Alumno: _____ No. Control:

_____ **Instrucciones**

Desarrolle el siguiente problema con R y RStudio para la extracción de conocimiento que el problema require.

El Banco Mundial quedó muy impresionado con su entrega en la asignación anterior y tienen un nuevo proyecto para usted.

Debe generar un diagrama de dispersión (scatter-plot) que muestre las estadísticas de esperanza de vida (Life expectancy - eje y) y tasa de fertilidad (Fertility Rate -eje x) por país (Country).

El diagrama de dispersión también debe clasificarse por países Regiones (Country Regions).

Se le han proporcionado datos durante 2 años: 1960 y 2013 y se le exige que produzca una visualización para cada uno de estos años.

Algunos datos se han proporcionado en un archivo CVS, algunos en vectores R. El archivo CVS contiene datos combinados de ambos años. Toda manipulación de datos debe realizarse en R (No en Excel) porque este proyecto puede ser auditado en una etapa posterior.

También se le ha pedido que proporcione información sobre cómo se comparan los dos períodos. (Hint: Basicamente la explicación de sus observaciones)
Nota:
Los archivos para realizar esta practica que son **Evaluation_Vectors.R y DataFrameEvaluation_Data.csv se encuentra en la carpeta de Google Drive compartida Recursos/Informacion-U1:**

Instrucciones de evaluación
- Tiempo de entrega 22 de marzo 2022

- Al terminar poner el codigo y la documentación con su explicación en el branch correspondiete de su github, asi mismo realizar su explicación de la solución en su google drive en documento de google (Portada, Introduccion, Desarrollo, etc). - Finalmente defender su desarrollo en un video de 6-8 min explicando su solución y obsevaciones, este servira para dar su calificación de esta práctica evaluatoria, este video debe subirse a youtube para ser compartido por un link publico (Utilicen google meet o MS Teams con las camaras encendidas y graben su defensa para eleborar el video).

Happy Coding :) !

Práctica

#Execute below code to generate three new vectors // Ejecutamos para generar los 3 vectores

```
> Country_Code <- c("ABW","AFG","AGO","ALB","ARE","ARG","ARM","ATG","AUS","AUT","AZE","BDI","BEL","BEN","BFA","BGD","BGR","BHR","BHS","BIH","BLR","BL
Z","BOL","BRA","BRB","BRN","BTN","BWA","CAF","CAN","CHE","CHL","CHN","CIV","CMR","COG","COL","COM","CPV","CRI","CUB","CYP","CZE","DEU","DJI","DNK","DO
M","DZA","ECU","EGY","ERI","ESP","EST","ETH","FIN","FJI","FRA","FSM","GAB","GBR","GEO","GHA","GIN","GMB","GNB","GNQ","GRC","GRD","GTM","GUM","GUY","HK
G","HND","HRV","HTI","HUN","IDN","IND","IRL","IRN","IRQ","ISL","ITA","JAM","JOR","JPN","KAZ","KEN","KGZ","KHM","KIR","KOR","KWT","LAO","LBN","LBR","LB
Y","LCA","LKA","LSO","LTU","LUX","LVA","MAC","MAR","MDA","MDG","MDV","MEX","MKD","MLI","MLT","MMR","MNE","MNG","MOZ","MRT","MUS","MWI","MYS","NAM","NC
L","NER","NGA","NIC","NLD","NOR","NPL","NZL","OMN","PAK","PAN","PER","PHL","PNG","POL","PRI","PRT","PRY","PYF","QAT","ROU","RUS","RWA","SAU","SDN","SE
N","SGP","SLB","SLE","SLV","SOM","SSD","STP","SUR","SVK","SVN","SWE","SWZ","SYR","TCD","TGO","THA","TJK","TKM","TLS","TON","TTO","TUN","TUR","TZA","UG
A","UKR","URY","USA","UZB","VCT","VEN","VIR","VNM","VUT","WSM","YEM","ZAF","COD","ZMB","ZWE")
```

```
> Life_Expectancy_At_Birth_1960 <- c(65.5693658536586,32.328512195122,32.9848292682927,62.2543658536585,52.2432195121951,65.2155365853659,65.863463414
6342,61.7827317073171,70.8170731707317,68.5856097560976,60.836243902439,41.2360487804878,69.7019512195122,37.2782682926829,34.4779024390244,45.8293170
731707,69.2475609756098,52.0893658536585,62.7290487804878,60.2762195121951,67.7080975609756,59.9613658536585,42.1183170731707,54.2054634146342,60.7380
487804878,62.5003658536585,32.3593658536585,50.5477317073171,36.4826341463415,71.1331707317073,71.3134146341463,57.458292682929268,43.4658048780488,36.8
724146341463,41.5237560975561,48.5816341463415,56.716756097561,41.4424390243903,48.8564146341463,60.5761951219512,63.9046585365854,69.5939268292683,70.
3487804878049,69.3129512195122,44.0212682926829,72.1765853658537,51.8452682926829,46.1351219512195,53.215,48.0137073170732,37.3629024390244,69.1092682
926829,67.9059756097561,38.4057073170732,68.8197560975561,55.9584878048781,69.8682926829268,57.5865853658537,39.5701219512195,71.1268292682927,63.43185
36585366,45.8314634146342,34.8863902439024,32.0422195121951,37.8404390243902,36.7330487804878,68.1639024390244,59.8159268292683,45.5316341463415,61.22
6341463146,60.2787317073171,66.9997073170732,46.2883170731707,64.6086585365854,42.1000975609756,68.0031707317073,48.6403170731707,41.1719512195122,6
9.6917560975561,44.945512195122,48.0306829268293,73.4286585365854,69.123902439024,64.1918292682927,52.6852682926829,67.6660975609756,58.3675853658537,
46.3624146341463,56.1280731707317,41.2320243902439,49.2159756097561,53.0013170731707,60.3479512195122,43.2044634146342,63.2801219512195,34.78317073170
73,42.6411951219512,57.303756097561,59.7471463414634,46.5107073170732,69.8473170731707,68.4463902439024,69.7868292682927,64.6609268292683,48.446634146
3415,61.8127804878049,39.9746829268293,37.2686341463415,57.0656341463415,60.6228048780488,28.2116097560976,67.6017804878049,42.736390243024,63.705609
7560976,48.3688048780488,35.0037073170732,43.4830975609756,58.7452195121951,37.7736341463415,59.4753414634146,46.8803902439024,58.639024390243,35.515
0487804878,37.1829512195122,46.9988292682927,73.3926829268293,73.549756097561,35.1708292682927,71.2365853658537,42.6670731707317,45.290463414634642,60.8
8170731707317,47.6915853658537,57.8119268292683,38.462243902439,67.6804878048781,68.719609756976,62.8089268292683,63.7937073170732,56.3570487804878,6
1.206073170731707,45.6424390243903,66.0552926829268,42.2492926829268,45.666268292926829,48.187634146341 5,38.206,65.6598292682927,49.3817073170732,30.33153
65853659,49.9479268292683,36.9658780487805,31.6767073170732,50.4513658536585,59.6801219512195,69.9759268292683,68.9780487804878,73.0056097560976,44.23
37804878049,52.768243902439,38.0161219512195,40.2728292682927,54.699317073170 7,56.1535365853659,54.4586829268293,33.7271219512195,61.3645365853659,62.
6575853658537,42.009756097561,45.3844146341463,43.6538780487805,43.9835609756098,68.2995365853659,67.8963902439025,69.7707317073171,58.8855365853659,5
7.2378048780488,59.2851219512195,63.7302195121951,59.0670243902439,46.4874878048781,49.969512195122,34.3638048780488,49.0362926829268,41.018048780487
8,45.1098048780488,51.5424634146342)
```

