

Thank you for your application for data analyst position.

Kindly find given real life data analyst task to report back in 1 hour time.

Good luck !

Task:

As a data analyst, you are working with the international organization which has projects with different countries in different continents.

This time, your organization is planning to make project in 3 different parts of the world, but before doing that, they need concise information about these areas of interests.

1. Please provide to your supervisor the following table, which includes all the countries in the datasets.

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	Country name	year	Life Ladder	Log GDP per capita	Social support	Healthy life expectancy at birth	Freedom to make life choices	Generosity	Perceptions of corruption	Regional indicator
0	Afghanistan	2008	3.724	7.370	0.451	50.800	0.718	0.168	0.882	South Asia
1	Afghanistan	2009	4.402	7.540	0.552	51.200	0.679	0.190	0.850	South Asia
2	Afghanistan	2010	4.758	7.647	0.539	51.600	0.600	0.121	0.707	South Asia
3	Afghanistan	2011	3.832	7.620	0.521	51.920	0.496	0.162	0.731	South Asia
4	Afghanistan	2012	3.783	7.705	0.521	52.240	0.531	0.236	0.776	South Asia
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2093	China	2021	5.339	9.673	0.811	69.593	0.904	-0.146	0.755	East Asia
2094	New Zealand	2021	7.277	10.643	0.948	73.400	0.929	0.134	0.242	North America and ANZ
2095	Australia	2021	7.183	10.796	0.940	73.900	0.914	0.159	0.442	North America and ANZ
2096	Canada	2021	7.103	10.776	0.926	73.800	0.915	0.089	0.415	North America and ANZ
2097	United States	2021	6.951	11.023	0.920	68.200	0.837	0.098	0.698	North America and ANZ

2098 rows × 10 columns

2. Please provide descriptive information on the 'Life Ladder, Freedom to make life choices, Perceptions corruption' in the 'Sub-Saharan Africa', 'Middle East and North Africa' and 'South Asia', which looks similar to following tables

