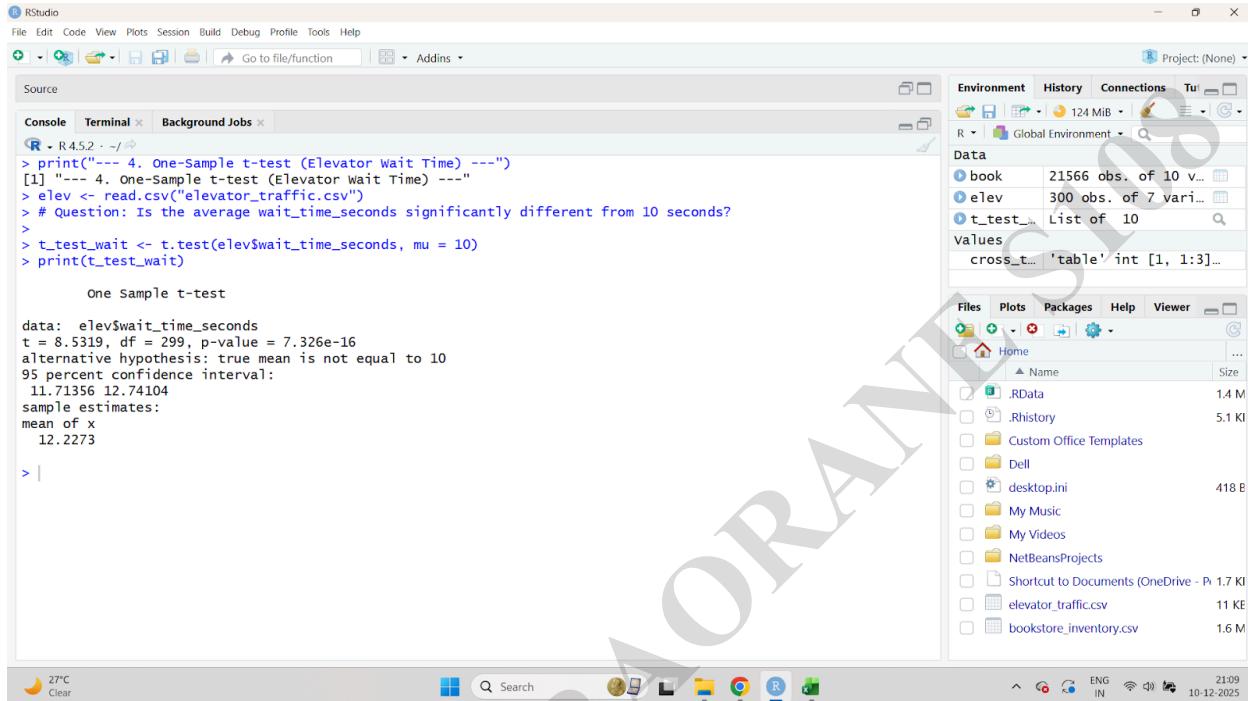


SHETH L.U.J & SIR M.V COLLEGE OF SCIENCE

SUBJECT : Data Analysis with SAS / SPSS /R

AIM : Performing one-sample t-tests using `t.test()` (R).

OUTPUT



RStudio interface showing the console output of a one-sample t-test:

