

Group Project | Reflection Paper

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This might have been one of the best teams throughout this whole degree. Luckily we were able to select who we wanted to work with, thus we knew this group will be resilient and easy to work with. We all made sure we interacted in the group chat when talking about preparation and scheduling meetings. We all moved things around our agendas to make meetings work, considering the time differences (*Pacific Time, Mountain Time, Central Time, and British Summer Time*). Furthermore, we all made sure we came prepared and did our due diligence around the research needed for each meeting.

We decided to take a joint approach to the assignment, which consisted of all of us brainstorming on how we can achieve the results we wanted, agreeing on our approach and one person sharing their workbench screen and adding the code. Whenever we will reach a point where none of us knew how to proceed, we will all do research and pitch our different solutions. Regarding individual contribution:

- Stefania's contribution to the group project was writing the code and sharing the screen during zoom team meetings.
- Carolina's contribution to the group project was to assess the ER diagram of our database and remove any tables and connections that were not relevant for the project. She also shared the final diagram with all the team members.
- Serena's contribution to the group project was to do research around the accounting definitions and process to develop a profit and loss statement, as well as a balance sheet.
- Dennis's contribution to the group project was to take notes of a team's brainstorm on each question we had to answer for the reflection paper and use those to write this paper.

We had challenges when we wanted to do something very specific that we haven't learned in class. We would do some research on Google and Stack Overflow to see if someone had the solution to our question. Some examples of the challenges we faced were how we could display the results in currency format, and also display two decimals. We decided to take onto a big challenge and research the possibility of developing user-defined functions to pull the information we needed. This came up as we realized we were repeating the same code around our script, while only making a few changes.

If we are able to do it all over again with the same pressure, we will do some more research on how to optimize different query results interactions instead of doing them manually. For example, when we run a query to get the Income from 2019 we would copy the resulting number and then manually deduct the result we will get from an expense query. Ideally, we would like to have SQL pull those results and do the calculation with a line of code.

UPDATE: We were able to add user-defined functions to our code, and make SQL calculate values automatically after class and with help from the professor.

Screenshots of results.

Year	Item	Balance	Year	Item	Balance
2018	PROFIT & LOSS STATEMENT	\$	2018	BALANCE SHEET	\$
	Revenue	2,949,934.77		Current Assets	2,975,073.72
	COGS	2,142,177.47		Fixed Assets	0.00
	Gross Profit	807,757.30		Deferred Assets	0.00
	Income Taxes	0.00		Total Assets	2,975,073.72
	Net Operating Profit After Taxes	807,757.30		Current Liabilities	1,193,161.36
	Other Income	45,495.84		Long-Term Liabilities	0.00
	Other Expenses	117,596.61		Deferred Liabilities	0.00
	Other Taxes	0.00		Total Liabilities	1,193,161.36
	Net Other Income	-72,100.77		Equity	1,781,912.36
	Net Income	735,656.53		Total Liabilities & Equity	2,975,073.72