

Outland Adventures Solution

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Blue Team Introduction

- ❖ Jess: Technical Sergeant in the Air Force. Background in teaching (math) and in Korean language. Currently training into the cyber field in the Air Force.
- ❖ DeJanae: Background in Front End and Gaming Development. 3D creator and currently working in Back End development.
- ❖ Vee: Data Analyst at Waste Management specializing in route optimization, with a background in customer service, nail technology, and pursuing a Software Development degree



Outland Adventures Case Study

- Founder Blythe Timmerson and Jim Ford wanted to share their hiking and camping passion by providing guidance and equipment to a wide audience
- Goals:
 - ◆ Introducing people to the beauty and challenges of nature
 - ◆ Planning and guiding trips to various exciting locations
 - ◆ Offering equipment for purchase or rental



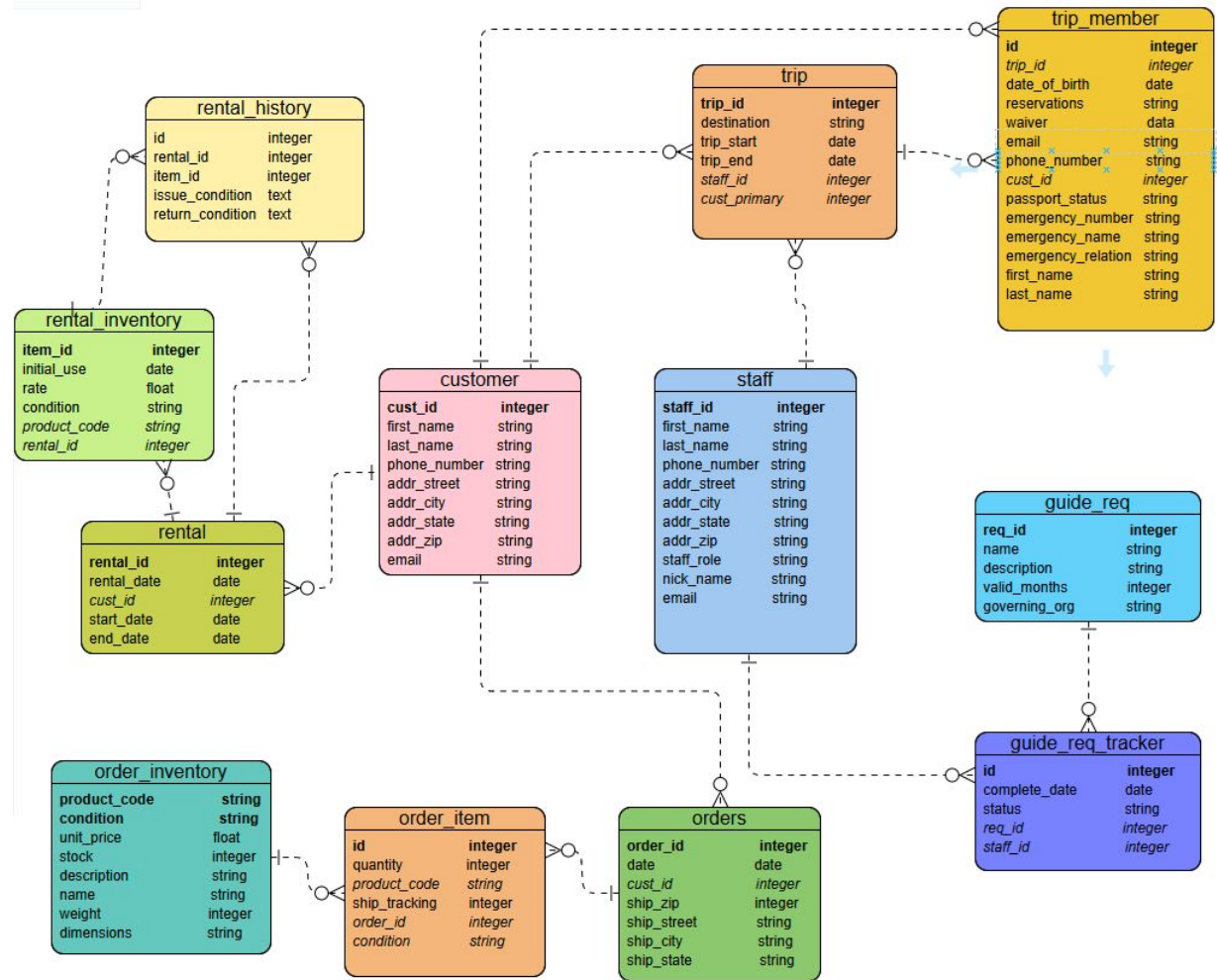
Assumptions

Our case study asked questions about the trend of trip sales in three target continental regions, whether it was worth continuing to sell equipment, and whether stocked equipment was too old—with 5 years old being a breaking point. Based on this, we made the following assumptions:

- Age of equipment matters (more) for rental equipment than for equipment sold as new. A piece of used equipment with 4 years of regular use is bound to have more wear and be less reliable than a piece of equipment that has sat in packaging for 4 years.
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Finalized ERD



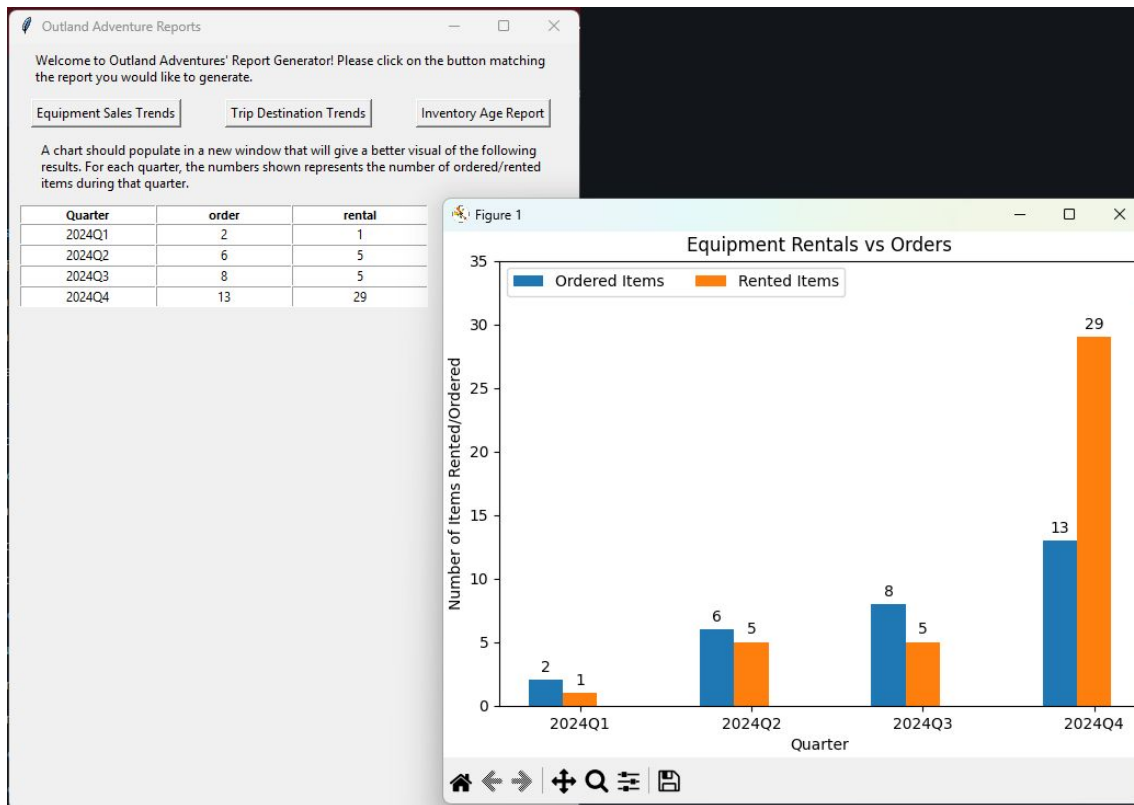
Report #1: Equipment Sales

The founders wondered whether the amount of equipment sales justified keeping new equipment on hand to sell.

