



# **R DATA ANALYSIS SPACESHIP TITANIC**

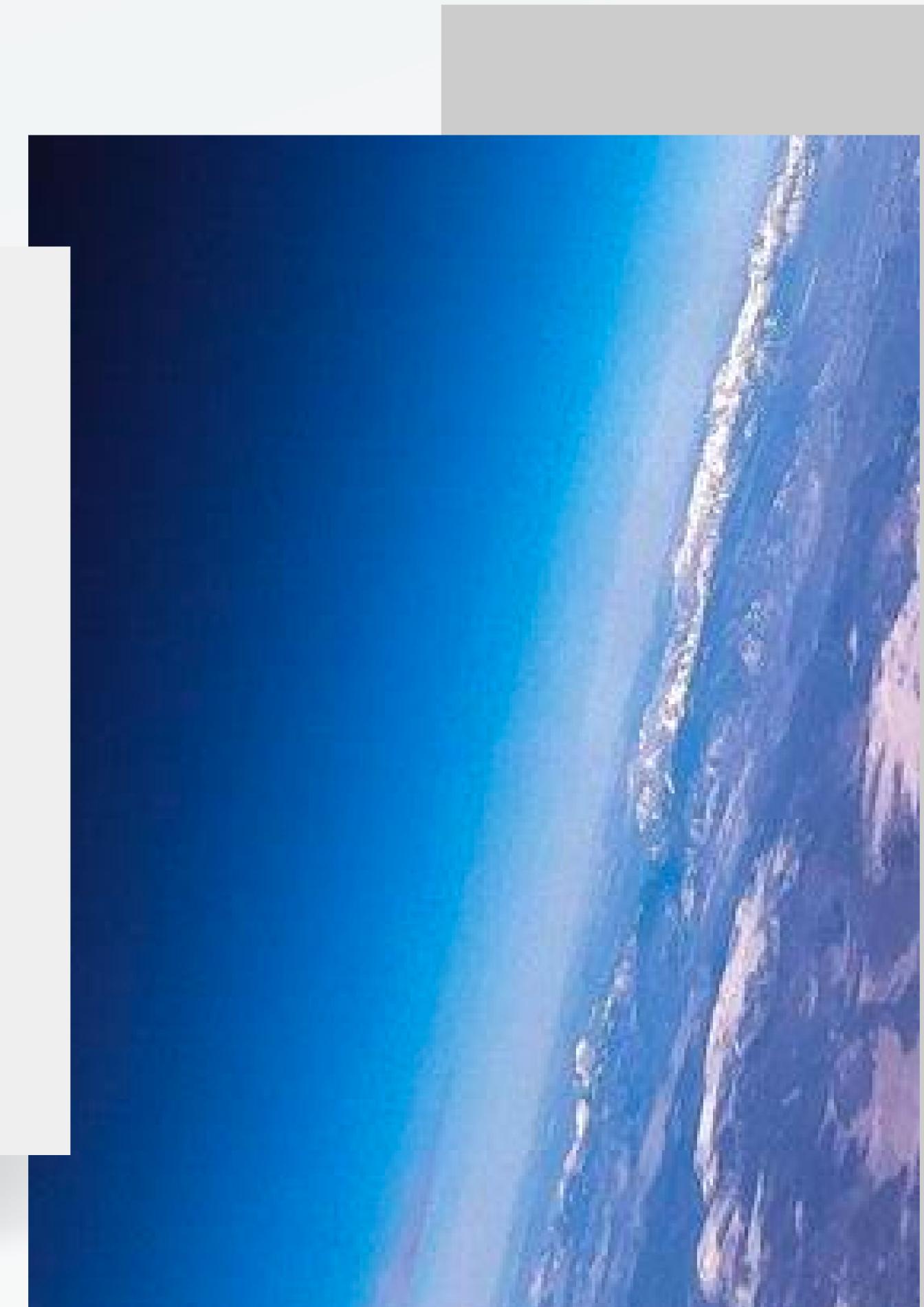
**JENNY DUONG**

# DATA FIELD DESCRIPTIONS



The data set provided from Kaggle contained ~8700 rows of data with the following columns:

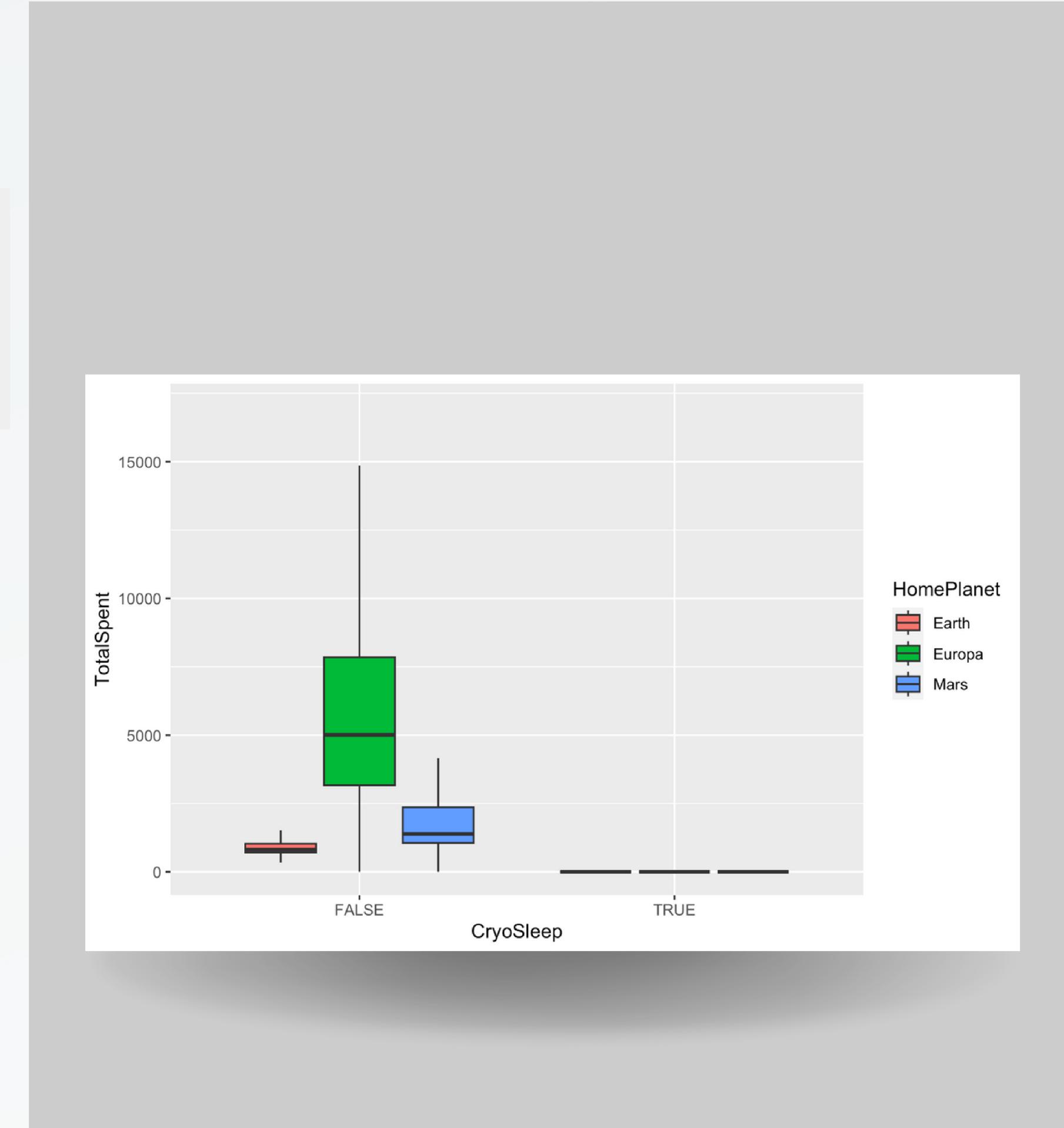
- **PassengerId** - A unique Id for each passenger. People in a group are often family members, but not always.
- **HomePlanet** - The planet the passenger departed from, typically their planet of permanent residence.
- **CryoSleep** - Indicates whether the passenger elected to be put into suspended animation for the duration of the voyage. Passengers in cryosleep are confined to their cabins.
- **Cabin** - The cabin number where the passenger is staying. Takes the form deck/num/side, where side can be either P for Port or S for Starboard.
- **Destination** - The planet the passenger will be debarking to.
- **Age** - The age of the passenger.
- **VIP** - Whether the passenger has paid for special VIP service during the voyage.
- **RoomService, FoodCourt, ShoppingMall, Spa, VRDeck** - Amount the passenger has billed at each of the Spaceship Titanic's many luxury amenities.
- **Name** - The first and last names of the passenger.
- **Transported** - Whether the passenger was transported to another dimension.