#read values // lee los valores del archivo agregado

```
> values <- read.csv(file.choose()
```

Install function to graph // instalamos función para graficar

```
> library(ggplot2)
>
```

Create data frame using previous values // Creamos tabla usando los datos del archivo

```
> Vectores <- data.frame(Country= Country_Code, LExpectancy1960 = Life_Expectancy_At_Birth_1960, LExpectancy2013 = Life_Expectancy_At_Birth_2013)
> values60s <- values$Year == 1960
```

#Vamos hacer 2 vectores más para facilitar uno para cada año

```
> values60s <- values$Year == 1960
> values13s <- values$Year == 2013
```

Using the above vector to create a dataframe with correct values // con esta función hacemos una tabla y mandamos a hablar a los valores correctos de cada vector

```
> funcional60s <- values[values60s, ]
> funcional13s <- values[values13s, ]
```

here we are going to merge the vectors with the functional data // aqui vamos a fusionar los vectores con los datos funcionales

```
> year60 <- merge(funcional60s, Vectores[,-c(3)], by.x = "Country.Code", by.y = "Country")
> year13 <- merge(funcional13s, Vectores[,-c(2)], by.x = "Country.Code", by.y = "Country")
```

#Filter for new dataframe // Filtro

#Year 1960

```
> dataf1960<-year60$Year==1960
> dataf1960<-year60[dataf1960,]
> dataf1960
   Country.Code              Country.Name        Region Year Fertility.Rate LExpectancy1960
1           ABW                     Aruba  The Americas 1960          4.820        65.56937
2           AFG               Afghanistan          Asia 1960          7.450        32.32851
3           AGO                    Angola        Africa 1960          7.379        32.98483
4           ALB                   Albania        Europe 1960          6.186        62.25437
5           ARE      United Arab Emirates   Middle East 1960          6.928        52.24322
6           ARG                 Argentina  The Americas 1960          3.109        65.21554
7           ARM                   Armenia          Asia 1960          4.550        65.86346
8           ATG       Antigua and Barbuda  The Americas 1960          4.425        61.78273
9           AUS                 Australia       Oceania 1960          3.453        70.81707
10          AUT                   Austria        Europe 1960          2.690        68.58561
11          AZE                Azerbaijan          Asia 1960          5.571        60.83624
12          BDI                   Burundi        Africa 1960          6.953        41.23605
13          BEL                   Belgium        Europe 1960          2.540        69.70195
14          BEN                     Benin        Africa 1960          6.282        37.27827
15          BFA              Burkina Faso        Africa 1960          6.291        34.47790
16          BGD                Bangladesh          Asia 1960          6.725        45.82932
17          BGR                  Bulgaria        Europe 1960          2.310        69.24756
18          BHR                   Bahrain   Middle East 1960          7.090        52.08937
19          BHS              Bahamas, The  The Americas 1960          4.495        62.72905
20          BIH    Bosnia and Herzegovina        Europe 1960          3.770        60.27622
21          BLR                   Belarus        Europe 1960          2.670        67.70810
22          BLZ                    Belize  The Americas 1960          6.500        59.96137
23          BOL                   Bolivia  The Americas 1960          6.700        42.11832
24          BRA                    Brazil  The Americas 1960          6.210        54.20546
25          BRB                  Barbados  The Americas 1960          4.333        60.73805
```

25	BRB	Barbados	The Americas	1960	4.333	60.73805
26	BRN	Brunei Darussalam	Asia	1960	6.487	62.50037
27	BTN	Bhutan	Asia	1960	6.670	32.35937
28	BWA	Botswana	Africa	1960	6.615	50.54773
29	CAF	Central African Republic	Africa	1960	5.840	36.48263
30	CAN	Canada	The Americas	1960	3.811	71.13317
31	CHE	Switzerland	Europe	1960	2.440	71.31341
32	CHL	Chile	The Americas	1960	5.113	57.45829
33	CHN	China	Asia	1960	5.758	43.46580
34	CIV	Cote d'Ivoire	Africa	1960	7.351	36.87241
35	CMR	Cameroon	Africa	1960	5.647	41.52376
36	COD	Congo, Dem. Rep.	Africa	1960	6.001	41.01805
37	COG	Congo, Rep.	Africa	1960	5.880	48.58163
38	COL	Colombia	The Americas	1960	6.807	56.71676
39	COM	Comoros	Africa	1960	6.792	41.44244
40	CPV	Cabo Verde	Africa	1960	6.885	48.85641
41	CRI	Costa Rica	The Americas	1960	6.451	60.57620
42	CUB	Cuba	The Americas	1960	4.182	63.90466
43	CYP	Cyprus	Europe	1960	3.500	69.59393
44	CZE	Czech Republic	Europe	1960	2.090	70.34878
45	DEU	Germany	Europe	1960	2.370	69.31295
46	DJI	Djibouti	Africa	1960	6.461	44.02127
47	DNK	Denmark	Europe	1960	2.570	72.17659
48	DOM	Dominican Republic	The Americas	1960	7.555	51.84527
49	DZA	Algeria	Africa	1960	7.524	46.13512
50	ECU	Ecuador	The Americas	1960	6.721	53.21500
51	EGY	Egypt, Arab Rep.	Africa	1960	6.630	48.01371
52	ERI	Eritrea	Africa	1960	6.899	37.36290
53	ESP	Spain	Europe	1960	2.860	69.10927
54	EST	Estonia	Europe	1960	1.980	67.90598
55	ETH	Ethiopia	Africa	1960	6.880	38.40571
56	FIN	Finland	Europe	1960	2.720	68.81976
57	FJI	Fiji	Oceania	1960	6.461	55.95849
58	FRA	France	Europe	1960	2.850	69.86829
59	FSM	Micronesia, Fed. Sts.	Oceania	1960	6.934	57.58659
60	GAB	Gabon	Africa	1960	4.384	39.57012
61	GBR	United Kingdom	Europe	1960	2.690	71.12683
62	GEO	Georgia	Asia	1960	2.964	63.43185