To answer this question, we built a report that compared the number of items rented vs sold quarterly.

This report required some clever SQL querying:

- A case to define the quarters
- Grouping by quarter
- Joining the rental and rental_history tables, as well as joining the order and order_item tables



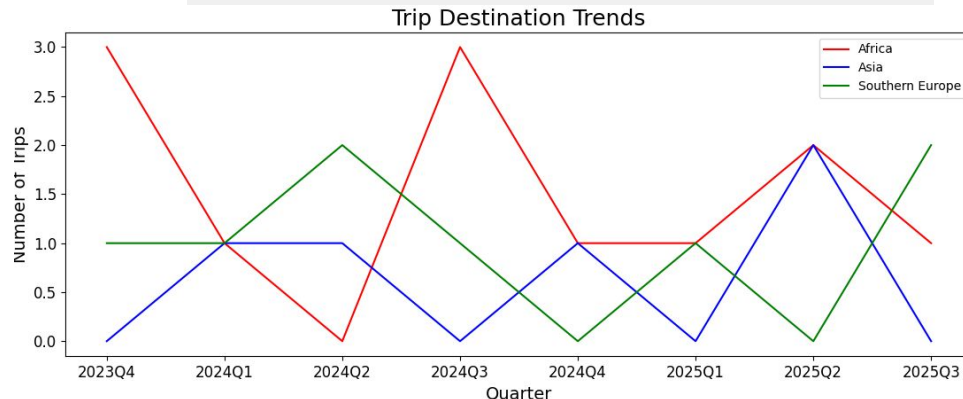
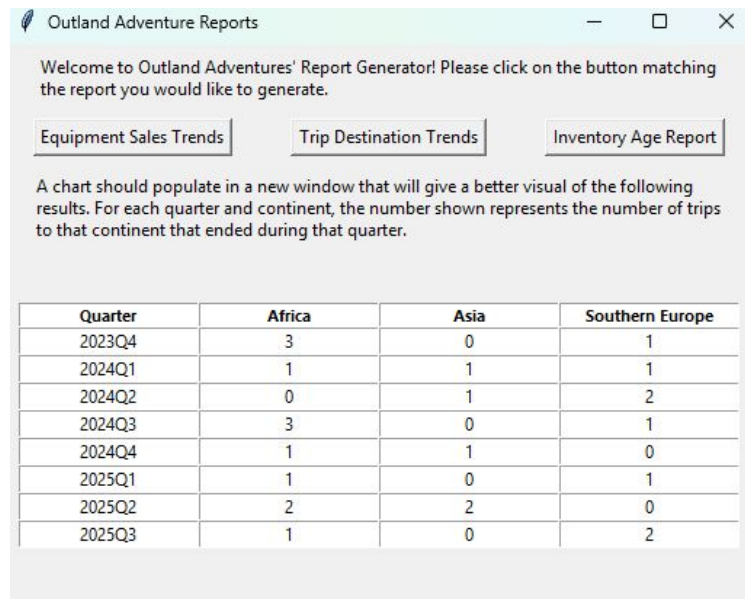
Report #2: Location Bookings

The founders of Outland Adventures are concerned that bookings to specific continental regions might be declining over time. Are there areas they should remove as options for trips?

- To date, trips have been led to Africa, Asia, and Southern Europe.
- Would a report on trips to these areas reveal a decline in bookings over time?

Answering these questions required some interesting SQL querying:

- A case to group by quarter
- Combining the use of substring, LIKE, and grouping to get the count of trips per continent



Report #3: Inventory Age

- The founders were concerned about the age of their inventory
- Any equipment over 5 years old should be accounted for
- The query can be displayed in the table
 - ◆ Displaying all the inventory that is over 5 years old

This required using SQL's INNER JOIN functionality.

```
--Equipment more than 5 Years Old:

Rental ID:1
Name:Amber 65 Pack - Women's
Initial Use:2019-02-05

Rental ID:3
Name:Amber 65 Pack - Women's
Initial Use:2013-05-10
```

Above: The raw Python script results
Right: The results added to our tkinter report app

