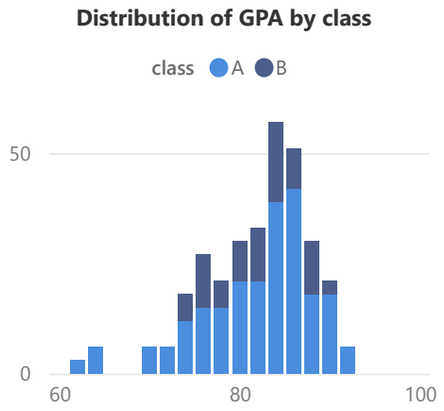
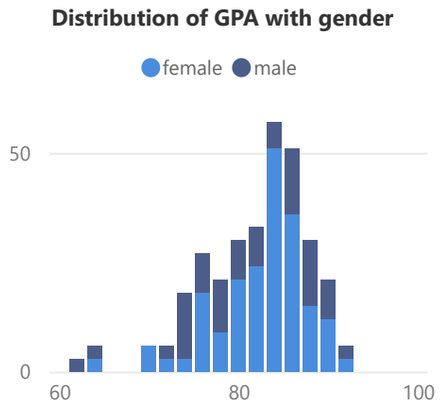
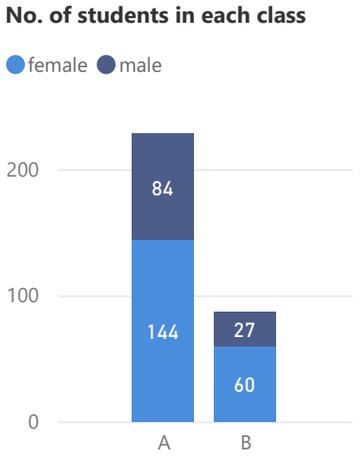
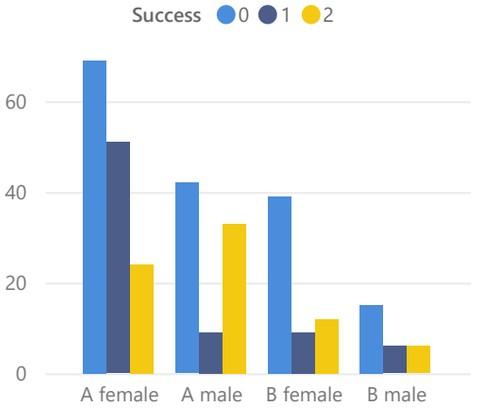
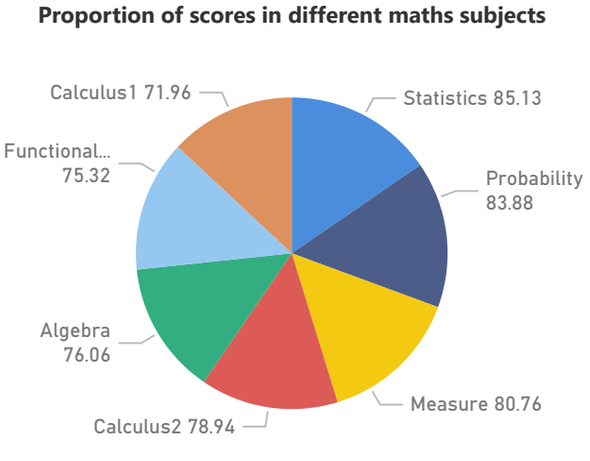
Student performance report





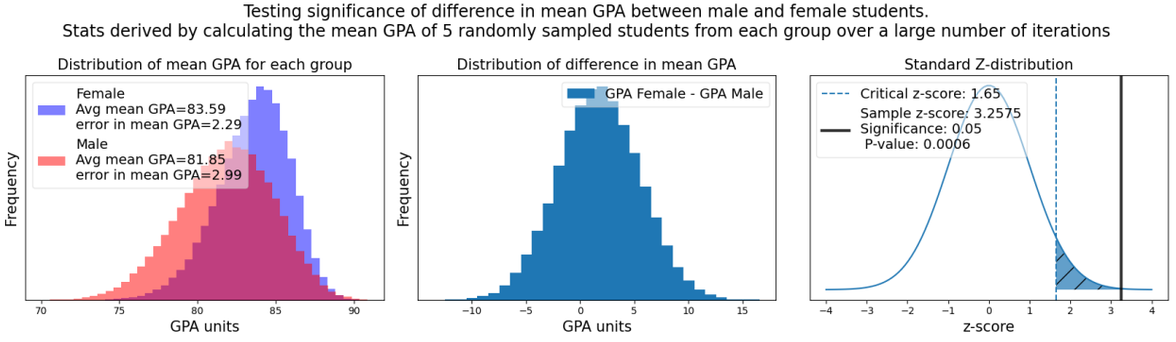


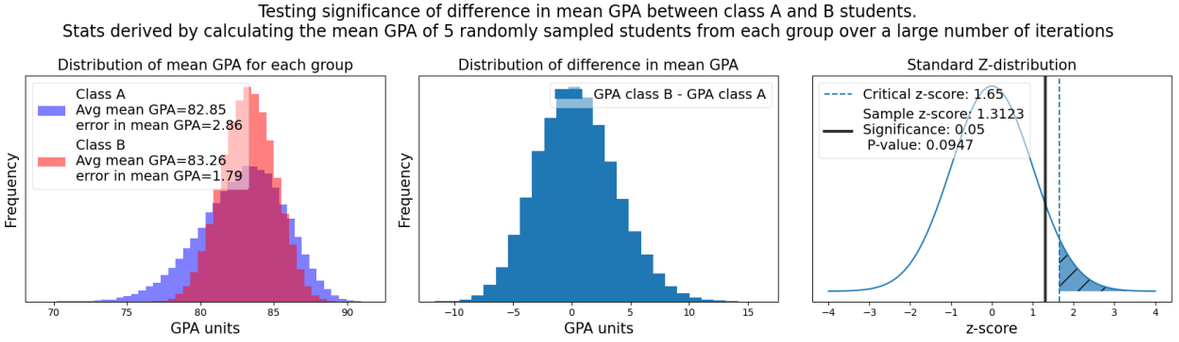




class	gender	Average of Algebra	Average of Calculus1	Average of Calculus2	Average of Statistics	Average of Probability	Average of Measure	Average of Functional_analysis	Average of GPA
A	female	75.44	71.27	80.79	85.73	83.38	81.46	76.75	83.66
B	female	76.70	68.75	78.50	83.90	86.80	80.80	75.75	83.32
A	male	76.79	75.14	74.75	84.11	82.71	79.39	72.39	81.45
B	male	75.67	72.89	83.11	87.89	83.67	81.22	75.89	83.09
Average		**76.06**	**71.96**	**78.94**	**85.13**	**83.88**	**80.76**	**75.32**	**82.96**

Testing the following 2 null hypotheses. 1. There is no statistically significant difference between the mean scores of female and male students ($H1_0$). And; 2. There is no statistically difference between the mean performance of class A and class B students ($H2_0$).





The figure above on the left shows that the sample z score lies beyond the critical decision score of 1.65. Therefore, with a 95% confidence level, we can reject the null hypothesis $H1_0$ that the average GPA between male and female students are statistically same. The figure on the right shows a sample z score lower than the critical score. We therefore do not reject the null hypothesis $H2_0$.