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69	GRD	Grenada	The Americas	1960	6.743	59.81593
70	GTM	Guatemala	The Americas	1960	6.534	45.53163
71	GUM	Guam	Oceania	1960	6.052	61.22634
72	GUY	Guyana	The Americas	1960	5.754	60.27873
73	HKG	Hong Kong SAR, China	Asia	1960	5.162	66.99971
74	HND	Honduras	The Americas	1960	7.458	46.28832
75	HRV	Croatia	Europe	1960	2.332	64.60866
76	HTI	Haiti	The Americas	1960	6.324	42.10010
77	HUN	Hungary	Europe	1960	2.020	68.00317
78	IDN	Indonesia	Asia	1960	5.666	48.64032
79	IND	India	Asia	1960	5.906	41.17195
80	IRL	Ireland	Europe	1960	3.780	69.69176
81	IRN	Iran, Islamic Rep.	Middle East	1960	6.927	44.94551
82	IRQ	Iraq	Middle East	1960	6.252	48.03068
83	ISL	Iceland	Europe	1960	4.290	73.42866
84	ITA	Italy	Europe	1960	2.370	69.12390
85	JAM	Jamaica	The Americas	1960	5.419	64.19183
86	JOR	Jordan	Middle East	1960	7.687	52.68527
87	JPN	Japan	Asia	1960	2.001	67.66610
88	KAZ	Kazakhstan	Asia	1960	4.563	58.36759
89	KEN	Kenya	Africa	1960	7.946	46.36241
90	KGZ	Kyrgyz Republic	Asia	1960	5.166	56.12807
91	KHM	Cambodia	Asia	1960	6.967	41.23202
92	KIR	Kiribati	Oceania	1960	6.788	49.21598
93	KOR	Korea, Rep.	Asia	1960	6.155	53.00132
94	KWT	Kuwait	Middle East	1960	7.251	60.34795
95	LAO	Lao PDR	Asia	1960	5.961	43.20446
96	LBN	Lebanon	Middle East	1960	5.739	63.28012
97	LBR	Liberia	Africa	1960	6.406	34.78317
98	LBY	Libya	Africa	1960	7.202	42.64120
99	LCA	St. Lucia	The Americas	1960	6.967	57.30376
100	LKA	Sri Lanka	Asia	1960	5.541	59.74715
101	LSO	Lesotho	Africa	1960	5.839	46.51071
102	LTU	Lithuania	Europe	1960	2.560	69.84732
103	LUX	Luxembourg	Europe	1960	2.290	68.44639
104	LVA	Latvia	Europe	1960	1.940	69.78683
105	MAC	Macao SAR, China	Asia	1960	4.945	64.66093
106	MAR	Morocco	Africa	1960	7.065	48.44663

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101	LSO	Lesotho	Africa	1960	5.839	46.51071
102	LTU	Lithuania	Europe	1960	2.560	69.84732
103	LUX	Luxembourg	Europe	1960	2.290	68.44639
104	LVA	Latvia	Europe	1960	1.940	69.78683
105	MAC	Macao SAR, China	Asia	1960	4.945	64.66093
106	MAR	Morocco	Africa	1960	7.065	48.44663
107	MDA	Moldova	Europe	1960	3.328	61.81278
108	MDG	Madagascar	Africa	1960	7.300	39.97468
109	MDV	Maldives	Asia	1960	7.021	37.26863
110	MEX	Mexico	The Americas	1960	6.768	57.06563
111	MKD	Macedonia, FYR	Europe	1960	3.842	60.62280
112	MLI	Mali	Africa	1960	6.967	28.21161
113	MLT	Malta	Europe	1960	3.620	67.60178
114	MMR	Myanmar	Asia	1960	6.051	42.73639
115	MNE	Montenegro	Europe	1960	3.521	63.70561
116	MNG	Mongolia	Asia	1960	6.953	48.36880
117	MOZ	Mozambique	Africa	1960	6.600	35.00371
118	MRT	Mauritania	Africa	1960	6.775	43.48310
119	MUS	Mauritius	Africa	1960	6.167	58.74522
120	MWI	Malawi	Africa	1960	6.940	37.77363
121	MYS	Malaysia	Asia	1960	6.194	59.47534
122	NAM	Namibia	Africa	1960	6.150	46.88039
123	NCL	New Caledonia	Oceania	1960	6.278	58.63902
124	NER	Niger	Africa	1960	7.407	35.51505
125	NGA	Nigeria	Africa	1960	6.354	37.18295
126	NIC	Nicaragua	The Americas	1960	7.336	46.99883
127	NLD	Netherlands	Europe	1960	3.120	73.39268
128	NOR	Norway	Europe	1960	2.850	73.54976
129	NPL	Nepal	Asia	1960	5.959	35.17083
130	NZL	New Zealand	Oceania	1960	4.129	71.23659
131	OMN	Oman	Middle East	1960	7.247	42.66707
132	PAK	Pakistan	Asia	1960	6.600	45.29046
133	PAN	Panama	The Americas	1960	5.870	60.88171