# EXPLORATORY ANALYSIS

I decided to first look into passengers who opted for CryoSleep, more specifically how it affected the amount of money spent on amenities.

I grouped passengers together by Home Planet, cleaned and mutated the data to find the Total Spent on amenities. Not surprisingly, passengers who opted for CryoSleep did not spend any money on luxury amenities.

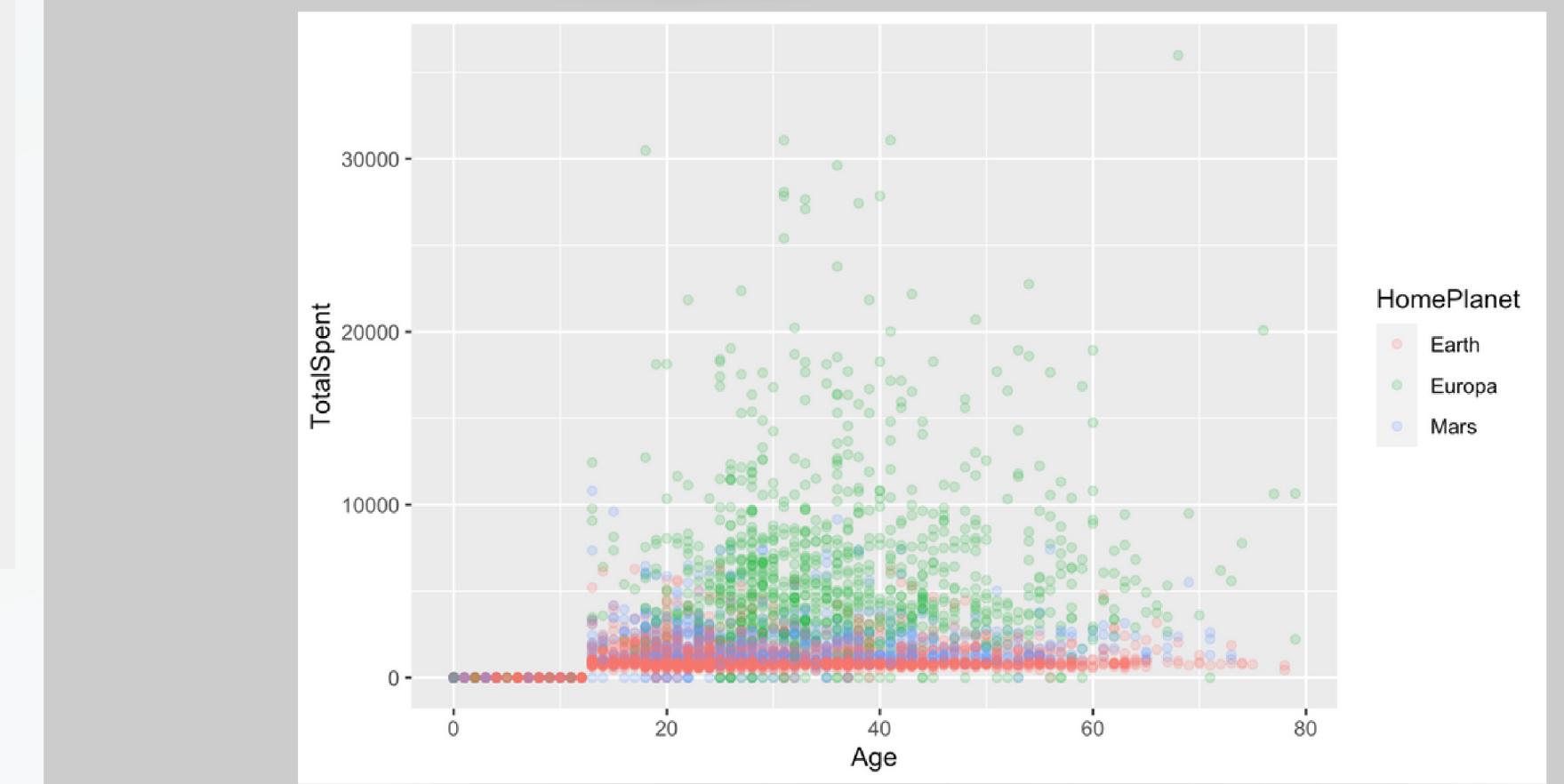
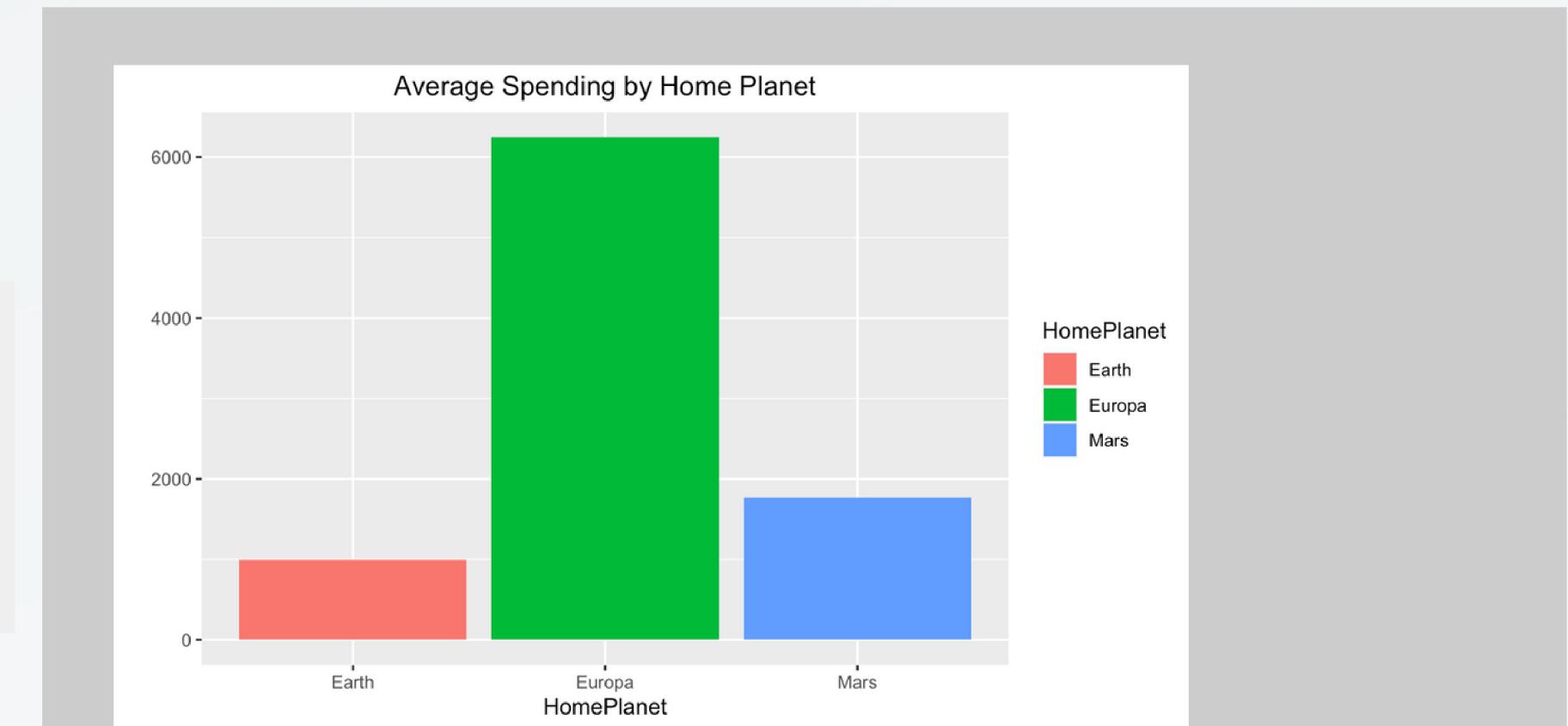


