Study method

Data for both dependent variable and independent variables will be obtained by surveys on online basis through google form. Data were asked from the appropriate audience only to participate for effective analysis.

- **Population and Sample:**

In this study, all the youth mainly the one, who transitioned or planning to in working environment recently as population. Sample contains the data of 211 students of various regions in India (mainly Maharashtra and Gujarat). Most of the samples have an engineering as their academic background. Experience of samples mainly lied in mechanical, electronics and computer science field.

- **Instrument used for personality traits:**

The big-five is not associated with any particular test, a variety of measures have been developed to measure them. This test uses International personality item tool "Possible Questionnaire Format for Administering the 50-Item Set of IPIP Big-Five Factor Markers" developed by Goldberg 1992 was used for reference for preparing questionnaire.

Five independent variables named as openness, conscientiousness, extraversion, agreeableness and neuroticism are calculated from the statements asked in surveys. Each variable is associated with 3 statements among those one is reversed for identifying faulty samples. Time constraint restricted us to use only 30% of the model which is main key factor for our study.

3-point scale is used for data analysis in which, sample take stand for every statement in three ways. Based on reverse or direct statement points were assigned to 1) agree 2) maybe (agree or disagree can’t say 3) Disagree with one to three points. Later every variable is converted in range of 0 to 1 for proper comparison purpose.

- **Instruments used for Emotional intelligence**

Emotional intelligence is tested based on model from frameworks.org for our ability to recognize, understand, and regulate our emotions and to respond to those emotions in constructive ways that allow us to communicate, empathize with others, and overcome challenges.
10 questions where chosen and for which similar 3-point scale assigning agree, disagree and sometimes agree.

Procedure

The sample size was determined using with small effect size of $\rho = 0.3$, and power of the test = 0.95 and $\alpha = 0.01$; the sample size calculated was approximately 184. A convenient sample of 211 students who were from engineering background and on the verge of transitioning into working environment. The respondents have explained the purpose of the study and their consent was taken for the study participation. They were affirmed regarding the confidentiality of their responses and were affirmed that the information sought from them will only be

utilized for study purposes. They were handed over the study questionnaire via google form which consisted of big five inventory, and emotion regulation questionnaire. The study data was analysed using excel 2016.

In the current study, we simply measure the impact of the personality traits on the emotional intelligence. So, the research question is “how emotional intelligence is affected by various personality traits for youth.” Study will help predicting one’s emotional strength by observing his behaviour and some personality defining activities. Which is very useful for conclusion about a mental health and his daily lifestyle issues.

Linear regression is used for precisely predicting EQ based on selected human's behaviour. EQ and depression as inversely related based on the "LOW EMOTIONAL INTELLIGENCE: A RISK FACTOR FOR DEPRESSION" from journal JPPS 2009. Therefore, naïve bayes theorem is used for predicting the chances of person in depressed situation.

Chances of depression is calculated based on emotional intelligence as classified into 3 domains, i.e., if EQ for a person is greater than 80 in a 100-point scale than assumed low chance of depression. Similarly, if EQ less than 70 shows that high chances of depression or person need to review their life behaviour. Medium chance of depression is assumed for 70-80 pointer in similar marking scale.

Classification based algorithm is used as certain psychological terminologies are very difficult to quantify but easily be studied by classifying it. For study, surveyed data is split into 80:20 ratio for trained and tested data.