

# Team Mode.est

## Questions we are interested in

- How do families with children and the average traveller's travel plan differ in general?
- Are packages more popular with a certain group of people?
- Is there a trend in how each demographic purchase in terms of location of their vacation and hotels?
- Where does an average traveller go?

## What we did

Instead of focusing on a single machine learning model heavily, we wanted to explore the customer's trend in hopes that it might give us an insight as to what and where Expedia can improve.

## What we found

- We found that 94% of Expedia customers travelling with families did not utilize package deals. This is a large demographic of people Expedia can target to increase bookings in luxury hotels.
- Distance between origin of search and destination has a non-linear, negative and significant relationship with number of children in the search i.e., the more children they are travelling with, the closer they want to stay.
- The top 8 travel destinations for US travellers with children, but without packages, were Canada, Mexico, Italy, United Kingdom, France, Spain, Puerto Rico, and the Dominican Republic in descending order of popularity. Again, families show a trend of wanting to stay closer to home.
- However, if families took a package, they took a package for locations farther from home. Take the Dominican Republic for example, many families with children who bought packages to Dominican Republic opted for the most 5 star hotels compared to the average traveller who travelled to the Dominican Republic with no packages.
- To summarize our findings, we found that more families opted for luxury hotels( 3 star and above) when they purchased a package compared to the number of families that opted for luxury hotels didn't purchase packages. There was 5% difference between between families choosing luxury hotels when they have package when compared to families travelling without the package deals.
- Families travelling without packages book an average of 30 days in advance. Families with packages book an average of 60 days in advance. Comparing our results with **Holidata**( the annual report published by expedia), we find that families travelling without packages seem to book their tickets in the right time compared to the families that are choosing to travel with package.