

## Experiment 6

### Report

1. Differentiate between population mean and sample mean in the context of Hypothesis Testing. What are these values in this experiment?
2. Step 3 assumes that standard deviation of sample proportion is given by  $\sqrt{p_0(1-p_0)/\text{size}}$ . Suggest a theoretical reason for this.
3. Most of the steps in this experiment are based on Z-Test? What other types of hypothesis testing are available and how do they differ from Z-Test? How would you interpret results in these other types of hypothesis testing?
4. Differentiate between Chi-square, Normal and t-distribution in terms of their density function graph and the machine learning applications in which they can be used?
5. Record your observations in step 7 and 8 in form of a table. Explain significance of p-value in light of your observations.