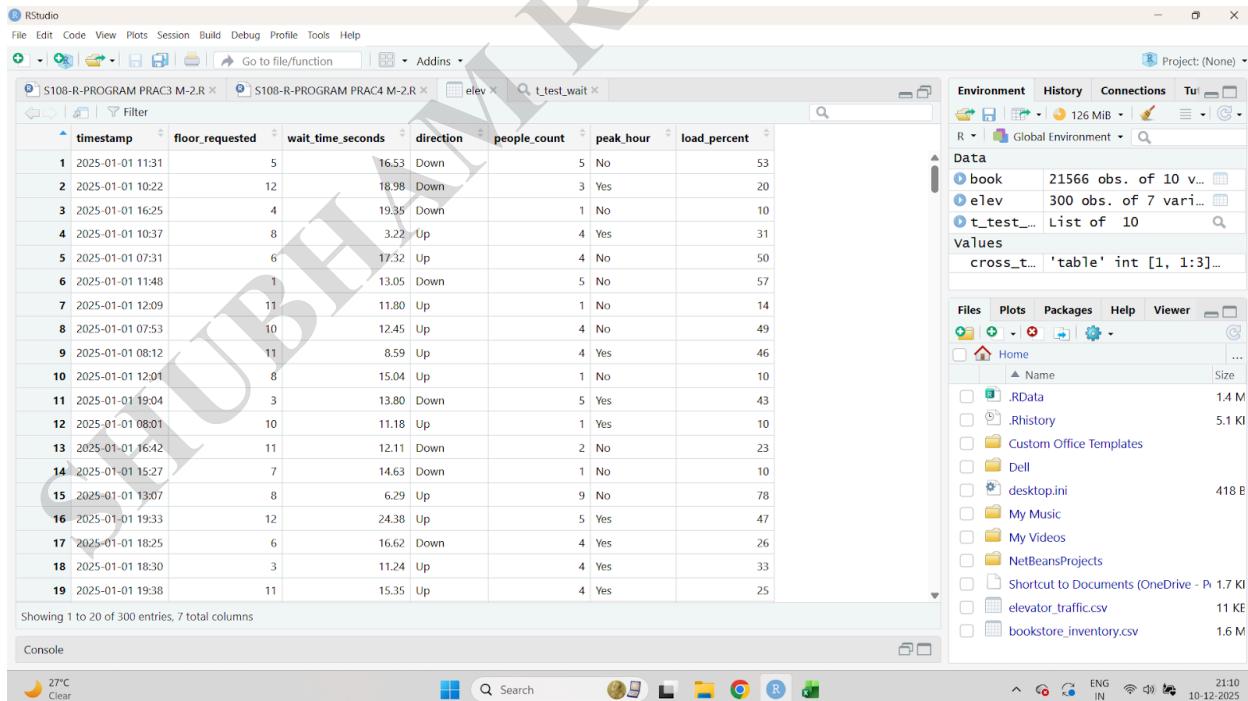
```

> print("---- 4. One-Sample t-test (Elevator Wait Time) ----")
[1] "---- 4. One-Sample t-test (Elevator Wait Time) ----"
> elev <- read.csv("elevator_traffic.csv")
> # Question: Is the average wait_time_seconds significantly different from 10 seconds?
>
> t_test_wait <- t.test(elev$wait_time_seconds, mu = 10)
> print(t_test_wait)

One Sample t-test

data: elev$wait_time_seconds
t = 8.5319, df = 299, p-value = 7.326e-16
alternative hypothesis: true mean is not equal to 10
95 percent confidence interval:
11.71356 12.74104
sample estimates:
mean of x
12.2273

```



RStudio interface showing the 'elev' data frame and its structure:

	timestamp	floor_requested	wait_time_seconds	direction	people_count	peak_hour	load_percent
1	2025-01-01 11:31	5	16.53	Down	5	No	53
2	2025-01-01 10:22	12	18.98	Down	3	Yes	20
3	2025-01-01 16:25	4	19.35	Down	1	No	10
4	2025-01-01 10:37	8	3.22	Up	4	Yes	31
5	2025-01-01 07:31	6	17.32	Up	4	No	50
6	2025-01-01 11:48	1	13.05	Down	5	No	57
7	2025-01-01 12:09	11	11.80	Up	1	No	14
8	2025-01-01 07:53	10	12.45	Up	4	No	49
9	2025-01-01 08:12	11	8.59	Up	4	Yes	46
10	2025-01-01 12:01	8	15.04	Up	1	No	10
11	2025-01-01 19:04	3	13.80	Down	5	Yes	43
12	2025-01-01 08:01	10	11.18	Up	1	Yes	10
13	2025-01-01 16:42	11	12.11	Down	2	No	23
14	2025-01-01 15:27	7	14.63	Down	1	No	10
15	2025-01-01 13:07	8	6.29	Up	9	No	78
16	2025-01-01 19:33	12	24.38	Up	5	Yes	47
17	2025-01-01 18:25	6	16.62	Down	4	Yes	26
18	2025-01-01 18:30	3	11.24	Up	4	Yes	33
19	2025-01-01 19:38	11	15.35	Up	4	Yes	25

Showing 1 to 20 of 300 entries, 7 total columns

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