Research Qualification Test 2018
City University of Hong Kong
College of Business

商 城 大 商 學 院
College of Business
A Key Business Education Hub – in China for the World

Deadline
Timestamp: 72 hours from you opening the test assignment

Submission
(1) Report -- A summary report of your methodology and findings. Including both text and graphs. Maximum 4 pages.
(2) Code -- The code you wrote to conduct the analysis. It could be R, Python, Matlab or any other language you use.

Homework
You work for a lending company that provides small loans to individual borrowers for 3 or 5 years. The company has collected data on the loans granted in the past few years. Your responsibility is to conduct analysis on the data and uncover insights about the loans' performance.

Good loans are the ones where the status is current or fully paid. Bad loans are the ones where the status is default, in grace period or late.

The dataset in csv format is attached as loan.csv.

Data Field Definition
• id   Borrower's id
• loan_amount   Amount of loan
• term   Term of loan
• int_rate   Interest rate
• installment   Monthly payment
• emp_length   Borrower's employment length
• home_ownership   Borrower's home ownership
• annual_inc   Borrower's annual income
• loan_status   Status of the loan
• purpose   Purpose of the loan
• addr_state   Borrower's residence state
• dti   Borrower's debt-to-income ratio
• delinq_2yrs   The frequency of the borrower's delinquencies in the last 2 years.
• earliest_cr_line   The date the borrower started his/her first credit line
• mths_since_last_delinq   The number of months since the borrower's last delinquency
• open_acc   The number of the borrower's open credit accounts
• revol_bal   The borrower's revolving balance
• total_acc   The number of the borrower's total credit accounts, including currently open
        & closed
• out_prncp   Outstanding principal of the loan
• total_pymnt   Total payment on the loan
• total_rec_prncp   Total received principal on the loan
• total_rec_int   Total received interest on the loan