134	PER	Peru	The Americas	1960	6.971	47.69159
135	PHL	Philippines	Asia	1960	7.148	57.81193
136	PNG	Papua New Guinea	Oceania	1960	6.275	38.46224
137	POL	Poland	Europe	1960	2.980	67.68049
138	PRI	Puerto Rico	The Americas	1960	4.657	68.71961

```
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130    NZL             New Zealand       Oceania 1960      4.129      71.23659
131    OMN                    Oman   Middle East 1960      7.247      42.66707
132    PAK                Pakistan          Asia 1960      6.600      45.29046
133    PAN                  Panama  The Americas 1960      5.870      60.88171
134    PER                    Peru  The Americas 1960      6.971      47.69159
135    PHL             Philippines         Asia 1960      7.148      57.81193
136    PNG        Papua New Guinea      Oceania 1960      6.275      38.46224
137    POL                  Poland        Europe 1960      2.980      67.68049
138    PRI             Puerto Rico  The Americas 1960      4.657      68.71961
139    PRT                Portugal        Europe 1960      3.160      62.80893
140    PRY                Paraguay  The Americas 1960      6.500      63.79371
141    PYF        French Polynesia      Oceania 1960      5.658      56.35705
142    QAT                   Qatar   Middle East 1960      6.971      61.20607
143    ROU                 Romania        Europe 1960      2.340      65.64244
144    RUS      Russian Federation        Europe 1960      2.520      66.05529
145    RWA                  Rwanda        Africa 1960      8.187      42.24929
146    SAU            Saudi Arabia   Middle East 1960      7.216      45.66627
147    SDN                   Sudan        Africa 1960      6.691      48.18763
148    SEN                 Senegal        Africa 1960      6.951      38.20600
149    SGP               Singapore          Asia 1960      5.454      65.65983
150    SLB         Solomon Islands      Oceania 1960      6.388      49.38171
151    SLE            Sierra Leone        Africa 1960      5.970      30.33154
152    SLV             El Salvador  The Americas 1960      6.674      49.94793
153    SOM                 Somalia        Africa 1960      7.250      36.96588
154    SSD             South Sudan        Africa 1960      6.721      31.67671
155    STP   Sao Tome and Principe        Africa 1960      6.242      50.45137
156    SUR                Suriname  The Americas 1960      6.608      59.68012
157    SVK         Slovak Republic        Europe 1960      3.040      69.97593
158    SVN                Slovenia        Europe 1960      2.324      68.97805
159    SWE                  Sweden        Europe 1960      2.170      73.00561
160    SWZ               Swaziland        Africa 1960      6.717      44.23378
161    SYR      Syrian Arab Republic  Middle East 1960     7.467      52.76824
162    TCD                    Chad        Africa 1960      6.250      38.01612
163    TGO                    Togo        Africa 1960      6.521      40.27283
164    THA                Thailand          Asia 1960      6.147      54.69932
165    TJK              Tajikistan          Asia 1960      6.235      56.15354
166    TKM            Turkmenistan          Asia 1960      6.415      54.45868
 [ reached 'max' / getOption("max.print") -- omitted 21 rows ]
```

