

A Problem with Presidents

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Summary

In this exercise, we analyzed the lifespan of United States presidents. We formulated tables for the ten longest lived and shortest lived presidents. We also quantified the distribution of the presidents' longevity and generated a box-and-whiskers plot to illustrate the distribution. This data was calculated and analyzed in Python. The results are accurate as of October 9, 2023.

Longest Lived Presidents

	PRESIDENT	LIVED YEARS	LIVED MONTHS	LIVED DAYS
37	Jimmy Carter	99	1205	36167
39	George Bush	94	1150	34504
36	Gerald Ford	93	1137	34133
38	Ronald Reagan	93	1136	34088
1	John Adams	90	1103	33119
29	Herbert Hoover	90	1098	32943
31	Harry S. Truman	88	1079	32373
3	James Madison	85	1038	31150
2	Thomas Jefferson	83	1013	30397
35	Richard Nixon	81	989	29688

Shortest Lived Presidents

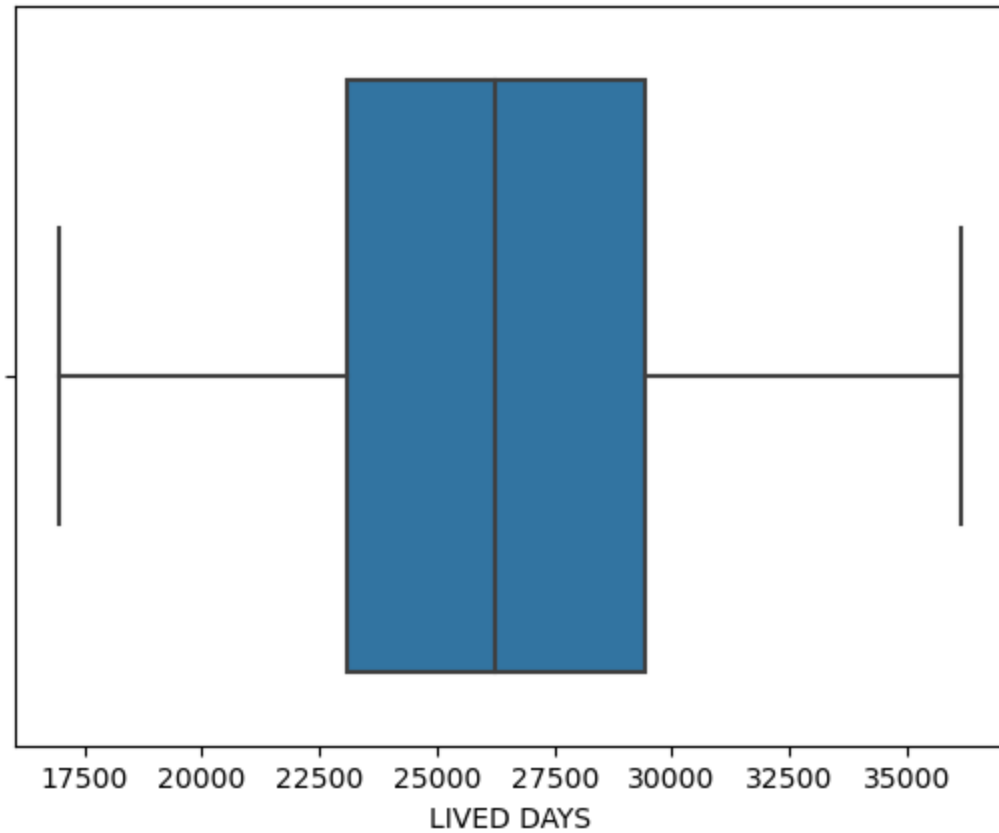
	PRESIDENT	LIVED YEARS	LIVED MONTHS	LIVED DAYS
33	John F. Kennedy	46	565	16978
19	James A. Garfield	49	606	18202
10	James K. Polk	53	652	19583
15	Abraham Lincoln	56	683	20516
27	Warren G. Harding	57	703	21091
20	Chester Arthur	57	695	20863

23	William McKinley	58	713	21412
24	Theodore Roosevelt	60	732	21985
28	Calvin Coolidge	60	736	22099
42	Barack Obama	62	757	22711

Distribution for lived_days

Mean	26463.0
Weighted Average	26463.0
Median	26227.0
Mode	16978.0
Min	16978.0
Max	36167.0
Standard Deviation	4609.0

Assuming that the presidents are weighted equally, the weighted average value is the same as the mean. No value in lived_days was repeated, so the algorithm chose the min value of 16978.0 as the mode. However, this value was not seen in the data any more than other values.



Conclusions

In this exercise, we have found that Jimmy Carter is the longest lived president at 36167 days. John F. Kennedy was the shortest lived president at only 16978 days. The mean lifespan is 26463 days, and the median lifespan is 26227 days. The standard deviation is 4609 days.