# EXPLORATORY ANALYSIS

From the plot generated, I noticed that passengers from the Home Planet Europa seemed to outspend every other planet by a lot, so I decided to delve more into that.

Europa passengers on average spent 3x more than Mars and over 6x more than Earth.

When breaking down spending by age, I noticed that there seemed to be an age requirement for spending, as no one younger than 12 spent anything on amenities.



# EXPLORATORY ANALYSIS

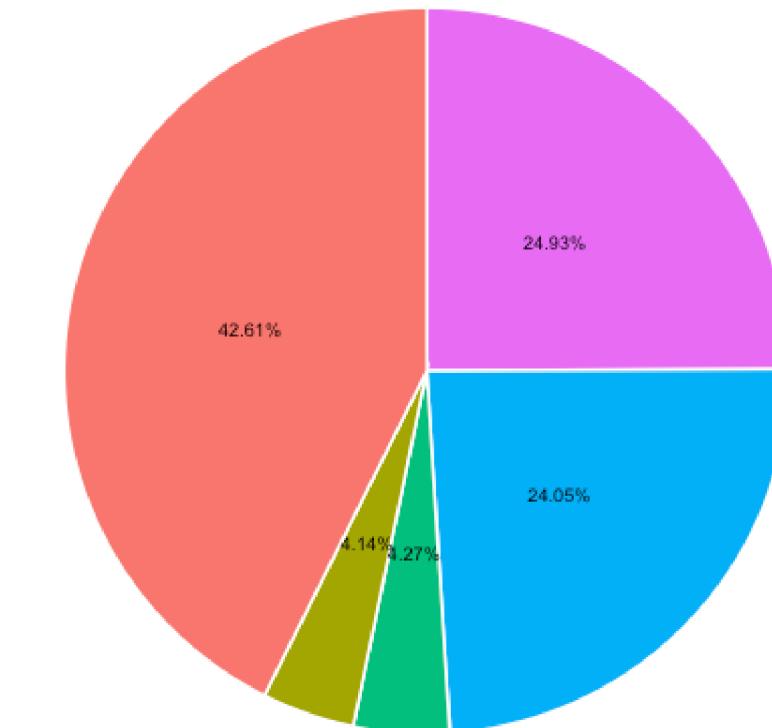
Going further into analyzing the spending patterns of passengers, I calculated the total amount spent on each amenity by Home Planet.

I broke down the spending of passengers of Europa by category.

- The two highest grossing amenities were Food Court and VR Deck.
- The two lowest grossing amenities were Room Service and Shopping Mall.

HomePlanet <chr>	TotalRoomService <dbl>	TotalFoodCourt <dbl>	TotalShoppingMall <dbl>	TotalSpa <dbl>	TotalVRDeck <dbl>
Earth	616094	618216	601088	642946	620355
Europa	304261	3134199	314054	1769044	1833854
Mars	952642	93557	531452	189912	81598
NA	39544	52265	27498	45889	56983

Europa Citizens Amenity Spending



category  
Food Court  
Room Service  
Shopping Mall  
Spa  
VR Deck

# TAKEAWAYS

- Through analysis, I was able to identify that the largest source of income of the Titanic space ship were the passengers of Europa.
- Passengers who opted for CryoSleep spent no money on amenities. It would be interesting to know if CryoSleep is an amenity and how much it would cost.
- The Shopping Mall generated the lowest amount of income. I would make a suggestion to the Titanic company to possibly improve their shopping selection in order to raise revenue on that front.

