**Lab2: Artificial Intelligence**

# Practical Session Log

Practice data set – **Loan Prediction Problem**

**VARIABLE DESCRIPTIONS:**

**Variable Description**

**Loan\_ID Unique Loan ID**

**Gender Male/ Female**

**Married Applicant married (Y/N)**

**Dependents Number of dependents**

**Education Applicant Education (Graduate/ Under Graduate)**

**Self\_Employed Self employed (Y/N)**

**ApplicantIncome Applicant income**

**CoapplicantIncome Coapplicant income**

**LoanAmount Loan amount in thousands**

**Loan\_Amount\_Term Term of loan in months**

**Credit\_History credit history meets guidelines**

**Property\_Area Urban/ Semi Urban/ Rural**

**Loan\_Status Loan approved (Y/N)**

**Task 1 (No need to submit in Brightspace)**

To execute the code with the loan dataset (train.csv) in Lab Slides in Week 2.

**Task 2 (It needs to be submitted)**

Please prepare an analysis report using the loan train dataset (download from Brightspace). The number of words for the report is approximate to around 500. You should provide the calculation results and visualization to support your analysis, which can be generated by applying the NumPy, MatPlotLib and Pandas libraries.

The following topics should be analysed in the report:

1. The relationship between the applicant’s gender and the loan application
2. The link between the education background and the applicant’s loan
3. How are the career, credit and property location associated to the loan application respectively?
4. Some overview analysis in terms of your observations and analysis.