Sub-Saharan Africa

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Country name	Life Ladder								Freedom to make life choices								Perceptions of corruption							
	count	mean	std	min	25%	50%	75%	max	count	mean	...	75%	max	count	mean	std	min	25%	50%	75%	max			
Benin	13.0	4.124615	0.822378	3.193	3.47900	3.8700	4.85300	5.820	13.0	0.742538	...	0.77600	0.783	13.0	0.774923	0.095977	0.532	0.74700	0.8060	0.84900	0.856			
Botswana	13.0	3.955615	0.656981	3.461	3.49900	3.5530	4.12800	5.451	13.0	0.821462	...	0.83300	0.858	13.0	0.783462	0.043227	0.723	0.74300	0.8010	0.81400	0.860			
Burkina Faso	14.0	4.215786	0.518539	3.326	3.87325	4.1210	4.71750	4.927	14.0	0.655643	...	0.70625	0.741	14.0	0.761357	0.053212	0.693	0.72625	0.7525	0.79025	0.887			
Burundi	6.0	3.586000	0.344258	2.905	3.59875	3.7405	3.77500	3.792	6.0	0.480000	...	0.59200	0.646	6.0	0.711500	0.105994	0.599	0.62450	0.6975	0.78550	0.860			
Cameroon	16.0	4.654813	0.431192	3.851	4.28675	4.6475	5.04700	5.251	16.0	0.734000	...	0.79250	0.817	16.0	0.876875	0.033878	0.817	0.85400	0.8725	0.90025	0.945			
Chad	15.0	4.065800	0.414214	3.435	3.69100	4.1410	4.37400	4.632	15.0	0.504800	...	0.56500	0.650	15.0	0.866267	0.055891	0.763	0.82600	0.8760	0.88650	0.961			
Comoros	7.0	3.993286	0.363528	3.476	3.82500	3.9560	4.13100	4.609	7.0	0.531000	...	0.54300	0.560	7.0	0.757000	0.058663	0.651	0.73650	0.7620	0.78750	0.838			
Congo (Brazzaville)	11.0	4.545364	0.616289	3.820	4.00550	4.5100	5.04850	5.490	11.0	0.720545	...	0.77550	0.850	10.0	0.781100	0.038564	0.738	0.74675	0.7765	0.80600	0.841			
Ethiopia	10.0	4.386700	0.168202	4.100	4.28075	4.4120	4.53850	4.573	10.0	0.745600	...	0.76525	0.803	9.0	0.728333	0.068764	0.567	0.70300	0.7500	0.76100	0.799			
Gabon	10.0	4.476900	0.441368	3.800	4.04275	4.7215	4.81975	4.914	10.0	0.683500	...	0.72800	0.772	10.0	0.828400	0.031634	0.780	0.81175	0.8315	0.84975	0.868			
Gambia	4.0	4.813750	0.474253	4.118	4.72100	4.9865	5.07925	5.164	4.0	0.726250	...	0.74225	0.812	4.0	0.701750	0.096907	0.572	0.66125	0.7185	0.75900	0.798			
Ghana	16.0	4.835812	0.510756	3.860	4.52975	4.9660	5.12100	5.608	16.0	0.803063	...	0.84975	0.891	16.0	0.860625	0.044764	0.771	0.84425	0.8600	0.89100	0.945			
Guinea	10.0	4.199700	0.696959	3.412	3.61525	3.9735	4.84750	5.252	10.0	0.706900	...	0.72975	0.797	10.0	0.767200	0.032155	0.705	0.75150	0.7640	0.79000	0.815			
Ivory Coast	10.0	4.675500	0.677440	3.570	4.25900	4.7905	5.26525	5.392	10.0	0.754100	...	0.76975	0.800	10.0	0.769700	0.063437	0.671	0.74725	0.7740	0.79325	0.902			
Kenya	16.0	4.415687	0.267385	3.795	4.26650	4.4405	4.58375	4.905	16.0	0.724000	...	0.79925	0.853	16.0	0.861125	0.041986	0.794	0.83475	0.8535	0.90950	0.923			
Lesotho	5.0	3.905000	0.573685	3.512	3.51200	3.7950	3.80800	4.898	5.0	0.707000	...	0.72900	0.757	5.0	0.827600	0.082041	0.743	0.76800	0.7970	0.91500	0.915			
Liberia	10.0	4.105100	0.694289	2.702	3.80950	4.2085	4.53425	5.121	10.0	0.729700	...	0.76525	0.819	10.0	0.852000	0.038626	0.776	0.83100	0.8585	0.86875	0.903			
Madagascar	12.0	3.999750	0.349581	3.551	3.67275	4.0255	4.24075	4.640	11.0	0.519273	...	0.55150	0.570	11.0	0.833364	0.054654	0.720	0.79700	0.8540	0.86600	0.897			
Malawi	13.0	4.019769	0.561681	3.335	3.60000	3.8690	4.27900	5.148	13.0	0.789769	...	0.81000	0.910	13.0	0.772692	0.076669	0.676	0.69100	0.7660	0.83500	0.886			
Mali	14.0	4.283286	0.407338	3.676	3.98625	4.2140	4.64575	4.988	14.0	0.676000	...	0.72875	0.823	14.0	0.801857	0.064700	0.658	0.76750	0.8055	0.84125	0.918			
Mauritania	14.0	4.398286	0.264985	3.923	4.20600	4.3930	4.62975	4.785	14.0	0.556571	...	0.60050	0.735	14.0	0.731429	0.081375	0.586	0.70800	0.7290	0.76950	0.848			

