Topic 5:

I have coded with python 3.5.0 with Spyder IDE.

I took data with User_Score, Rating, Genre
From this we removed missing values and some unknown string ‘tbd’

Let's take Null Hypothesis as “action video game is highly rated among teens”

We made table as Teen, Non-Teen and Action, Non Action

Observed Table:

	Teens	Non-Teens
Action	7.1072	7.0228692
Non Action	7.34467975	7.05074508

Expected Table:

	Teens	Non-Teens
Action	7.15872127	6.97134792
Non Action	7.29315848	7.10226635

$$\chi^2 = \sum_{i=1}^{m}\sum_{j=1}^{n} \frac{(o_{ij} - e_{ij})^2}{e_{ij}}$$

where o_{ij} is the observed frequency
e_{ij} is the expected frequency

From this we can calculate χ^2 and we can say $\chi^2 = 0.00148$

But for degree of freedom 1 and confidence level 0.01 , χ^2 needed to reject the hypothesis is 6.635, Since our calculated value is less than the 6.635 Hypothesis is accepted.