



Assessment 1 Information

Subject Code:	DATA4200		
Subject Name:	Data Acquisition and Management		
Assessment Title:	In Class Exercise (Individual)		
Assessment Type:	Practical SQL Coding		
Word Count:	120	Minutes	(+/-10%)
Weighting:	35%		
Total Marks:	35		
Submission:	In Class (upload SQL database script) and Report via Turnitin		
Due Date:	Week 6		

Your Task

You are required to:

1. Complete each of the SQL queries, both provided and self-constructed.
2. Take a screenshot of each of the queries and results – copy and paste these into your report.
3. Explain and summarise the business insights found from executing the SQL queries and the data visualisations.
4. Submit your individual report via Turnitin **within 72 hours** after the end of your in-class exercise.

Background

The SQL Server contains data on Peer-to-Peer Lending. Connection details will be provided on the day of the assessment.

Assessment Instructions

Section #1: Server Connection and Simple SQL Queries (2 Marks)

Part 1: Connection to SQL Server on the Cloud (1 Mark)

1. Follow the instructions Connect to the SQL Server.

Part 2: Simple SELECT Query (1 Mark)

1. Create a SELECT statement that selects the first 100 rows for all columns of data.
2. Take a screenshot of the query and its result and paste that in your report.

Section #2: SQL for Business Insights (20 marks)



Part 1: Loan and Funded Amounts (3 marks)

- Execute the SQL script provided for loan amounts. Interpret the results of the query.
- Modify the SQL statement to show the number customers where the funded amount is:
 - Equal to \$10,000 dollars
 - Less than \$10,000 dollars
 - Greater than \$10,000 dollars

Take screenshots of the query and its result and paste that in your report for interpretation.

Part 2: Loan Terms (2 Marks)

Create an SQL statement that counts the terms of the loans. Take a screenshot of your SQL statement and the corresponding results and paste these into your report.

- How many terms are of 36 months? How many are of 60 months?

Take screenshots of the query and its result and paste that in your report for interpretation.

Part 3: Interest Rate (3 Marks)

Create an SQL statement that answers the following business questions:

- What is the average interest rate?
- What is the highest interest rate?
- What is the lowest interest rate?

Take screenshots of the query and its result and paste that in your report for interpretation.

Part 4: Loan Status (5 Marks)

Create an SQL statement that:

- Counts the number of unique loan statuses.
- For each of the unique statuses found above, create an SQL statement that displays the first 100 rows of data.

Take screenshots of the query and its result and paste that in your report for interpretation.

Part 5: Loan Grades (5 Marks)

Create an SQL statement that answers the following business questions:

- Display each Loan Grade and the count of the number of loans related to it
- Display each loan sub-grade and the count of the number of loans related to it

Take screenshots of the query and its result and paste that in your report for interpretation.



Part 6: Loan Defaults/Delinquencies (2 Marks)

Create an SQL statement that answers the following questions:

- How many customers defaulted on their loan obligations?

Take screenshots of the query and its result and paste that in your report for interpretation.

Section #3: SQL and Data Visualisation for Business Insights (13 Marks)

Part 1: Data Acquisition and Data Visualisations

- Create a SELECT statement that returns all rows and columns of data.
- Export and save the results of the query as CSV file.
- Import the CSV file in either PowerBI or Tableau.
- Select the following variables for visualisations:
 - ID, Member ID, Loan Amount, Funded Amount, Term, Interest Rate, Term, Instalment, Grade, Sub-Grade, Employee Length, Home Ownership, Annual Income, Verification Status, Issue Date, Loan Status, Purpose, Address State, DTI, Earliest Credit Line, Outstanding Principal, Total Payment, Recoveries, Collections, Last Payment Date, Last Payment Amount, and Application Type.
- From the data selected, create 3 kinds of unique visualisations, discover more business insights, and interpret the results. Consider carefully the kinds of columns that you use for each kind of visualisations.
- **Can you identify the kinds of customers that default on their loans?**

Take screenshots of each of the visualisations and paste that in your report for interpretation.

Important Study Information

Academic Integrity Policy

KBS values **academic integrity**. All students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Academic Integrity and Conduct Policy.

What is academic integrity and misconduct?

What are the penalties for academic misconduct?

What are the late penalties?

How can I appeal my grade?

Click here for answers to these questions:

[http://www.kbs.edu.au/current-students/student-policies/.](http://www.kbs.edu.au/current-students/student-policies/)

Word Limits for Written Assessments



Submissions that exceed the word limit by more than 10% will cease to be marked from the point at which that limit is exceeded.

Study Assistance

Students may seek study assistance from their local Academic Learning Advisor or refer to the resources on the MyKBS Academic Success Centre page. Click [here](#) for this information.

Assessment Marking Guide

DATA4200 Assessment 1		Rubric /35
Section 1: Server Connection and Simple SQL Queries		
1	2	/2
Has demonstrated limited achievement: Some of the steps have been followed and completed correctly.	Has achieved all or most of: Most or all of the steps has been followed through to completion.	2
Section 2: SQL for Business Insights		
0-10	11-20	/20
Has demonstrated limited achievement: Some of the steps have been followed and completed correctly.	Has achieved all or most of: Most or all of the steps has been followed through to completion.	20
Section 3: SQL and Data Visualisation for Business Insights		
0-6	7-13	/13



Has demonstrated limited achievement:	Has achieved all or most of:	
The SQL query has been constructed, some visualizations performed, and some interpretations were made.	The SQL query has been constructed, at least 3 visualizations were created, and interpretations were made.	5
Some business insights were obtained, especially with regards to the kinds of customers that defaulted on their loans.	Business insights was obtained, especially with regards to the kinds of customers that defaulted on their loans.	8