Middle East and North Africa

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Country name	Life Ladder								Freedom to make life choices								Perceptions of corruption							
	count	mean	std	min	25%	50%	75%	max	count	mean	...	75%	max	count	mean	std	min	25%	50%	75%	max			
Algeria	9.0	5.334000	0.470605	4.745	5.04300	5.3170	5.46400	6.355	7.0	0.513571	...	0.58500	0.593	7.0	0.699714	0.055578	0.618	0.66400	0.7000	0.74650	0.759			
Bahrain	12.0	6.055500	0.648359	4.824	5.87800	6.1675	6.33200	7.098	11.0	0.867364	...	0.90650	0.945	6.0	0.581500	0.115801	0.438	0.51075	0.5540	0.68200	0.722			
Egypt	16.0	4.514687	0.506052	3.559	4.19650	4.5145	4.79350	5.541	15.0	0.633333	...	0.71550	0.817	10.0	0.823900	0.072278	0.684	0.79650	0.8220	0.87475	0.914			
Iran	14.0	4.854429	0.295549	4.278	4.69075	4.7590	5.09825	5.336	14.0	0.683000	...	0.76625	0.798	14.0	0.716143	0.070859	0.636	0.67975	0.7065	0.71475	0.872			
Iraq	13.0	4.690385	0.188185	4.413	4.54200	4.7250	4.78500	5.065	12.0	0.530417	...	0.63400	0.700	13.0	0.812077	0.064283	0.710	0.76200	0.7990	0.85900	0.910			
Israel	16.0	7.214562	0.167966	6.841	7.14550	7.2280	7.33725	7.433	16.0	0.728062	...	0.77900	0.834	16.0	0.832250	0.062313	0.743	0.78425	0.8335	0.89275	0.923			
Jordan	16.0	5.164625	0.592731	4.094	4.76575	5.2215	5.54675	6.295	14.0	0.743214	...	0.77000	0.788	5.0	0.697400	0.030778	0.664	0.67000	0.7050	0.70900	0.739			
Kuwait	12.0	6.259750	0.249567	5.947	6.10300	6.1630	6.40350	6.798	11.0	0.820545	...	0.86700	0.934	5.0	0.557000	0.160823	0.328	0.48600	0.5600	0.67500	0.736			
Lebanon	15.0	4.955067	0.386486	4.024	4.62400	5.1540	5.19700	5.491	15.0	0.617867	...	0.66100	0.703	15.0	0.909000	0.029199	0.853	0.89400	0.9110	0.93200	0.949			
Libya	7.0	5.526286	0.150502	5.330	5.42200	5.4940	5.63100	5.754	7.0	0.771714	...	0.78000	0.822	5.0	0.692600	0.056871	0.646	0.66700	0.6730	0.68600	0.791			
Morocco	11.0	5.010545	0.272039	4.383	4.90750	5.0570	5.15250	5.386	11.0	0.730727	...	0.79400	0.819	11.0	0.817727	0.053922	0.717	0.78600	0.8410	0.84400	0.900			
Palestinian Territories	15.0	4.611600	0.191335	4.151	4.50000	4.6470	4.71900	4.907	15.0	0.544933	...	0.64250	0.657	15.0	0.796600	0.038474	0.730	0.76350	0.8040	0.82500	0.858			
Saudi Arabia	16.0	6.535375	0.300876	6.148	6.33550	6.4840	6.59575	7.267	15.0	0.731467	...	0.83750	0.891	4.0	0.535500	0.103165	0.445	0.49000	0.5065	0.55200	0.684			
Tunisia	13.0	4.743538	0.337608	4.124	4.52100	4.7410	5.02500	5.246	13.0	0.625923	...	0.65900	0.781	13.0	0.838923	0.062400	0.722	0.81100	0.8690	0.88600	0.913			
Turkey	16.0	5.220437	0.296542	4.719	4.93300	5.2425	5.49600	5.623	16.0	0.547625	...	0.63425	0.653	16.0	0.768437	0.062236	0.649	0.74550	0.7750	0.80525	0.877			
United Arab Emirates	14.0	6.783357	0.248301	6.458	6.57700	6.7225	6.99575	7.218	13.0	0.917308	...	0.94200	0.962	4.0	0.371500	0.160236	0.203	0.30500	0.3470	0.41350	0.589			
Yemen	13.0	3.892692	0.550441	2.983	3.65800	3.9680	4.21800	4.809	13.0	0.620846	...	0.65900	0.706	10.0	0.822200	0.042705	0.754	0.79425	0.8145	0.84775	0.885			