#Year 2013

```
>
> dataf2013$LExpectancy2013<-NULL
> dataf2013<-year13$Year==2013
> dataf2013<-year13[dataf2013,]
> dataf2013
```

	Country.Code	Country.Name	Region	Year	Fertility.Rate	LExpectancy2013
1	ABW	Aruba	The Americas	2013	1.669	75.32866
2	AFG	Afghanistan	Asia	2013	5.050	60.02827
3	AGO	Angola	Africa	2013	6.165	51.86617
4	ALB	Albania	Europe	2013	1.771	77.53724
5	ARE	United Arab Emirates	Middle East	2013	1.801	77.19563
6	ARG	Argentina	The Americas	2013	2.335	75.98610
7	ARM	Armenia	Asia	2013	1.553	74.56137
8	ATG	Antigua and Barbuda	The Americas	2013	2.088	75.77866
9	AUS	Australia	Oceania	2013	1.921	82.19756
10	AUT	Austria	Europe	2013	1.440	80.89024
11	AZE	Azerbaijan	Asia	2013	2.000	70.69315
12	BDI	Burundi	Africa	2013	6.035	56.25161
13	BEL	Belgium	Europe	2013	1.790	80.38537
14	BEN	Benin	Africa	2013	4.846	59.31202
15	BFA	Burkina Faso	Africa	2013	5.607	58.24063
16	BGD	Bangladesh	Asia	2013	2.209	71.24524
17	BGR	Bulgaria	Europe	2013	1.500	74.46585
18	BHR	Bahrain	Middle East	2013	2.075	76.54595
19	BHS	Bahamas, The	The Americas	2013	1.883	75.07354
20	BIH	Bosnia and Herzegovina	Europe	2013	1.272	76.27693
21	BLR	Belarus	Europe	2013	1.620	72.47073
22	BLZ	Belize	The Americas	2013	2.611	69.98205
23	BOL	Bolivia	The Americas	2013	3.017	67.91344
24	BRA	Brazil	The Americas	2013	1.801	74.12244
25	BRB	Barbados	The Americas	2013	1.791	75.33395
26	BRN	Brunei Darussalam	Asia	2013	1.893	78.54666
27	BTN	Bhutan	Asia	2013	2.082	69.10293
28	BWA	Botswana	Africa	2013	2.864	64.36080
29	CAF	Central African Republic	Africa	2013	4.368	49.87988
30	CAN	Canada	The Americas	2013	1.610	81.40112
31	CHE	Switzerland	Europe	2013	1.520	82.74878
32	CHL	Chile	The Americas	2013	1.774	81.19793
33	CHN	China	Asia	2013	1.668	75.35302
34	CIV	Cote d'Ivoire	Africa	2013	5.063	51.20846
35	CMR	Cameroon	Africa	2013	4.781	55.04180

