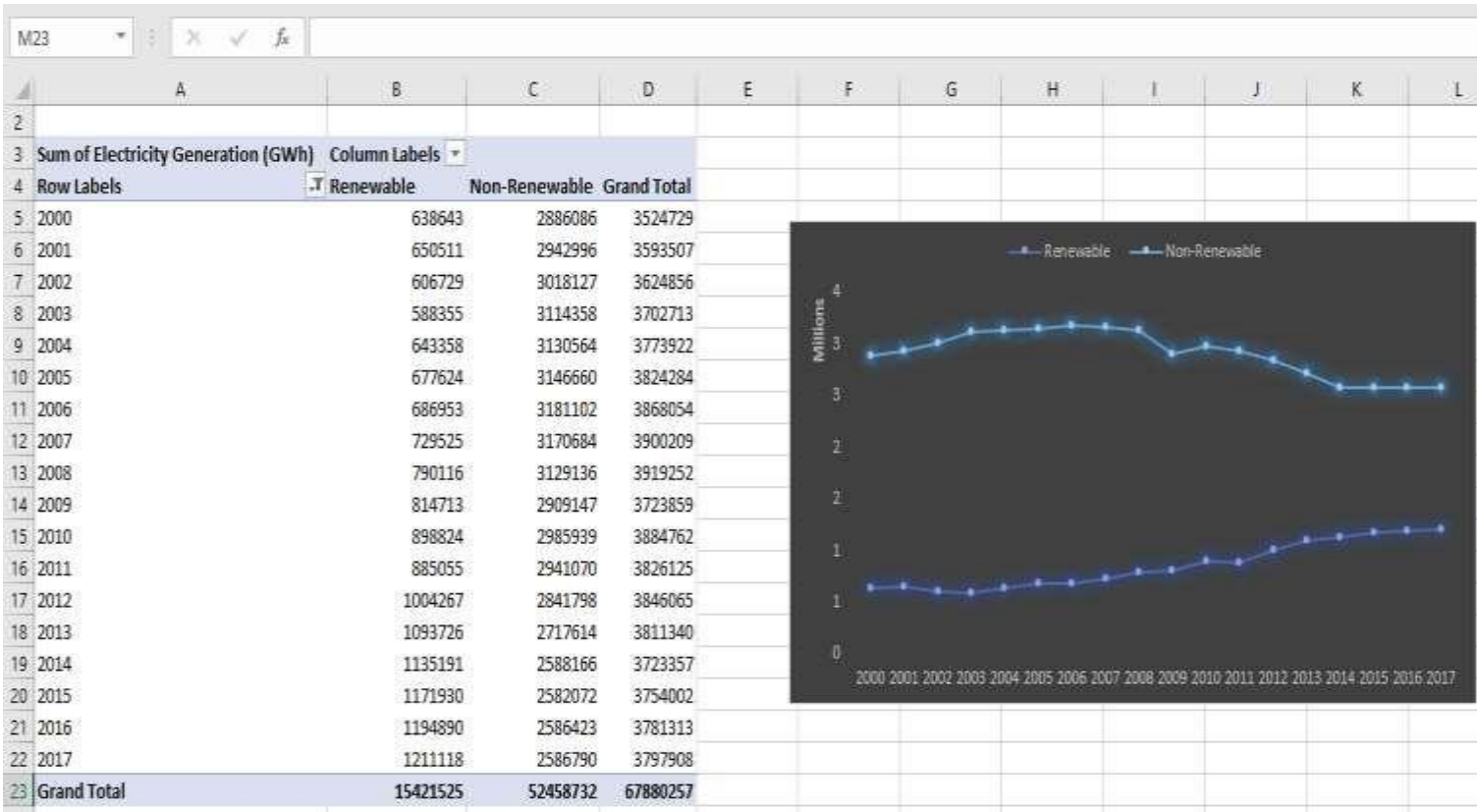
Consumption



Small Multiples

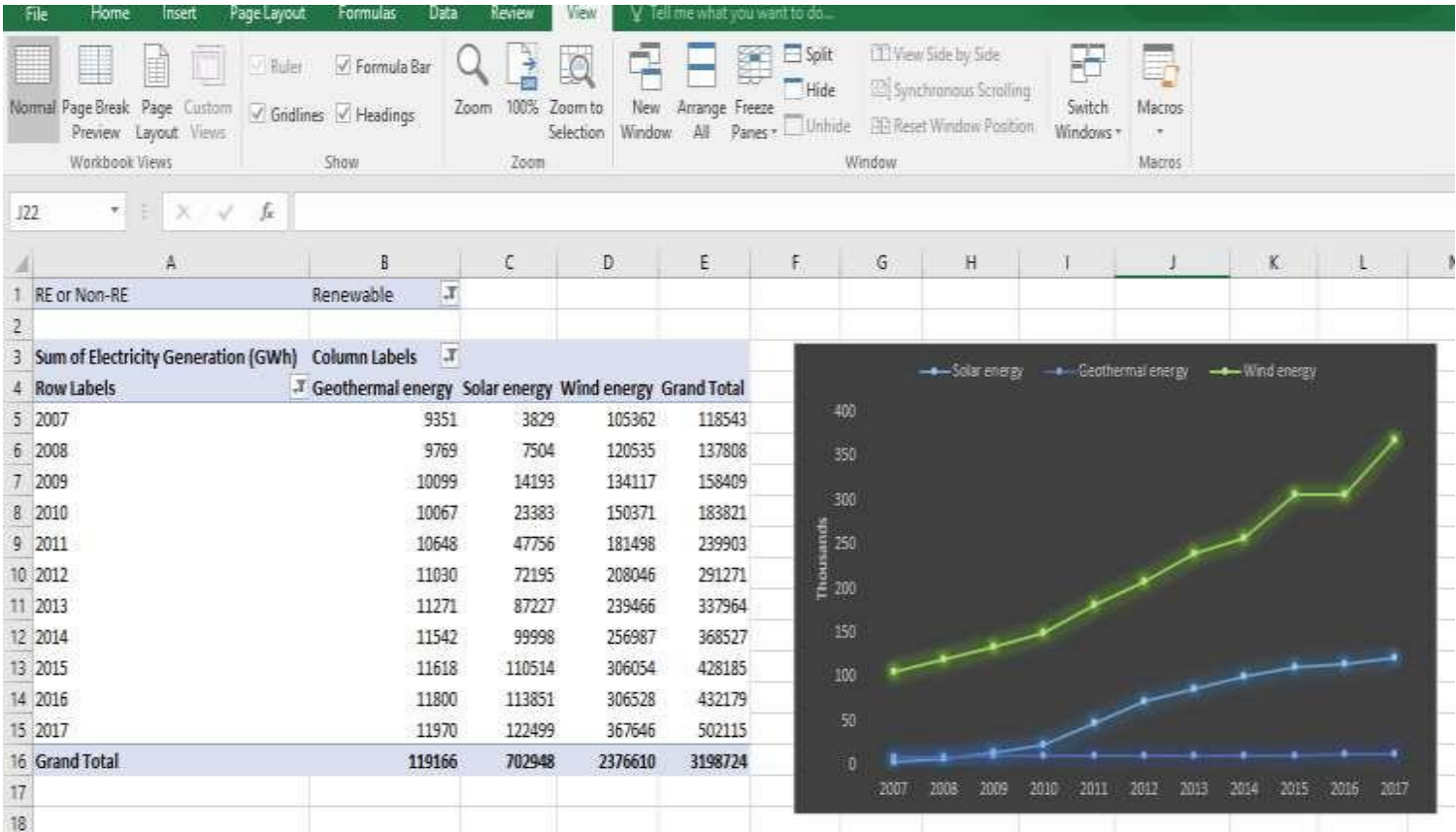


Generation Chart – Non Renewable





Generation Chart – Renewable







Renewable Data

Excel interface showing a table of investment data (Recipient Country/Area, ISO-cod, Region, Project, Date, Investo, Technology, Asset Clas, Amount (USD millio), Source).

