

# Untitled

## R Markdown

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When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
install.packages("dplyr") library(dplyr)
```

```
getwd()
```

```
setwd("/Users/ishika/Documents/GitHub/64060_-inisha") # to set working directory.
```

```
getwd() #To check present working directory
```

```
## [1] "/Users/ishika/Documents/GitHub/64060_-inisha"
```

```
Assign <-read.csv("Book1.csv") #I have saved the data from excel in the data frame named Assign. I will  
Assign
```

##	Region	Country
## 1	Europe	Russia
## 2	Sub-Saharan Africa	Rwanda
## 3	Australia and Oceania	Australia
## 4	Asia	Brunei
## 5	Europe	Bulgaria
## 6	Sub-Saharan Africa	Mauritania
## 7	Sub-Saharan Africa	Sierra Leone
## 8	Sub-Saharan Africa	Cameroon
## 9	Europe	Lithuania
## 10	Asia	Turkmenistan
## 11	Sub-Saharan Africa	Sierra Leone
## 12	Middle East and North Africa	Azerbaijan
## 13	Sub-Saharan Africa	Angola
## 14	Central America and the Caribbean	Honduras
## 15	Asia	Turkmenistan
## 16	Sub-Saharan Africa	The Gambia
## 17	Asia	Myanmar
## 18	Europe	United Kingdom
## 19	North America	Mexico
## 20	Europe	Spain
## 21	Sub-Saharan Africa	Mozambique
## 22	Australia and Oceania	East Timor
## 23	Sub-Saharan Africa	The Gambia
## 24	Asia	Sri Lanka
## 25	Europe	France

## 26	Europe	Switzerland
## 27	Middle East and North Africa	Azerbaijan
## 28	Europe	Iceland
## 29	Europe	Austria
## 30	Sub-Saharan Africa	Djibouti
## 31	Central America and the Caribbean	Haiti
## 32	Sub-Saharan Africa	Rwanda
## 33	Middle East and North Africa	Pakistan
## 34	Australia and Oceania	Samoa
## 35	Middle East and North Africa	Iran
## 36	Europe	Romania
## 37	Australia and Oceania	Tuvalu
## 38	Australia and Oceania	Solomon Islands
## 39	Europe	Norway
## 40	Europe	Portugal
## 41	Europe	San Marino
## 42	Europe	Monaco
## 43	Sub-Saharan Africa	The Gambia
## 44	Central America and the Caribbean	Grenada
## 45	Sub-Saharan Africa	Senegal
## 46	Sub-Saharan Africa	The Gambia
## 47	Sub-Saharan Africa	Comoros
## 48	Middle East and North Africa	Saudi Arabia
## 49	Australia and Oceania	Australia
## 50	Sub-Saharan Africa	Djibouti
## 51	Central America and the Caribbean	Honduras
## 52	Sub-Saharan Africa	Djibouti
## 53	Sub-Saharan Africa	Zambia
## 54	Sub-Saharan Africa	Burkina Faso
## 55	Asia	Kyrgyzstan
## 56	Europe	Slovakia
## 57	Asia	Laos
## 58	Sub-Saharan Africa	Kenya
## 59	Sub-Saharan Africa	Sierra Leone
## 60	Sub-Saharan Africa	Republic of the Congo
## 61	Asia	Mongolia
## 62	Europe	Moldova
## 63	Sub-Saharan Africa	South Sudan
## 64	Central America and the Caribbean	Costa Rica
## 65	Sub-Saharan Africa	Niger
## 66	Europe	Switzerland
## 67	Sub-Saharan Africa	Gabon
## 68	North America	Mexico
## 69	North America	Mexico
## 70	Sub-Saharan Africa	Cape Verde
## 71	Asia	Bangladesh
## 72	Europe	Bulgaria
## 73	Asia	Myanmar
## 74	Europe	Macedonia
## 75	Europe	Albania
## 76	Sub-Saharan Africa	Cote d'Ivoire
## 77	Australia and Oceania	Fiji
## 78	Middle East and North Africa	Libya
## 79	Central America and the Caribbean	Belize

## 80	Sub-Saharan Africa	Madagascar				
## 81	Middle East and North Africa	Lebanon				
## 82	Sub-Saharan Africa	Mali				
## 83	Sub-Saharan Africa	Cameroon				
## 84	Europe	Norway				
## 85	Sub-Saharan Africa	Democratic Republic of the Congo				
## 86	Australia and Oceania	Federated States of Micronesia				
## 87	Sub-Saharan Africa	Sao Tome and Principe				
## 88	Europe	Slovenia				
## 89	Australia and Oceania	Australia				
## 90	Central America and the Caribbean	Nicaragua				
## 91	Sub-Saharan Africa	Sao Tome and Principe				
## 92	Australia