#	Scenario	Assumption	Test	Python Function
1	Testing mean of one population	Normal Distribution of Population	One Sample t-test	ttest_1samp
2	Testing the difference of means in the paired samples	Normal Distribution of Population	Paired t-test	ttest_rel
3	Testing the difference of variances in 2 independent samples	Does not assume Normal Distribution	Bartlett's test	bartlett
4	Testing the difference of means in 2 independent samples	Normal Distribution of Populations	2 independent samples t-test	ttest_ind
5	Testing the difference of means in 2 independent samples	Does not assume Normal Distribution	Mann-Whitney's U test	mannwhitneyu
6	Testing difference in means between multiple populations	Normal Distribution of Populations	Analysis of Variance Test (ANOVA)	statsmodels.formula.api. ols & statsmodels.api.stats.ano va_lm
7	Testing the independence of attributes in a cross-table	Does not assume Normal Distribution	Chi-Square Test	stats.chi2_contingency