Recipient Country/Area	ISO-cod	Region	Project	Date	Investo	Technology	Asset Clas	Amount (USD millio)	Source
Afghanistan	AFG	Asia	Decentralized Power Supply through Renewable Energies	1/01/2013	Others	Multiple renewab	Grant	20.94393394	2013 OECD Crec
Chile	CHL	South Am	Renewable Energy and Energy Efficiency Programme in Chile (AM)	1/01/2013	Others	Multiple renewab	Grant	1.846094985	2013 OECD Crec
Palestine	PSE	Middle Ea	Assistance to Social and Development Projects in Palestine - Essahaba C	1/01/2013	Others	Solar energy	Grant	0.045061927	2013 OECD Crec
Romania	ROU	Europe	Smardian Wind Project	1/01/2013	EBRD	Wind energy	Loan	68.32739934	http://www.eb
Brazil	BRA	South Am	Dos Arcas Wind Project	2/01/2013	BNDES	Wind energy	Loan	23.23537661	Online databas
Nepal	NPL	Asia	PROJECT PREPARATORY FACILITY FOR ENERGY	2/01/2013	AsDB	Renewable Hydro	Grant	14.19450689	2013 OECD Crec
Other Cent Am Carib	XCC	Central Ar	Development of a Clean and Sustainable Electric Grid in Latin America	2/01/2013	IADB	Multiple renewab	Grant	0.720990826	2013 OECD Crec
Senegal	SEN	Africa	SOLAR ENERGY AT THE SERVICE OF EDUCATION. A PHOTOVOLTAIC POWE	2/01/2013	Others	Solar energy	Grant	0.00138199	2013 OECD Crec
Other Africa	XAF	Africa	Employment through development of renewable energy	3/01/2013	Others	Multiple renewab	Grant	5.817765269	2013 OECD Crec
Thailand	THA	Asia	TC AGGREGATED ACTIVITIES	3/01/2013	JICA	Multiple renewab	Grant	1.052247116	2013 OECD Crec
Brazil	BRA	South Am	Faiza IV Wind Project	4/01/2013	BNDES	Wind energy	Loan	6.301203807	Online databas
Bosnia Herzg	BIH	Europe	Energy Sector Program III	5/01/2013	KFW	Multiple renewab	Loan	11.63554807	2013 OECD Crec
Brazil	BRA	South Am	Corredor do Senandes IV Wind Project	5/01/2013	BNDES	Wind energy	Loan	25.88641507	Online databas
Other Africa	XAF	Africa	CEDEAO/ECOWAS 2013. Recruitment of technical assistance ECREEE [Rej	5/01/2013	Others	Multiple renewab	Grant	0.09131202	2013 OECD Crec
Romania	ROU	Europe	Crucea North Wind Farm	5/01/2013	EBRD	Wind energy	Loan	81.44672866	http://www.eb
Brazil	BRA	South Am	Bagasse Pre-Treatment Equipment	6/01/2013	BNDES	Bioenergy	Loan	6.777308448	Online databas

Jobs Data and World Consumption

File		Home		Insert		Page Layout		Formulas	
								<input checked="" type="checkbox"/> Ruler <input checked="" type="checkbox"/> Formulas	
Normal		Page Break Preview		Page Layout		Custom Views		<input checked="" type="checkbox"/> Gridlines <input checked="" type="checkbox"/> Headings	
Workbook Views								Show	
B11								Other	
	A	B	C	D					
1	Year	Technology	Jobs						
2	2013	Solar	2776000						
3	2013	Bioenergy	2499000						
4	2013	Hydrpower	2210000						
5	2013	Wind Energy	834000						
6	2013	Other	227000						
7	2014	Solar	3258000						
8	2014	Bioenergy	2990000						
9	2014	Hydrpower	2036000						
10	2014	Wind Energy	1027000						
11	2014	Other	187000						
12	2015	Solar	3710000						
13	2015	Bioenergy	2882000						
14	2015	Hydrpower	2164000						
15	2015	Wind Energy	1081000						
16	2015	Other	200000						
17	2016	Solar	3918000						
18	2016	Bioenergy	2743000						
19	2016	Hydrpower	2062000						
20	2016	Wind Energy	1160000						
21	2016	Other	240000						

	A	B	C	D	E
1	Region	Year	Type	Value	Date
2	World	1965	Traditiona	9162.457	1/01/1965
3	World	1965	Hydropow	919.7703	1/01/1965
4	World	1965	Solar	0	1/01/1965
5	World	1965	Wind	0	1/01/1965
6	World	1965	Other ren	17.98523	1/01/1965
7	World	1966	Traditiona	9218.173	1/01/1966
8	World	1966	Hydropow	986.2859	1/01/1966
9	World	1966	Solar	0	1/01/1966
10	World	1966	Wind	0	1/01/1966
11	World	1966	Other ren	19.80601	1/01/1966
12	World	1967	Traditiona	9274.227	1/01/1967
13	World	1967	Hydropow	1009.245	1/01/1967
14	World	1967	Solar	0	1/01/1967
15	World	1967	Wind	0	1/01/1967
16	World	1967	Other ren	19.98657	1/01/1967
17	World	1968	Traditiona	9330.623	1/01/1968
18	World	1968	Hydropow	1059.063	1/01/1968
19	World	1968	Solar	0	1/01/1968
20	World	1968	Wind	0	1/01/1968
21	World	1968	Other ren	22.12005	1/01/1968