

# Python program to implement One Sample Z-test

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In [1]: #Name : Rajshri Kirandas Satpute
        #Year : 3rd year
        #Section : B
        #Roll No : 55
        #Date : 29/02/2024
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In [2]: #importing the required libraries
import pandas as pd
from scipy import stats
from statsmodels.stats import weightstats as stests
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In [3]: #Creating a dataset
data = [89,93,95,93,97,98,96,99,93,97,110,104,119,105,104,110,110,112,115,114]
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In [7]: #Performing the z-test
z_test,p_val = stests.ztest(data,x2 = None,value = 160)
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In [8]: print(p_val)
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2.417334226169332e-186

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In [9]: #Taking the threshold value as 0.05 or 5%
if p_val < 0.05:
    print("we are reject null hypothesis")
else:
    print("we are accept null hypothesis")
```

we are reject null hypothesis

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In [ ]:
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