**REAL VS VIRTUAL REALTIONSHIP**

**MAIN ASPECT**

In this modern world many of the things are changed. not only in the appearance of the world and also the people’s relationship. this project main motive is to mask off the people’s opinion about virtual and real relationship and also predict which age group prefer which kind of relationship so we taken the people around the Age **20-30 ,30-40,40-50** as each separate group. Virtual relationship is get most popular in 2019 onwards because of the effects of corona, social platforms are very much helpful on that time to maintain relationship with our loved ones, but even after back to normal some people stays in virtual relationship so our analyse is not only depends on age and also the predict the factor which makes them stay in these virtual relationship.

**RELATIONSHIP**

 Human is a social animal. To survive and stay happy, he needs to get connected with the people around him. To love and to be loved is the best feeling in the world. The feeling of this love and the connection between two people is what we call a relationship. Right from the family relationship, friendship, acquaintances, and romantic relationship, all are important at one or the other point of life. Having a relationship is thus one of the most important things in life. A relationship is when two people bond or connects based on the feeling of mutual trust, likes, dislikes, or love. It can be a relationship between family, friends, neighbours, passerby, or any other acquaintances

**REAL RELATIONSHIP**

One of the most important things in a relationship is companionship. Without this there simply is no relationship. For most it starts with a physical attraction and from there, personal traits. In a real relationship, if there really is love then nothing is impossible. A small fight won’t hold you back nor will a dramatic change in your lives, such as buying a house or having children, as long as you always have each other. Real relationships are out there, it may take awhile to find the right person, but don’t give up. I don’t believe in giving up, I believe in real relationships.

**VIRTUAL RELATIONSHIP**

Virtual – Not physically existing as such but made by software to appear to do so. A virtual relationship literally means having a relationship with someone in the world that physically not attracted but the relationship made to appear so by a software.Online dating: The most common type of virtual relationship is online dating. Today finding someone to get into a virtual or real relationship is as easy as finding a red dress on an e-commerce website. People use apps and websites like Tinder, Instagram,facebook,Truly Madly, Fling, Zoosk, OkCupid, Inner Circle, Doing Something, Hinge, Muddy Match, Happn, and Coffee meets Bagel, among others for online dating.

**AGE GROUP**

We conclude that age is an main factor which affect the kind of relationship ,that’s why we taken separate age groups like youth in 20-30,mid age group as 30-40 and 40-50.depends on this groups we created the questionnaire, and analyse the data for each groups and conclude the interpretation.

**TEST AND METHODS**

Test and method taken for this analysis are

# chi-square estimator.

# multiple bar diagram.

# cross table.

**SOFTWARES USED FOR TESTS**

# EXCEL.

# WORD.

# PYTHON.

**CHI SQUARE TEST**

A chi-square (χ2)statistic is a test that measures how a model compares to actual observed data. The data used in calculating a chi-square Statistic must be random, raw, mutually exclusive, drawn from independent variables, and drawn from a large enough sample. Chi-square tests are often used in hypothesis testing. The chi-square statistic compares the size of any discrepancies between the expected results and the actual results, given the size of the sample and the number of variables in the relationship. For these tests, Degrees of freedom are utilized to determine if a certain Null hypothesis can be rejected based on the total number of variables and samples within the experiment. As with any statistic, the larger the sample size, the more reliable the results.

**The Formula for Chi-Square Is**

***χc*2​=∑​(*Oi*​−*Ei*​)2 /Ei**

**C=Degrees of freedom**

***O*=Observed value(s)**

***E*=Expected value(s)​**

**THE CODE FOR CHI SQUARE IS**

from scipy.stats import chi2\_contingency

chi\_value,p,dof,expected=chi2\_contingency(cross)

print('chi-square value :',chi\_value)

**CROSS TABLE**

Crosstabulation is a powerful technique that helps you to describe the relationships between categorical (nominal or ordinal) variables. Cross table is used for sorting the data it ensure that less or no loss of accurency. it’s majorly used before the chi square .chi square is based on the cross table value.

**CODE FOR CROSS TABLE**

import pandas as pd

age\_20=pd.read\_csv('Age 20-30.csv')

age\_20

cross=pd.crosstab(age\_20['D1'],age\_20['DEP'])

cross

**TESTING OF HYPOTHESIS**

Hypothesis testing is used to assess the plausibility of a hypothesis by using sample data. The test provides evidence concerning the plausibility of the hypothesis, given the data. Statistical analysts test a hypothesis by measuring and examining a random sample of the population being analyzed.

The Null hypothesis is a typical statistical theory which suggests that no statistical relationship and significance exists in a set of given single observed variable, between two sets of observed data and measured phenomena.

Alternative hypothesis defines there is a statistically important relationship between two variables. Whereas null hypothesis states there is no statistical relationship between the two variables. In statistics, we usually come across various kinds of hypotheses. A statistical hypothesis is supposed to be a working statement which is assumed to be logical with given data. It should be noticed that a hypothesis is neither considered true nor false

For our analysis we use hypothesis to whether the reasons are satisfy dependent variable like the chi square value is less than 0.05 Its also know as alternative hypothesis if the reasons are not satisfy the dependent variable like the chi square variable is greater than 0.05 its also called as null hypothesis.

**Questionnaire And Its Assigning Variables In Excel**

**1. I prefer virtual conversations over real-life engagements with people = Dep**

**2. I would be glad to meet my virtual friend in person. =D1**

**3. I felt virtual relationship was very disappointing and depressing =D2**

**4. Personally, virtual intimacy was fulfilling and meaningful for me =D3**

**5. Now, I am happy & content to continue my relationship after meeting him/her in person =D4**

**6 I endorse the view that virtual intimacy is real love, not self-urge = D5**

**7. Virtual love too has heartbreaks and disappointments BUT I move on with life =D6**

**8. In REAL life, it is hard to explore love and sexualities, hence virtual intimacy is an escape from realities. =D7**