34	CIV	Cote d'Ivoire	Africa	2013	5.063	51.20846
35	CMR	Cameroon	Africa	2013	4.781	55.04180
36	COD	Congo, Dem. Rep.	Africa	2013	6.103	58.27193
37	COG	Congo, Rep.	Africa	2013	4.919	61.66639
38	COL	Colombia	The Americas	2013	1.922	73.80973
39	COM	Comoros	Africa	2013	4.560	62.93217
40	CPV	Cabo Verde	Africa	2013	2.339	72.97237
41	CRI	Costa Rica	The Americas	2013	1.841	79.22522
42	CUB	Cuba	The Americas	2013	1.622	79.25639
43	CYP	Cyprus	Europe	2013	1.455	79.94978
44	CZE	Czech Republic	Europe	2013	1.450	78.27805
45	DEU	Germany	Europe	2013	1.380	81.04390
46	DJI	Djibouti	Africa	2013	3.262	61.68646
47	DNK	Denmark	Europe	2013	1.730	80.30244
48	DOM	Dominican Republic	The Americas	2013	2.510	73.31990
49	DZA	Algeria	Africa	2013	2.893	74.56895
50	ECU	Ecuador	The Americas	2013	2.571	75.64851
51	EGY	Egypt, Arab Rep.	Africa	2013	3.336	70.92578
52	ERI	Eritrea	Africa	2013	4.363	63.17788
53	ESP	Spain	Europe	2013	1.320	82.42683
54	EST	Estonia	Europe	2013	1.560	76.42439
55	ETH	Ethiopia	Africa	2013	4.517	63.44220
56	FIN	Finland	Europe	2013	1.800	80.83171
57	FJI	Fiji	Oceania	2013	2.589	69.91793
58	FRA	France	Europe	2013	2.010	81.96829
59	FSM	Micronesia, Fed. Sts.	Oceania	2013	3.294	68.97339
60	GAB	Gabon	Africa	2013	3.963	63.84359
61	GBR	United Kingdom	Europe	2013	1.920	80.95610
62	GEO	Georgia	Asia	2013	1.817	74.07951
63	GHA	Ghana	Africa	2013	4.209	61.14207
64	GIN	Guinea	Africa	2013	5.094	58.21649
65	GMB	Gambia, The	Africa	2013	5.751	59.99927
66	GNB	Guinea-Bissau	Africa	2013	4.906	54.83841
67	GNQ	Equatorial Guinea	Africa	2013	4.924	57.29083
68	GRC	Greece	Europe	2013	1.290	80.63415
69	GRD	Grenada	The Americas	2013	2.171	73.19356
70	GTM	Guatemala	The Americas	2013	3.263	71.48639
71	GUM	Guam	Oceania	2013	2.406	78.87251

70	GTM	Guatemala	The Americas	2013	3.263	71.48639
71	GUM	Guam	Oceania	2013	2.406	78.87251
72	GUY	Guyana	The Americas	2013	2.585	66.31002
73	HKG	Hong Kong SAR, China	Asia	2013	1.124	83.83171
74	HND	Honduras	The Americas	2013	2.442	72.94285
75	HRV	Croatia	Europe	2013	1.510	77.12683
76	HTI	Haiti	The Americas	2013	3.098	62.40115
77	HUN	Hungary	Europe	2013	1.340	75.26829
78	IDN	Indonesia	Asia	2013	2.484	68.70461
79	IND	India	Asia	2013	2.465	67.66041
80	IRL	Ireland	Europe	2013	2.010	81.04390
81	IRN	Iran, Islamic Rep.	Middle East	2013	1.726	75.12598
82	IRQ	Iraq	Middle East	2013	4.026	69.47168
83	ISL	Iceland	Europe	2013	2.040	83.11707
84	ITA	Italy	Europe	2013	1.430	82.29024
85	JAM	Jamaica	The Americas	2013	2.260	73.46893
86	JOR	Jordan	Middle East	2013	3.244	73.90141
87	JPN	Japan	Asia	2013	1.430	83.33195
88	KAZ	Kazakhstan	Asia	2013	2.640	70.45000
89	KEN	Kenya	Africa	2013	4.406	60.95378
90	KGZ	Kyrgyz Republic	Asia	2013	3.200	70.20244
91	KHM	Cambodia	Asia	2013	2.683	67.77205
92	KIR	Kiribati	Oceania	2013	3.765	65.76659
93	KOR	Korea, Rep.	Asia	2013	1.187	81.45976
94	KWT	Kuwait	Middle East	2013	2.600	74.46276
95	LAO	Lao PDR	Asia	2013	3.063	65.68724
96	LBN	Lebanon	Middle East	2013	1.495	80.12888
97	LBR	Liberia	Africa	2013	4.793	60.52039
98	LBY	Libya	Africa	2013	2.507	71.65768
99	LCA	St. Lucia	The Americas	2013	1.913	74.91271
100	LKA	Sri Lanka	Asia	2013	2.339	74.24029
101	LSO	Lesotho	Africa	2013	3.222	49.33146
102	LTU	Lithuania	Europe	2013	1.600	74.16341
103	LUX	Luxembourg	Europe	2013	1.570	81.79756
104	LVA	Latvia	Europe	2013	1.440	73.98049
105	MAC	Macao SAR, China	Asia	2013	1.204	80.33915
106	MAR	Morocco	Africa	2013	2.535	73.70905
107	MDA	Moldova	Europe	2013	1.456	68.81151

