

WCG Dataset

WCG has provided data from one of their branches for the year 2018, detailing the operations of their 300-container fleet. The containers are available for lease periods of 1, 4, 8, and 16 weeks. The accompanying Excel sheet specifies weekly rates and demand for each lease duration, as well as the number of customer requests fulfilled for each type of lease.

The dataset contains a range of information as detailed below:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1																	
2	Num. of Containers	300					Decisions made by WCG 2018										
3	Initial Inventory	77.0															
4	Total Revenue	£679					Due to return based on decisions prior to week ending 1/7/2018										
5	(x£1000)																
6																	
7			Start of Week														
8	Week End	Week No	#Inventory				1-Week				4-Weeks			8-Weeks			
9					£/Day	Demand	Accepted	Returned	£/Day	Demand	Accepted	Returned	£/Day	Demand	Accepted	Returned	£/D
10	07/01/2018	1	77.0		CLOSED FOR HOLIDAY												
11	14/01/2018	2	102.0	26.0	£6.00	6	6	1.0	£5.40	4	4	10.0	£5.10	10	10	10.0	
12	21/01/2018	3	101.0	35.0	£9.00	10	10	6.0	£8.10	8	8	8.0	£7.65	8	8	6.0	
13	28/01/2018	4	95.0	31.0	£8.50	8	8	10.0	£7.65	9	9	9.0	£7.23	7	7	8.0	
14	04/02/2018	5	97.0	36.0	£7.50	7	7	8.0	£6.75	10	10	12.0	£6.38	6	6	7.0	
15	11/02/2018	6	91.0	34.0	£8.00	10	10	7.0	£7.20	6	6	4.0	£6.80	6	6	9.0	
16	18/02/2018	7	90.0	30.0	£7.50	6	6	10.0	£6.75	12	12	8.0	£6.38	6	4	10.0	
17	25/02/2018	8	92.0	20.0	£6.50	5	5	6.0	£5.85	5	5	9.0	£5.53	6	4	7.0	
18	04/03/2018	9	98.0	35.0	£9.00	7	7	5.0	£8.10	11	6	10.0	£7.65	12	11	3.0	
19	11/03/2018	10	92.0	33.0	£5.00	10	10	7.0	£4.50	8	7	6.0	£4.25	10	6	10.0	

- Column A (Week End) represents the date of the last day of 52 weeks of year 2018
- Column B (Week No) represents the number of week
- Column C (Start of Week #Inventory) represents the initial inventory level at the start of each week. The formula how to calculate the inventory is given in the Excel file.
- Column D represents the total number of requests that are accepted for all 1-week, 4-weeks, 8-weeks, and 16-weeks lease.
- Columns E, F, G, and H provide information on 1-week lease as follows:
 - Column E (£/Day) provides the daily price of leasing one container.
 - Column F (Demand) provides the demand for 1-week lease in each week of the year 2018.
 - Column G (Accepted) provides the number of requests for 1-week lease that are accepted in each week of the year 2018.
 - Column H (Returned) indicates the quantity of containers that have been returned at the end of their lease. Cells highlighted in orange represent the containers that were leased in the preceding year and have been returned during the corresponding week of the current year. For example, 1 container returned on week no 2 and this container is available for re-leasing on week 2.
- The rest of columns are similar to columns E, F, G, and H, for 4-weeks, 8-weeks, and 16-weeks lease cases.
- Fleet size (number of containers) is given in cell B2
- Total revenue of the year 2018 is given in cell B4
- Please note that the Excel file contains all formula on how some parameters are calculated. For instance, the initial available container inventory is given in cell B3. This cell also provides the formula how initial inventory is calculated). Please check the Excel file and analyse how some variables are calculated.