and Oceania	New Zealand				
## 93	Australia and Oceania	Kiribati				
## 94	Sub-Saharan Africa	Mali				
## 95	Middle East and North Africa	Syria				
## 96	Sub-Saharan Africa	Lesotho				
## 97	Sub-Saharan Africa	Sao Tome and Principe				
## 98	Middle East and North Africa	Libya				
## 99	Middle East and North Africa	Kuwait				
## 100	Asia	Malaysia				
##	Item.Type	Sales.Channel	Order.Priority	Order.Date	Order.ID	Ship.Date
## 1	Office Supplies	Offline	L	5/2/14	341417157	5/8/14
## 2	Office Supplies	Offline	L	2/1/13	115456712	2/6/13
## 3	Office Supplies	Online	C	10/27/15	158535134	11/25/15
## 4	Office Supplies	Online	L	4/1/12	320009267	5/8/12
## 5	Office Supplies	Online	M	2/16/12	189965903	2/28/12
## 6	Office Supplies	Offline	C	1/11/12	837559306	1/13/12
## 7	Office Supplies	Offline	M	11/26/11	441888415	1/7/12
## 8	Office Supplies	Online	M	11/7/11	177636754	11/15/11
## 9	Office Supplies	Offline	H	10/24/10	166460740	11/17/10
## 10	Office Supplies	Online	M	4/23/13	462405812	5/20/13
## 11	Office Supplies	Offline	H	12/6/16	621386563	12/14/16
## 12	Office Supplies	Online	M	6/13/12	423331391	7/24/12
## 13	Household	Offline	M	4/23/11	135425221	4/27/11
## 14	Household	Offline	H	2/8/17	522840487	2/13/17
## 15	Household	Offline	L	12/30/10	441619336	1/20/11
## 16	Household	Offline	L	5/26/12	886494815	6/9/12
## 17	Household	Offline	H	1/16/15	177713572	3/1/15
## 18	Household	Online	L	1/5/12	955357205	2/14/12
## 19	Household	Offline	C	11/6/14	986435210	12/12/14
## 20	Household	Offline	L	10/21/12	213487374	11/30/12
## 21	Household	Offline	L	2/10/12	665095412	2/15/12
## 22	Meat	Online	L	7/31/12	322067916	9/11/12
## 23	Meat	Online	M	1/14/17	825304400	1/23/17
## 24	Cosmetics	Offline	M	11/19/16	419123971	12/18/16
## 25	Cosmetics	Online	H	5/22/17	898523128	6/5/17
## 26	Cosmetics	Offline	M	9/17/12	249693334	10/20/12
## 27	Cosmetics	Online	M	2/6/10	382392299	2/25/10
## 28	Cosmetics	Online	C	12/31/16	331438481	12/31/16
## 29	Cosmetics	Offline	H	2/23/15	868214595	3/2/15
## 30	Cosmetics	Offline	H	4/7/14	259353148	4/19/14
## 31	Cosmetics	Offline	H	10/13/13	505716836	11/16/13
## 32	Cosmetics	Offline	H	10/11/13	699358165	11/25/13

## 33	Cosmetics	Offline	L	7/5/13	231145322	8/16/13
## 34	Cosmetics	Online	H	7/20/13	670854651	8/7/13
## 35	Cosmetics	Online	H	11/15/16	286959302	12/8/16
## 36	Cosmetics	Online	H	11/26/10	660643374	12/25/10
## 37	Baby Food	Offline	H	5/28/10	669165933	6/27/10
## 38	Baby Food	Online	C	2/4/15	547995746	2/21/15
## 39	Baby Food	Online	L	5/14/14	819028031	6/28/14
## 40	Baby Food	Online	H	7/31/15	860673511	9/3/15
## 41	Baby Food	Online	L	6/26/13	569662845	7/1/13
## 42	Baby Food	Offline	H	5/29/12	688288152	6/2/12
## 43	Baby Food	Offline	M	2/3/14	494747245	3/20/14
## 44	Cereal	Online	C	8/22/12	963881480	9/15/12
## 45	Cereal	Online	H	4/18/14	616607081	5/30/14
## 46	Cereal	Offline	H	6/7/12	994022214	6/8/12
## 47	Cereal	Offline	H	3/29/16	902102267	4/29/16
## 48	Cereal	Online	M	3/25/13	844530045	3/28/13
## 49	Cereal	Offline	H	6/9/13	450563752	7/2/13
## 50	Cereal	Online	H	5/20/17	555990016	6/17/17
## 51	Snacks	Online	L	6/30/16	795490682	7/26/16
## 52	Snacks	Online	M	2/25/17	756274640	2/25/17
## 53	Snacks	Online	L	1/4/11	122583663	1/5/11
## 54	Vegetables	Online	H	7/17/12	871543967	7/27/12
## 55	Vegetables	Online	H	6/24/11	814711606	7/12/11
## 56	Vegetables	Online	H	10/6/12	759224212	11/10/12
## 57	Vegetables	Offline	C	9/15/11	789176547	10/23/11
## 58	Vegetables	Online	L	3/18/12	827844560	4/7/12
## 59	Vegetables	Offline	C	6/1/16	728815257	6/29/16
## 60	Personal Care	Offline	M	7/14/15	770463311	8/25/15
## 61	Personal Care	Offline	C	2/19/14	