

Thanks for taking the time to complete this task.

This project has two objectives: not only to help us see you in action, but also help you see whether the type of work Two Circles does is something you would enjoy.

Gotham Goats is a professional box lacrosse franchise based in Gotham City. They want to build a better understanding of their ticketing customer base. The fictionalized ZIP file you have been given contains 3 sheets - Customer, Events, and Tickets. The *Cust ID* in the Customer sheet is connected to the *Customer ID* in the Tickets sheet, while the *Event ID* in the Tickets sheet is connected to the *Event ID* in the Events sheet.

We would like you to imagine that the Chief Business Officer of Gotham Goats has asked you to pull some key insights out of the data at short notice. Using Tableau please provide: -

* Some analysis of the data quantity and quality
* A maximum of 7 slides, in any format you choose, to identify the key business insights you can identify from the data you have been given

We would like you to share your findings back to us in one week’s time. Please email through your password-protected database analysis to [recruitment@twocircles.com](mailto:recruitment@twocircles.com) in an appropriately secure manner.

Thanks again – we look forward to your thoughts.

The Two Circles Team

Business Insights –

In 2014 and 2016, ticket sales were reported to be similar

After 2015, the number of tickets sold continued to increase

Process – Prepare Data for Analysis

1. **Quality -** used Python - Pandas and Microsoft Excel to check for missing data in the dataset
2. **Quantity –** studied the size of the datasets and its content to see how to structure the analysis

**Findings –**

Tickets and events sheets didn’t have any missing values, while Customer Data had missing values in all the columns including First and Last Names, Address, City, State, Zip Code. Account ID and Country fields showed no missing values.

**Research Strategy -**

It is important to inspect the data to fully understand what kind of information is available for analysis. The initial step to analysing Gotham Goats’ the customer base is to learn who their customers are by creating segmentations or cohorts. (where I grouped cohorts with similar characteristics)

Customer Base Segmentations:

1. **Geographic:** Customer’s Location / Region – *State, City, Zip-Code*
2. **Demographic:** Customer’s Occupation, Gender – *depending on info available*
3. **Behavioural:** Customer Loyalty, Willingness to Purchase – *how many tickets bought? How often?*
4. **Psychological**: Personality Attributes – *chose to look at the field, Opponent*

Some of the Research Questions:

1. **Customers:** Where are they located? What is their age, gender, occupation? Who do they support? What events attended? Was it a game with a specific opponent?
2. **Tickets**: What is the total number of tickets sold every year? Did this number increase or decrease? What is the percent change in ticket sales yearly?
3. **Customers:** What is the total number of customers of Gotham Goats? What is the total number of customers purchased tickets annually? What is the percent change in the number of customers yearly?
4. **Revenue:** What is the total revenue amount per year? Did the amount increase or decrease? What is the year over year growth in revenue from ticket sales?

Customer Base Summary -