17 rows × 24 columns

South Asia

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Country name	Life Ladder								Freedom to make life choices						Perceptions of corruption						
	count	mean	std	min	25%	50%	75%	max	count	mean	...	75%	max	count	mean	std	min	25%	50%	75%	max
Afghanistan	13.0	3.512231	0.769187	2.375	2.69400	3.724	3.98300	4.758	13.0	0.507692	...	0.57800	0.718	13.0	0.849538	0.078708	0.707	0.79300	0.871	0.92400	0.954
Bangladesh	16.0	4.771375	0.292925	4.310	4.59425	4.692	5.03175	5.280	16.0	0.758750	...	0.87550	0.902	16.0	0.738938	0.052984	0.635	0.69775	0.750	0.77850	0.806
India	16.0	4.432313	0.551463	3.249	4.14575	4.426	4.78725	5.348	16.0	0.797813	...	0.87850	0.906	16.0	0.825063	0.050513	0.752	0.77900	0.831	0.86225	0.908
Maldives	2.0	5.198000	0.000000	5.198	5.19800	5.198	5.19800	5.198	2.0	0.854500	...	0.85475	0.855	1.0	0.825000	NaN	0.825	0.82500	0.825	0.82500	0.825
Nepal	15.0	4.728133	0.417833	3.809	4.50400	4.748	4.94600	5.449	15.0	0.682733	...	0.77600	0.845	15.0	0.845133	0.076942	0.712	0.79350	0.877	0.89850	0.950
Pakistan	15.0	5.221933	0.433016	4.414	5.03300	5.225	5.51050	5.831	15.0	0.531000	...	0.65950	0.773	15.0	0.797733	0.058349	0.677	0.78150	0.794	0.84600	0.874
Sri Lanka	14.0	4.309643	0.150113	3.977	4.21600	4.328	4.40250	4.612	14.0	0.814929	...	0.83925	0.902	14.0	0.821857	0.051300	0.690	0.79900	0.843	0.85825	0.863

7 rows × 24 columns

3. What is your descriptive analysis based on the given tables on these regions on the 'Life Ladder, Freedom to make life choices, Perceptions corruption' .

4. Please provide following tables and give your opinion on the yearly changes in given countries by using all the given variables (such as Life Ladder, etc.)

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	Country name	year	Life Ladder	Log GDP per capita	Social support	Healthy life expectancy at birth	Freedom to make life choices	Generosity	Perceptions of corruption	Regional indicator
732	India	2006	5.348	8.145	0.707	55.720	0.774	NaN	0.855	South Asia
733	India	2007	5.027	8.204	0.569	56.140	0.729	-0.051	0.862	South Asia
734	India	2008	5.146	8.220	0.684	56.560	0.756	-0.072	0.891	South Asia
735	India	2009	4.522	8.281	0.653	56.980	0.679	-0.026	0.895	South Asia
736	India	2010	4.989	8.349	0.605	57.400	0.783	0.058	0.863	South Asia
737	India	2011	4.635	8.387	0.553	57.700	0.838	-0.038	0.908	South Asia
738	India	2012	4.720	8.428	0.511	58.000	0.609	0.067	0.830	South Asia
739	India	2013	4.428	8.478	0.553	58.300	0.740	0.084	0.832	South Asia
740	India	2014	4.424	8.538	0.621	58.600	0.809	-0.026	0.832	South Asia
741	India	2015	4.342	8.604	0.610	58.900	0.777	-0.005	0.776	South Asia
742	India	2016	4.179	8.673	0.614	59.300	0.820	0.046	0.765	South Asia
743	India	2017	4.046	8.730	0.607	59.700	0.886	-0.042	0.781	South Asia
744	India	2018	3.818	8.779	0.638	60.100	0.890	0.085	0.805	South Asia
745	India	2019	3.249	8.818	0.561	60.500	0.876	0.112	0.752	South Asia
746	India	2020	4.225	8.703	0.617	60.900	0.906	0.075	0.780	South Asia
2086	India	2021	3.819	8.755	0.603	60.633	0.893	0.089	0.774	South Asia