832401311	2/23/14
## 62	Personal Care	Online	L	5/7/16	740147912	5/10/16
## 63	Personal Care	Offline	C	12/29/13	406502997	1/28/14
## 64	Personal Care	Offline	L	5/8/17	456767165	5/21/17
## 65	Personal Care	Online	H	3/11/17	699285638	3/28/17
## 66	Personal Care	Online	M	12/23/10	617667090	1/31/11
## 67	Personal Care	Offline	L	7/8/12	228944623	7/9/12
## 68	Personal Care	Offline	L	2/17/12	430915820	3/20/12
## 69	Personal Care	Offline	M	7/30/15	559427106	8/8/15
## 70	Clothes	Offline	H	8/2/14	939825713	8/19/14
## 71	Clothes	Online	L	1/13/17	187310731	3/1/17
## 72	Clothes	Online	M	4/23/12	972292029	6/3/12
## 73	Clothes	Online	H	11/14/15	223359620	11/18/15
## 74	Clothes	Offline	C	10/14/14	787399423	11/14/14
## 75	Clothes	Online	C	2/2/10	385383069	3/18/10
## 76	Clothes	Online	C	6/8/12	114606559	6/27/12
## 77	Clothes	Offline	C	6/30/10	647876489	8/1/10
## 78	Clothes	Offline	H	10/30/10	705784308	11/17/10
## 79	Clothes	Offline	M	7/25/16	807025039	9/7/16
## 80	Clothes	Offline	L	4/25/15	610425555	5/28/15
## 81	Clothes	Online	L	9/18/12	663110148	10/8/12
## 82	Clothes	Online	M	7/26/11	512878119	9/3/11
## 83	Beverages	Offline	C	4/1/15	519820964	4/18/15
## 84	Beverages	Offline	C	7/18/14	435608613	7/30/14
## 85	Beverages	Online	C	5/26/11	585920464	7/15/11
## 86	Beverages	Online	C	10/28/14	217221009	11/15/14

## 87	Beverages	Offline	C	1/16/11	180283772	1/21/11
## 88	Beverages	Offline	C	10/23/16	345718562	11/25/16
## 89	Beverages	Offline	H	7/7/14	240470397	7/11/14
## 90	Beverages	Offline	C	2/8/11	963392674	3/21/11
## 91	Fruits	Online	C	6/20/14	514321792	7/5/14
## 92	Fruits	Online	H	9/8/14	142278373	10/4/14
## 93	Fruits	Online	M	10/13/14	347140347	11/10/14
## 94	Fruits	Online	L	5/7/10	686048400	5/10/10
## 95	Fruits	Online	L	11/22/11	162052476	12/3/11
## 96	Fruits	Online	L	8/18/13	918419539	9/18/13
## 97	Fruits	Offline	H	9/17/13	508980977	10/24/13
## 98	Fruits	Online	L	8/14/15	816200339	9/30/15
## 99	Fruits	Online	M	4/30/12	513417565	5/18/12
## 100	Fruits	Offline	L	11/11/11	810711038	12/28/11

##	Units.Sold	Unit.Price	Unit.Cost	Total.Revenue	Total.Cost	Total.Profit
## 1	1779	651.21	524.96	1158502.59	933903.84	224598.75
## 2	5062	651.21	524.96	3296425.02	2657347.52	639077.50
## 3	2924	651.21	524.96	1904138.04	1534983.04	369155.00
## 4	6708	651.21	524.96	4368316.68	3521431.68	846885.00
## 5	3987	651.21	524.96	2596374.27	2093015.52	503358.75
## 6	1266	651.21	524.96	824431.86	664599.36	159832.50
## 7	3457	651.21	524.96	2251232.97	1814786.72	436446.25
## 8	5518	651.21	524.96	3593376.78	2896729.28	696647.50
## 9	8287	651.21	524.96	5396577.27	4350343.52	1046233.75
## 10	5010	651.21	524.96	3262562.10	2630049.60	632512.50
## 11	948	651.21	524.96	617347.08	497662.08	119685.00
## 12	2021	651.21	524.96	1316095.41	1060944.16	255151.25
## 13	4187	668.27	502.54	2798046.49	2104134.98	693911.51
## 14	8974	668.27	502.54	5997054.98	4509793.96	1487261.02
## 15	3830	668.27	502.54	2559474.10	1924728.20	634745.90
## 16	2370	668.27	502.54	1583799.90	1191019.80	392780.10
## 17	8250	668.27	502.54	5513227.50	4145955.00	1367272.50
## 18	282	668.27	502.54	188452.14	141716.28	46735.86
## 19	6954	668.27	502.54	4647149.58	3494663.16	1152486.42
## 20	4513	668.27	502.54	3015902.51	2267963.02	747939.49
## 21	5367	668.27	502.54	3586605.09	2697132.18	889472.91
## 22	5908	421.89	364.69	2492526.12	2154588.52	337937.60
## 23	4767	421.89	364.69	2011149.63	1738477.23	272672.40
## 24	6952	437.20	263.33	3039414.40	1830670.16	1208744.24
## 25	1815	437.20	263.33	793518.00	477943.95	315574.05
## 26	8661	437.20	263.33	3786589.20	2280701.13	1505888.07
## 27	7234	437.20	263.33	3162704.80	