106	MAR	Morocco	Africa	2013	2.535	73.70905
107	MDA	Moldova	Europe	2013	1.456	68.81151
108	MDG	Madagascar	Africa	2013	4.468	64.67390
109	MDV	Maldives	Asia	2013	2.152	76.60261
110	MEX	Mexico	The Americas	2013	2.272	76.53266
111	MKD	Macedonia, FYR	Europe	2013	1.511	75.18705
112	MLI	Mali	Africa	2013	6.314	57.53520
113	MLT	Malta	Europe	2013	1.430	80.74634
114	MMR	Myanmar	Asia	2013	2.239	65.65410
115	MNE	Montenegro	Europe	2013	1.666	74.75837
116	MNG	Mongolia	Asia	2013	2.657	69.06180
117	MOZ	Mozambique	Africa	2013	5.418	54.64151
118	MRT	Mauritania	Africa	2013	4.662	62.80271
119	MUS	Mauritius	Africa	2013	1.440	74.46000
120	MWI	Malawi	Africa	2013	5.220	61.46600
121	MYS	Malaysia	Asia	2013	1.956	74.56751
122	NAM	Namibia	Africa	2013	3.560	64.34388
123	NCL	New Caledonia	Oceania	2013	2.280	77.12195
124	NER	Niger	Africa	2013	7.623	60.82815
125	NGA	Nigeria	Africa	2013	5.707	52.44215
126	NIC	Nicaragua	The Americas	2013	2.300	74.51476
127	NLD	Netherlands	Europe	2013	1.720	81.10488
128	NOR	Norway	Europe	2013	1.850	81.45122
129	NPL	Nepal	Asia	2013	2.292	69.22200
130	NZL	New Zealand	Oceania	2013	1.950	81.40732
131	OMN	Oman	Middle East	2013	2.823	76.84105
132	PAK	Pakistan	Asia	2013	3.682	65.96368
133	PAN	Panama	The Americas	2013	2.465	77.41922
134	PER	Peru	The Americas	2013	2.480	74.28385
135	PHL	Philippines	Asia	2013	3.011	68.13156
136	PNG	Papua New Guinea	Oceania	2013	3.812	62.44917
137	POL	Poland	Europe	2013	1.300	76.84878
138	PRI	Puerto Rico	The Americas	2013	1.636	78.71120
139	PRT	Portugal	Europe	2013	1.280	80.37317
140	PRY	Paraguay	The Americas	2013	2.581	72.79917
141	PYF	French Polynesia	Oceania	2013	2.059	76.33407
142	QAT	Qatar	Middle East	2013	2.043	78.41849
143	ROU	Romania	Europe	2013	1.530	74.46341

