



EXPLORING BEHAVIORAL USER DATA AND UNDERSTANDING ITS BUSINESS IMPLICATIONS

SUMMARY

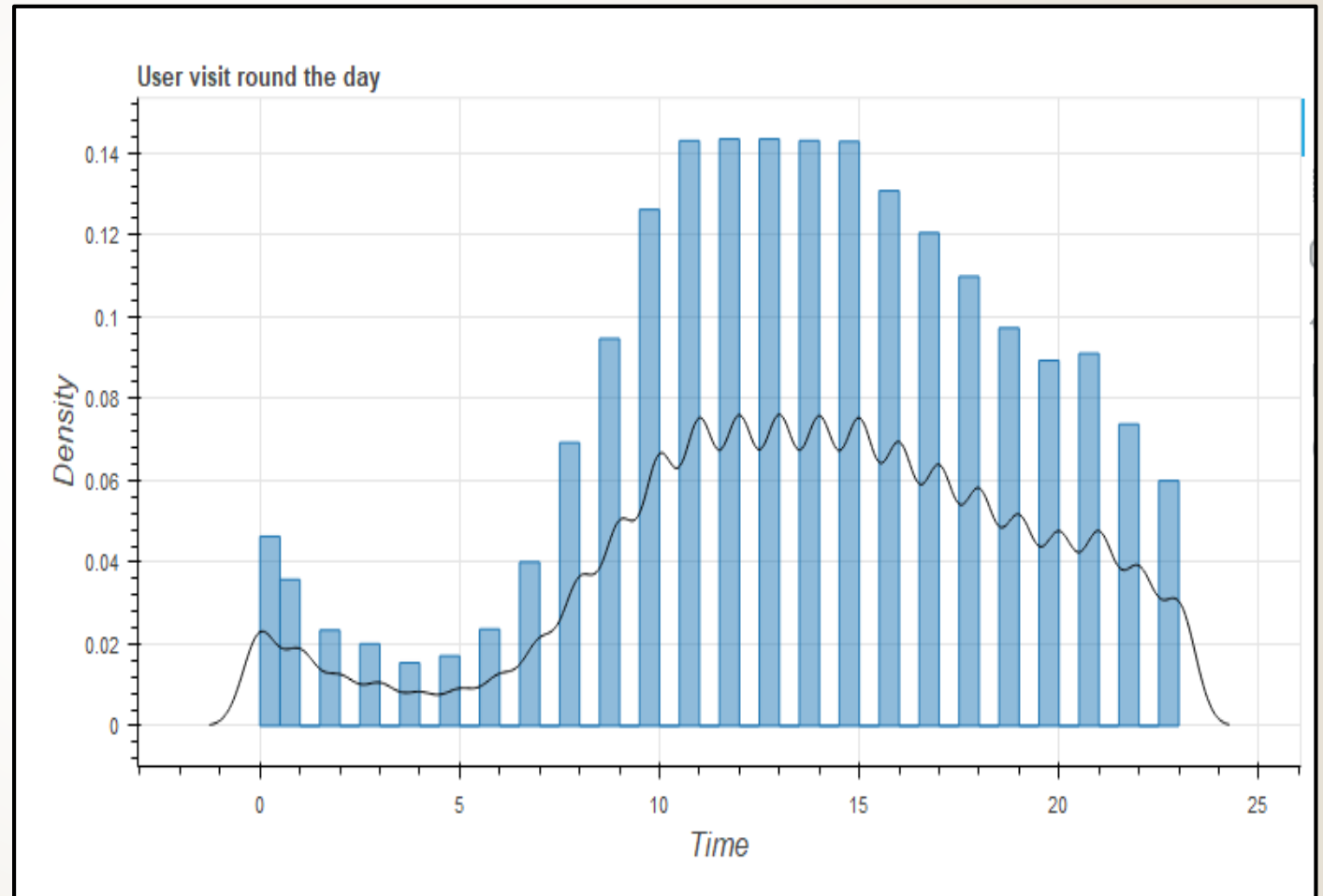
- Understanding of the end user behavior/response is a vital part of a company's strategy.
- Analyzing and studying user response can help a company to direct right product to right customer at right time.
- User response can be studied by analyzing sales of the final product, customer visitations, questionnaires, experts review etc.
- In this report we would be leveraging Data Analysis techniques to study the website behavior of end user and form meaningful relationships to target the right users.

Pre-Processing steps:

- Created logical grouping to reduce factor levels in the attributes by grouping Browser, Device Brand, Event.
- Converted timestamp to meaningful attributes extracting day, time, date.
- Removed non-contributing attributes such as browser version, user agent string.
- Clubbing the attributes Screen width and Screen height as Resolution.
- Removed missing value as it consisted of less than 2% of the data hence ensured noise reduction without any possible data loss.
- Mapping important relationships to be deduced from the data.

