

Testing Case:

Test Number	Test Description	Success/Failure	Figure
1	User runs program via console, specifying the output file as 'output.xlsx'.	Success – Accounts for missing file extension.	Figure 1
2	'outfile' is inputted as file name, without file extension. Program adds extension.	Success – '.xlsx' is added.	Figure 2
3	Data obtained from REST api	Success	Figure 3
4	Total quantities calculated for each part.	Success	Figure 4
5	Part numbers and total quantities written to file, with correct columns.	Success	Figure 5

Figure 1

```
PS C:\Users\tbere\PycharmProjects\Task> python rollup.py output.xlsx
Beginning process...
Data saved at output.xlsx.
```

Figure 2

```
PS C:\Users\tbere\PycharmProjects\Task> python rollup.py outfile
Beginning process...
Data saved at outfile.xlsx.
PS C:\Users\tbere\PycharmProjects\Task>
```

Figure 3

	id	parent_part_id	part_id	quantity
0	0	NaN	2622	1
1	1	2622.0	2017	5
2	2	2622.0	3068	2
3	3	2622.0	3964	4
4	4	2483.0	112	5
5	5	2483.0	1933	3
6	6	4816.0	3875	1
7	7	4816.0	2605	5
25	25	2605.0	658	4
26	26	2605.0	4378	3
27	27	3682.0	445	4
28	28	4378.0	4646	1
29	29	1792.0	3833	2

Figure 4

	Part Number	Total Quantity
0	24-49705-F	1
1	24-50649-U	3
2	24-05105-E	4800
3	24-52128-B	3840
4	24-03009-T	960
5	24-08302-A	19200
6	24-33058-H	11520
7	24-69020-K	11520
8	24-34026-X	23040
9	24-13322-M	2304
10	24-91857-H	43200
11	24-71722-O	48
12	24-77135-L	576
13	24-44125-N	768
14	24-18807-Y	960
15	24-47208-Z	43200
16	24-85674-H	57600
17	24-56293-U	768
18	24-98210-P	11520
19	24-61836-N	960
20	24-01200-E	2880
21	24-21916-Z	192
22	24-52684-V	15360
23	24-41361-G	5760
24	24-10361-D	14400

Figure 5

	A	B
1	Part Number	Total Quantity
2	24-49705-F	1
3	24-50649-U	3
4	24-05105-E	4800
5	24-52128-B	3840
6	24-03009-T	960
7	24-08302-A	19200
8	24-33058-H	11520
9	24-69020-K	11520
10	24-34026-X	23040
11	24-13322-M	2304
12	24-91857-H	43200
13	24-71722-O	48
14	24-77135-L	576
15	24-44125-N	768
16	24-18807-Y	960
17	24-47208-Z	43200
18	24-85674-H	57600
19	24-56293-U	768
20	24-98210-P	11520
21	24-61836-N	960
22	24-01200-E	2880
23	24-21916-Z	192
24	24-52684-V	15360
25	24-41361-G	5760
26	24-10361-D	14400
27	24-40908-A	5760
28	24-47691-J	2304
29	24-80459-D	15
30	24-16499-Q	12
31	24-48534-U	15360