1.

This machine learning model was created in an attempt to develop a loan approval application. This app would use input data such as Income, Marital Status, Number of Dependants, and credit history and then predict whether a loan should be issued based on these characteristics. The dataset Used here to train the model is an example of loan data with approvals already issued or denied by the financial institution in question. Therefore, the value in this app would not be in making approval decisions itself, however it would serve to greatly increase efficiency and reduce labour costs.

The intended use of the app would be for loan managers to quickly sift through a large volume of loan applicant data at once, and then only select those applicants that have been predicted for approval. At this point loan officers could investigate these likely to be approved applicants further, while discarding the applications that were automatically rejected.

2. I was unable to successful use a model to make predictions, please see my jupyter notebook file for further details. I attempted to use logistic regression to make predictions, as I felt it was appropriate here, but I ran into an error while trying to use the model,

3. Although performance was undeterminable as the model did not work; the benefits here would be the ability to massively increase the volume of loans that could be issued. Rather than interviewing candidates one by one, or having a person manually review applications-a time consuming process in either scenario- only likely candidates would be investigated. This could potentially lead to huge increases in revenue, as far more loans could be issued and thus far more interest revenue would be forthcoming. However the potential risk is that perhaps the model would not be accurate enough; thus resulting in lost revenue from customers who should have been approved.