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199     PHL                     Philippines           Asia 2013     3.011       66.19190
136     PNG      Papua New Guinea        Oceania 2013     3.812       62.44917
137     POL                  Poland         Europe 2013     1.300       76.84878
138     PRI             Puerto Rico The Americas 2013     1.636       78.71120
139     PRT                Portugal         Europe 2013     1.280       80.37317
140     PRY                Paraguay The Americas 2013     2.581       72.79917
141     PYF       French Polynesia        Oceania 2013     2.059       76.33407
142     QAT                   Qatar    Middle East 2013     2.043       78.41849
143     ROU                 Romania         Europe 2013     1.530       74.46341
144     RUS      Russian Federation         Europe 2013     1.700       71.07317
145     RWA                  Rwanda         Africa 2013     4.012       63.39483
146     SAU            Saudi Arabia    Middle East 2013     2.818       74.17763
147     SDN                   Sudan         Africa 2013     4.421       63.16705
148     SEN                 Senegal         Africa 2013     5.134       65.87876
149     SGP               Singapore           Asia 2013     1.190       82.34634
150     SLB         Solomon Islands        Oceania 2013     4.031       67.71893
151     SLE            Sierra Leone         Africa 2013     4.746       50.36312
152     SLV             El Salvador The Americas 2013     1.958       72.49815
153     SOM                 Somalia         Africa 2013     6.565       55.02302
154     SSD             South Sudan         Africa 2013     5.108       55.22090
155     STP   Sao Tome and Principe         Africa 2013     4.634       66.25951
156     SUR                Suriname The Americas 2013     2.386       70.99000
157     SVK         Slovak Republic         Europe 2013     1.340       76.26098
158     SVN                Slovenia         Europe 2013     1.580       80.27805
159     SWE                  Sweden         Europe 2013     1.910       81.70488
160     SWZ               Swaziland         Africa 2013     3.334       48.93793
161     SYR     Syrian Arab Republic    Middle East 2013     2.964       74.71578
162     TCD                    Chad         Africa 2013     6.264       51.19149
163     TGO                    Togo         Africa 2013     4.655       59.13237
164     THA                Thailand           Asia 2013     1.524       74.24693
165     TJK              Tajikistan           Asia 2013     3.514       69.40017
166     TKM            Turkmenistan           Asia 2013     2.326       65.45656
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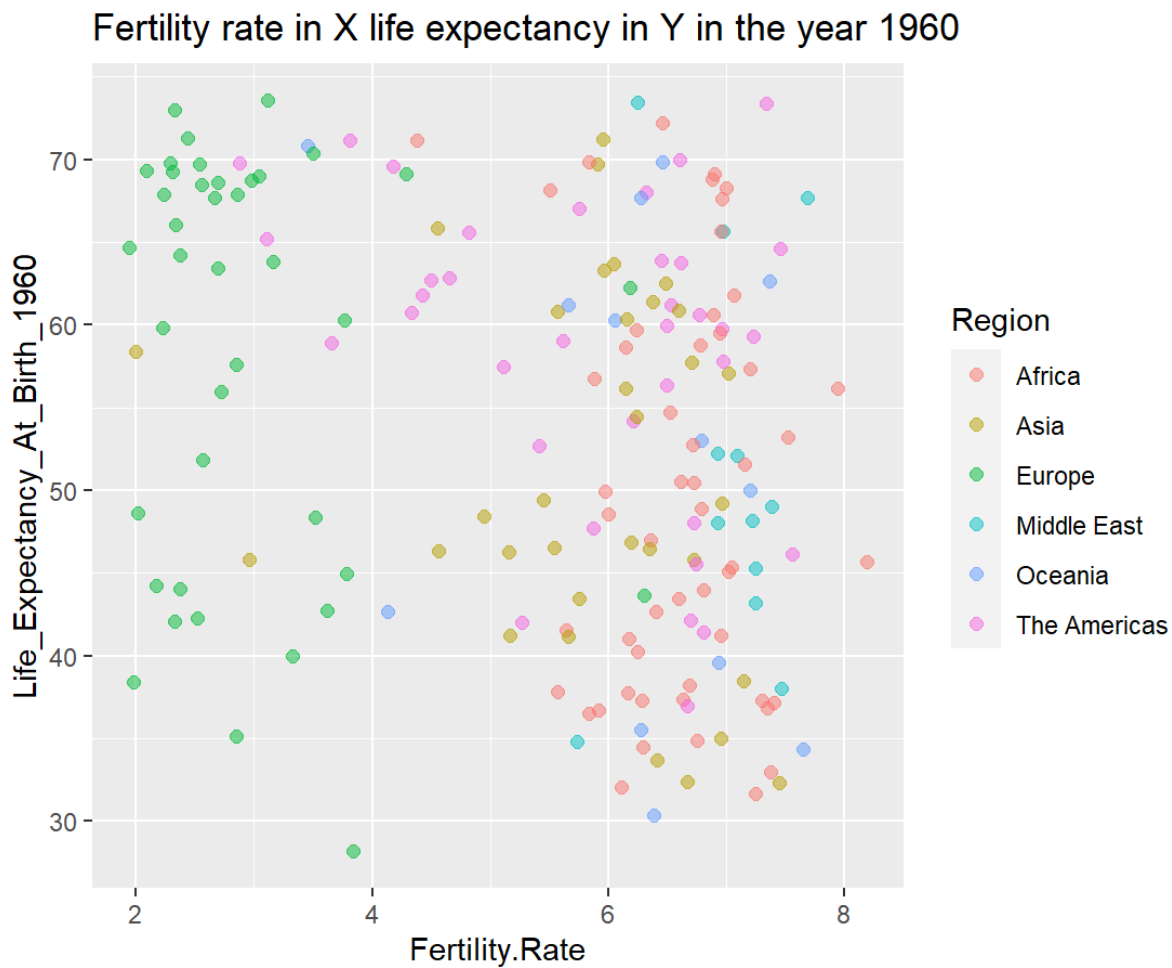
#plots // Gráficas #Year 1960

Fertility rate in X life expectancy in Y in the year 1960

#Year 2013

Fertility rate in X life expectancy in Y in the year 2013

Conclusión:

Alicia Pérez : With this evaluative practice I learned a little more about data management in Rstudio, since I had not handled it completely, I find it interesting how it makes the graphs and also the coding is not very complicated.

Erwin Howard :

I found the question of comparing both the years 1930 and 2013 interesting and checking that the rate of fertility and life expectancy changes over the years, in a matter of "R" it is not so complicated to understand how it works and it is interesting how do you do the graphs

GitHub:

https://github.com/Aliciap26/MINERIA-DATOS/tree/Unit-1/Evaluation

Video: https://youtu.be/3OYhQbGTxz8