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	Country name	year	Life Ladder	Log GDP per capita	Social support	Healthy life expectancy at birth	Freedom to make life choices	Generosity	Perceptions of corruption	Regional indicator
245	Burkina Faso	2006	3.801	7.367	0.796	46.660	0.588	0.028	0.798	Sub-Saharan Africa
246	Burkina Faso	2007	4.017	7.377	0.771	47.420	0.582	-0.060	0.833	Sub-Saharan Africa
247	Burkina Faso	2008	3.846	7.403	0.727	48.180	0.612	-0.101	0.887	Sub-Saharan Africa
248	Burkina Faso	2010	4.036	7.453	0.773	49.700	0.587	-0.036	0.767	Sub-Saharan Africa
249	Burkina Faso	2011	4.785	7.487	0.710	50.240	0.725	-0.105	0.707	Sub-Saharan Africa
250	Burkina Faso	2012	3.955	7.520	0.744	50.780	0.622	-0.070	0.726	Sub-Saharan Africa
251	Burkina Faso	2013	3.326	7.546	0.745	51.320	0.741	-0.016	0.765	Sub-Saharan Africa
252	Burkina Faso	2014	3.481	7.559	0.742	51.860	0.710	-0.004	0.801	Sub-Saharan Africa
253	Burkina Faso	2015	4.419	7.568	0.705	52.400	0.659	0.004	0.693	Sub-Saharan Africa
254	Burkina Faso	2016	4.206	7.596	0.764	52.900	0.645	-0.001	0.721	Sub-Saharan Africa
255	Burkina Faso	2017	4.647	7.627	0.785	53.400	0.614	-0.063	0.727	Sub-Saharan Africa
256	Burkina Faso	2018	4.927	7.665	0.665	53.900	0.721	-0.013	0.757	Sub-Saharan Africa
257	Burkina Faso	2019	4.741	7.691	0.683	54.400	0.678	-0.004	0.729	Sub-Saharan Africa
1981	Burkina Faso	2021	4.834	7.678	0.672	54.151	0.695	-0.009	0.748	Sub-Saharan Africa

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	Country name	year	Life Ladder	Log GDP per capita	Social support	Healthy life expectancy at birth	Freedom to make life choices	Generosity	Perceptions of corruption	Regional indicator
498	Egypt	2005	5.168	9.036	0.848	59.700	0.817	NaN	NaN	Middle East and North Africa
499	Egypt	2007	5.541	9.135	0.686	59.820	0.609	-0.121	NaN	Middle East and North Africa
500	Egypt	2008	4.632	9.186	0.738	59.880	NaN	-0.087	0.914	Middle East and North Africa
501	Egypt	2009	5.066	9.213	0.744	59.940	0.611	-0.100	0.801	Middle East and North Africa
502	Egypt	2010	4.669	9.244	0.769	60.000	0.486	-0.076	0.826	Middle East and North Africa
503	Egypt	2011	4.174	9.240	0.753	60.160	0.590	-0.151	0.859	Middle East and North Africa
504	Egypt	2012	4.204	9.240	0.737	60.320	0.452	-0.138	0.880	Middle East and North Africa
505	Egypt	2013	3.559	9.239	0.675	60.480	0.474	-0.141	0.913	Middle East and North Africa
506	Egypt	2014	4.885	9.245	0.619	60.640	0.578	-0.126	0.749	Middle East and North Africa
507	Egypt	2015	4.763	9.266	0.730	60.800	0.659	-0.089	0.684	Middle East and North Africa
508	Egypt	2016	4.557	9.287	0.809	61.100	0.656	-0.141	0.818	Middle East and North Africa
509	Egypt	2017	3.929	9.307	0.638	61.400	0.593	-0.152	NaN	Middle East and North Africa
510	Egypt	2018	4.005	9.338	0.759	61.700	0.682	-0.215	NaN	Middle East and North Africa
511	Egypt	2019	4.328	9.373	0.772	62.000	0.774	-0.199	NaN	Middle East and North Africa
512	Egypt	2020	4.472	9.383	0.673	62.300	0.770	-0.112	NaN	Middle East and North Africa

