Pulsars are a unique and fascinating class of objects known as neutron stars. These highly dense remnants of massive stars emit regular radio signals that can be detected from Earth. Pulsars fascinate astronomers and astrophysicists because of their potential to unlock mysteries about the fundamental properties of space-time, interstellar matter, and matter itself. But detecting pulsars requires sophisticated observational and analytical techniques. Detecting pulsars is challenging due to the presence of radio frequency interference (RFI) and noise, which makes it difficult to distinguish legitimate signals from spurious detections. We will try to predict whether the data has reference value from the data easily available in the table.

The eight continuous variables in the dataset are as follows:

Mean of the integrated profile.

Standard deviation of the integrated profile.

Excess kurtosis of the integrated profile.

Skewness of the integrated profile.

Mean of the DM-SNR curve.

Standard deviation of the DM-SNR curve.

Excess kurtosis of the DM-SNR curve.

Skewness of the DM-SNR curve.

The class variable indicates whether a candidate is a real pulsar (class 1) or a spurious detection (class 0). The dataset has already been checked and labeled by human annotators, ensuring the accuracy of the class labels for each example.