1904929.22	1257775.58
## 28	8867	437.20	263.33	3876652.40	2334947.11	1541705.29
## 29	2847	437.20	263.33	1244708.40	749700.51	495007.89
## 30	7215	437.20	263.33	3154398.00	1899925.95	1254472.05
## 31	1705	437.20	263.33	745426.00	448977.65	296448.35
## 32	4477	437.20	263.33	1957344.40	1178928.41	778415.99
## 33	9892	437.20	263.33	4324782.40	2604860.36	1719922.04
## 34	9654	437.20	263.33	4220728.80	2542187.82	1678540.98
## 35	6489	437.20	263.33	2836990.80	1708748.37	1128242.43
## 36	7910	437.20	263.33	3458252.00	2082940.30	1375311.70
## 37	9925	255.28	159.42	2533654.00	1582243.50	951410.50
## 38	2974	255.28	159.42	759202.72	474115.08	285087.64
## 39	7450	255.28	159.42	1901836.00	1187679.00	714157.00

## 40	1273	255.28	159.42	324971.44	202941.66	122029.78
## 41	4750	255.28	159.42	1212580.00	757245.00	455335.00
## 42	8614	255.28	159.42	2198981.92	1373243.88	825738.04
## 43	5559	255.28	159.42	1419101.52	886215.78	532885.74
## 44	2804	205.70	117.11	576782.80	328376.44	248406.36
## 45	6593	205.70	117.11	1356180.10	772106.23	584073.87
## 46	2117	205.70	117.11	435466.90	247921.87	187545.03
## 47	962	205.70	117.11	197883.40	112659.82	85223.58
## 48	4063	205.70	117.11	835759.10	475817.93	359941.17
## 49	682	205.70	117.11	140287.40	79869.02	60418.38
## 50	8656	205.70	117.11	1780539.20	1013704.16	766835.04
## 51	2225	152.58	97.44	339490.50	216804.00	122686.50
## 52	7327	152.58	97.44	1117953.66	713942.88	404010.78
## 53	4085	152.58	97.44	623289.30	398042.40	225246.90
## 54	8082	154.06	90.93	1245112.92	734896.26	510216.66
## 55	124	154.06	90.93	19103.44	11275.32	7828.12
## 56	171	154.06	90.93	26344.26	15549.03	10795.23
## 57	3732	154.06	90.93	574951.92	339350.76	235601.16
## 58	6457	154.06	90.93	994765.42	587135.01	407630.41
## 59	1485	154.06	90.93	228779.10	135031.05	93748.05
## 60	6070	81.73	56.67	496101.10	343986.90	152114.20
## 61	4901	81.73	56.67	400558.73	277739.67	122819.06
## 62	5070	81.73	56.67	414371.10	287316.90	127054.20
## 63	2125	81.73	56.67	173676.25	120423.75	53252.50
## 64	6409	81.73	56.67	523807.57	363198.03	160609.54
## 65	3015	81.73	56.67	246415.95	170860.05	75555.90
## 66	273	81.73	56.67	22312.29	15470.91	6841.38
## 67	8656	81.73	56.67	707454.88	490535.52	216919.36
## 68	6422	81.73	56.67	524870.06	363934.74	160935.32
## 69	5767	81.73	56.67	471336.91	326815.89	144521.02
## 70	4168	109.28	35.84	455479.04	149381.12	306097.92
## 71	8263	109.28	35.84	902980.64	296145.92	606834.72
## 72	1673	109.28	35.84	182825.44	59960.32	122865.12
## 73	5930	109.28	35.84	648030.40	212531.20	435499.20
## 74	7842	109.28	35.84	856973.76	281057.28	575916.48
## 75	2269	109.28	35.84	247956.32	81320.96	166635.36
## 76	3482	109.28	35.84	380512.96	124794.88	255718.08
## 77	9905	109.28	35.84	1082418.40	354995.20	727423.20
## 78	6116	109.28	35.84	668356.48	219197.44	449159.04
## 79	5498	109.28	35.84	600821.44	197048.32	403773.12
## 80	7342	109.28	35.84	802333.76	263137.28	539196.48
## 81	7884	109.28	35.84	861563.52	282562.56	579000.96
## 82	888	109.28	35.84	97040.64	31825.92	65214.72
## 83	5430	47.45	31.79	257653.50	172619.70	85033.80
## 84	5124	47.45	31.79	243133.80	162891.96	80241.84
## 85	5741	47.45	31.79	272410.45	182506.39	89904.06
## 86	9379	47.45	31.79	445033.55	298158.41	146875.14
## 87	8829	47.45	31.79	418936.05	280673.91	138262.14
## 88	4660	47.45	31.79	221117.00	148141.40	72975.60
## 89	9389	47.45	31.79	445508.05	298476.31	147031.74
## 90	8156	47.45	31.79	387002.20	259279.24	127722.96
## 91	8102	9.33	6.92	75591.66	56065.84	19525.82
## 92	2187	9.33	6.92	20404.71	15134.04	5270.67
## 93	5398	9.33	6.92	50363.34	37354.16	13009.18

