Savannah James

1. **Develop queries to find billing errors and write a brief report summarizing the errors you found and how you found them with your queries. Submit the word document and the database. This will be worth 60% of the points.**

For the fixed and flexible plans, I developed several queries to help find where the errors were coming from. For the fixed plans, I created a query to figure out how much the tax percent was going to be so I could include this in the total amount. This was calculated in a query by dividing the taxes from the invoice line by the subtotal from the invoice line table. For the fixed plans, I created a query that figured out the users with contract number 350214 with their plan minutes, rates, and how many additional minutes they went over. I created two queries – a subtotal and a total – for the total price of the fixed plan per user. I created an additional query that calculated the difference between what each user was charged and what I calculated in my other query. This resulted in a $0.00 difference except for user 678-541-4576. The difference between the two was over $102.00. This means that they were overcharged that amount by the company.

For the flex plans, I created a query that figured out what users were on contract 351827. I also had to calculate the total minutes that each user had used for the plan. As with the fixed plans, for the flex plans I also had to calculate how much tax would need to be included into the total amount. I created another query that calculated the total price per plan for each user with the contract number mentioned above. After that, I calculated an additional query that stated the difference between what they were charged and what they should have been charged based on my queries. Like the fixed plans, most of the differences were $0.00, however employee 678-541-4573 was overcharged well over $200, and employee 678-541-4574 was undercharged around $8.00.

1. **Develop queries to find the most economical billing plan for this company’s phone users and write a brief report as above. Submit as above. This will be worth the remaining 40%**

Based on the queries that I have created; the best billing plan would be the fixed plan. Overall, it appears cheaper for each user. I created a couple of queries to figure this out. I used my tax rate query as well as the query where I found the total minutes used per user. I then calculated the total after discount and tax to come up with the total dollar amount per user. For the flex plan, I basically did the same thing except I had to include the overage charges. I created a final query that compared the two totals to see which plan was cheaper than the other, by user. The fixed plan was cheaper per user in almost all cases.