5. Please give us both numeric and descriptive column wise versions of ‘Perceptions of Corruption’ similar to following tables

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	Country name	year	Perceptions of corruption	Trust in institutions
1311	Pakistan	2005	0.844	Lower than normal level trust in institutions
1312	Pakistan	2007	0.794	About the normal level trust in institutions
1313	Pakistan	2008	0.848	Lower than normal level trust in institutions
1314	Pakistan	2009	0.874	Low trust in institutions
1315	Pakistan	2010	0.852	Lower than normal level trust in institutions
1316	Pakistan	2011	0.857	Lower than normal level trust in institutions
1317	Pakistan	2012	0.842	Lower than normal level trust in institutions
1318	Pakistan	2013	0.792	About the normal level trust in institutions
1319	Pakistan	2014	0.677	High level trust in institutions
1320	Pakistan	2015	0.717	About the normal level trust in institutions
1321	Pakistan	2016	0.793	About the normal level trust in institutions
1322	Pakistan	2017	0.714	About the normal level trust in institutions
1323	Pakistan	2018	0.799	About the normal level trust in institutions
1324	Pakistan	2019	0.776	About the normal level trust in institutions
2084	Pakistan	2021	0.787	About the normal level trust in institutions

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	Country name	year	Perceptions of corruption	Trust in institutions
1566	South Africa	2006	NaN	High level trust in institutions
1567	South Africa	2007	0.859	Lower than normal level trust in institutions
1568	South Africa	2008	0.866	Lower than normal level trust in institutions
1569	South Africa	2009	0.904	Low trust in institutions
1570	South Africa	2010	0.791	About the normal level trust in institutions
1571	South Africa	2011	0.819	Lower than normal level trust in institutions
1572	South Africa	2012	0.838	Lower than normal level trust in institutions
1573	South Africa	2013	0.800	About the normal level trust in institutions
1574	South Africa	2014	0.820	Lower than normal level trust in institutions
1575	South Africa	2015	0.853	Lower than normal level trust in institutions
1576	South Africa	2016	0.813	Lower than normal level trust in institutions
1577	South Africa	2017	0.865	Lower than normal level trust in institutions
1578	South Africa	2018	0.841	Lower than normal level trust in institutions
1579	South Africa	2019	0.820	Lower than normal level trust in institutions
1580	South Africa	2020	0.912	Low trust in institutions
1979	South Africa	2021	0.860	Lower than normal level trust in institutions

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	Country name	year	Perceptions of corruption	Trust in institutions
968	Lebanon	2005	0.945	Low trust in institutions
969	Lebanon	2006	0.902	Low trust in institutions
970	Lebanon	2008	0.927	Low trust in institutions
971	Lebanon	2009	0.937	Low trust in institutions
972	Lebanon	2010	0.949	Low trust in institutions
973	Lebanon	2011	0.911	Low trust in institutions
974	Lebanon	2012	0.856	Lower than normal level trust in institutions
975	Lebanon	2013	0.921	Low trust in institutions
976	Lebanon	2014	0.939	Low trust in institutions
977	Lebanon	2015	0.889	Low trust in institutions
978	Lebanon	2016	0.853	Lower than normal level trust in institutions
979	Lebanon	2017	0.911	Low trust in institutions
980	Lebanon	2018	0.907	Low trust in institutions
981	Lebanon	2019	0.890	Low trust in institutions
2038	Lebanon	2021	0.898	Low trust in institutions

6. Provide your final thoughts based on the analyses.

Thank you .