```
## 94      5822      9.33      6.92      54319.26      40288.24      14031.02
## 95      3784      9.33      6.92      35304.72      26185.28      9119.44
## 96      9606      9.33      6.92      89623.98      66473.52      23150.46
## 97      7637      9.33      6.92      71253.21      52848.04      18405.17
## 98       673      9.33      6.92      6279.09      4657.16      1621.93
## 99       522      9.33      6.92      4870.26      3612.24      1258.02
## 100     6267      9.33      6.92      58471.11      43367.64      15103.47
```

```
summary(Assign) #Descriptice Analysis of the excel data
```

```
##      Region      Country      Item.Type      Sales.Channel
## Length:100      Length:100      Length:100      Length:100
## Class :character Class :character Class :character Class :character
## Mode  :character Mode  :character Mode  :character Mode  :character
##
##
##
## Order.Priority      Order.Date      Order.ID      Ship.Date
## Length:100      Length:100      Min. :114606559 Length:100
## Class :character Class :character 1st Qu.:338922488 Class :character
## Mode  :character Mode  :character Median :557708561 Mode  :character
##                                     Mean  :555020412
##                                     3rd Qu.:790755081
##                                     Max.  :994022214
## Units.Sold      Unit.Price      Unit.Cost      Total.Revenue
## Min. : 124      Min. : 9.33      Min. : 6.92      Min. : 4870
## 1st Qu.:2836      1st Qu.: 81.73      1st Qu.: 35.84      1st Qu.: 268721
## Median :5382      Median :179.88      Median :107.28      Median : 752314
## Mean :5129      Mean :276.76      Mean :191.05      Mean :1373488
## 3rd Qu.:7369      3rd Qu.:437.20      3rd Qu.:263.33      3rd Qu.:2212045
## Max. :9925      Max. :668.27      Max. :524.96      Max. :5997055
## Total.Cost      Total.Profit
## Min. : 3612      Min. : 1258
## 1st Qu.: 168868      1st Qu.: 121444
## Median : 363566      Median : 290768
## Mean : 931806      Mean : 441682
## 3rd Qu.:1613870      3rd Qu.: 635829
## Max. :4509794      Max. :1719922
```

