**Observations from EDA**

* Most of the participants fall in the age category between 23 and 45
* we may conclude that whether a person is self employed or not, does not largely affect whether he may be seeking mental treatment or not

#### Family history is a significant risk factor for many mental health disorders. participants who had a family history of mental illness are more likely to seek treatment as opposed to the ones who do not

* From the data, biggest factor of mental health disorder came up triggered on the workplace.  Employers should allow flexible work environment with flexible work scheduling and break timings. They should allow employees to work from home or have flexible place of work.
* We also observe that larger companies tend to formally discuss mental health issues more, i.e. perhaps they have formal policies in place. Also, the odds of mental health illness among tech companies is not significantly different than the odds of mental health illness in non-tech companies.
* offering benefits is the greatest strategy for managers to alleviate mental health issues
* when employees are aware of the benefits provided by the company, organization provides a positive environment and a platform for employees to easily ask for help and assure them of the confidentiality of their health significantly reduces the chances mental health illeness.
* If employees are aware that their company have measure to provide support, they are more likely to monitor their mental health and to ask for help without any reservations. Accepting treatment also reduces chances of mental health, as seen in the model, and a company can improve their work environment by promoting their employees to take treatment without any hesitation.
* Providing a safe support group within the organization can be beneficial (with priority to maintain the anonymity). It is important for an organization to have policies and measures to support their employees but more importantly, it is important for an organization to create a harmonious work environment.

**Model Evaluation:**

* **we can see that Neural Networks(NN) and Random forest both scored the same classification accuracy and in terms of Precison NN scored more . However , interms of cross-validated AUC score random forest classifier scored higher indicating that this model is more stable.**

### A csv file is prepared with Id number as first column and predicted column is mental treatment required to patient as second column