1. You work at an e-commerce company that sells three goods: widgets, doodads, and fizzbangs. The head of advertising asks you which they should feature in their new advertising campaign. You have data on individual visitors' sessions ([activity on a website](https://en.wikipedia.org/wiki/Session_%28web_analytics%29), [pageviews](https://en.wikipedia.org/wiki/Page_view), and purchases), as well as whether or not those users [converted](https://en.wikipedia.org/wiki/Conversion_marketing) from an advertisement for that session. You also have the cost and price information for the goods.

Answer:

1-What percentage of users clicked on any of these three categories pages?

2-what advertise got the most converted users?

1. You work at a web design company that offers to build websites for clients. Signups have slowed, and you are tasked with finding out why. The [onboarding funnel](https://en.wikipedia.org/wiki/Funnel_analysis) has three steps: email and password signup, plan choice, and payment. On a user level you have information on what steps they have completed as well as timestamps for all of those events for the past 3 years. You also have information on [marketing spend](https://en.wikipedia.org/wiki/Marketing_spending) on a weekly level.

Answer:

1.i will check if there is correlation between market spending and slowness.

2.i will check if at same time last year we had same kind of slowness

3-i will check on what stage they stopped the process (payment , creating uyser ,..)

1. You work at a hotel website and currently the website ranks search results by price. For simplicity's sake, let's say it's a website for one city with 100 hotels. You are tasked with proposing a better ranking system. You have session information, price information for the hotels, and whether each hotel is currently available.

Answer:

First I will remove all unavailable hotels for selected days. The next step is rank hotels based on the most booked or clicked ones for other users.

1. You work at a social network, and the management is worried about [churn](https://en.wikipedia.org/wiki/Churn_rate) (users stopping using the product). You are tasked with finding out if their churn is atypical. You have three years of data for users with an entry for every time they've logged in, including the timestamp and length of session.

Answer:

I will compare the traffic of site now and the same time in last 3 years, in addition to that I will look at the rate of growth in last 3 years and compare that rate to this year growth.