```
summary(Assign$Total.Revenue) #Quantitative analysis for total revenue
```

```
##      Min. 1st Qu. Median      Mean 3rd Qu.      Max.
##      4870 268721 752314 1373488 2212045 5997055
```

```
Ftable <- table(Assign$Item.Type) #This is a categorical descriptive analysis
Ftable
```

```
##
##      Baby Food      Beverages      Cereal      Clothes      Cosmetics
##           7           8           7           13           13
##      Fruits      Household      Meat Office Supplies      Personal Care
##           10           9           2           12           10
```

```
##           Snacks           Vegetables
##              3              6
```

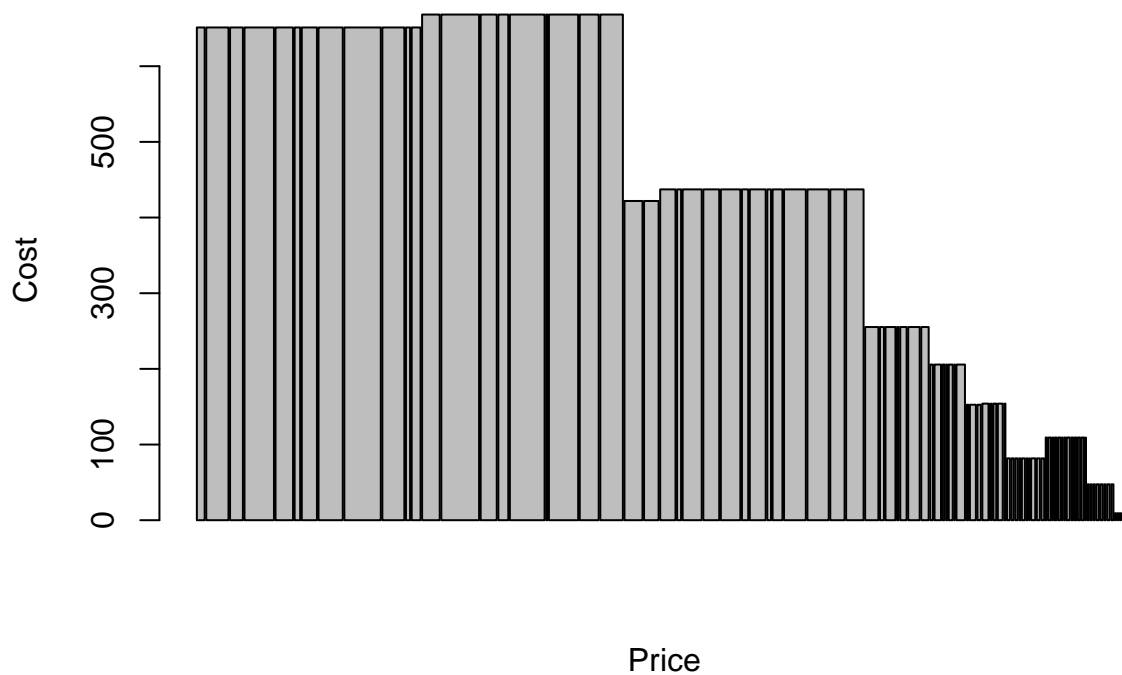
```
#filter (Assign, Country == "Angola" ) # Transforming data using filter function. Filter essentially re
summary(Assign$Unit.Price)
```

```
##      Min. 1st Qu.  Median      Mean 3rd Qu.      Max.
##      9.33   81.73  179.88  276.76  437.20  668.27
```

```
summary(log2(Assign$Unit.Price))
```

```
##      Min. 1st Qu.  Median      Mean 3rd Qu.      Max.
##      3.222   6.353   7.476   7.316   8.772   9.384
```

```
barplot(Assign$Unit.Price,Assign$Total.Cost,xlab="Price",ylab="Cost") # Displaying barplot for unit pri
```



```
plot(Assign$Unit.Price,Assign$Total.Cost) # scatter plot for unit price and Total cost.
```