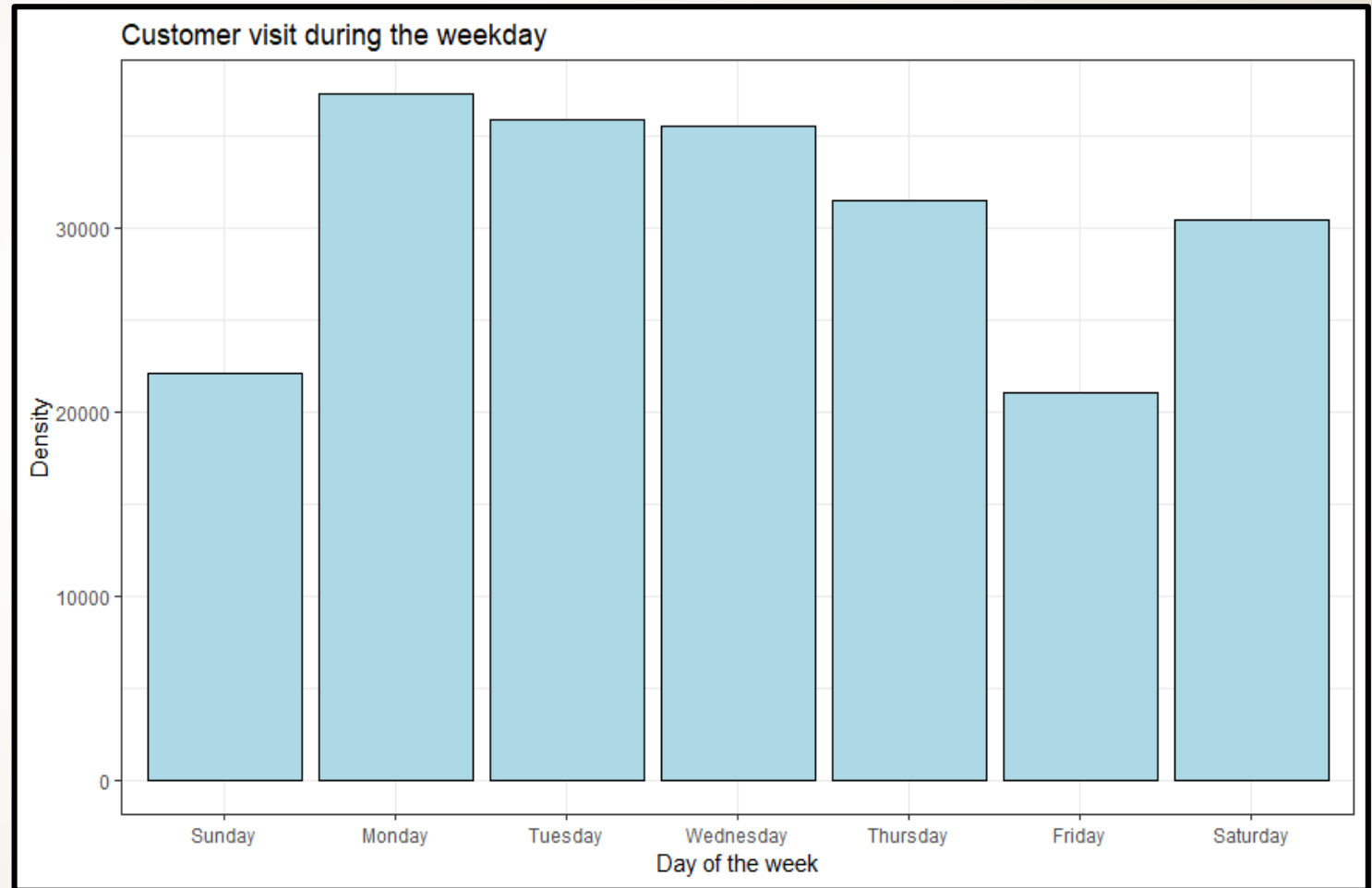
Studying the relationship between User visits and time of the day

- From the plot we can observe that the website has most traffic during the office hours, i.e., from time 10 AM to 5 PM.
- User density is at its peak around the noon time, i.e., from 11 AM to 3 PM.
- As our major Users are working population, hence the pattern is conclusive that Users visit the website from work during the noon time when they are finished with the morning meetings and priorities.
- Targeting ads, emails between 10AM to 5PM could help increase the customer visits further.



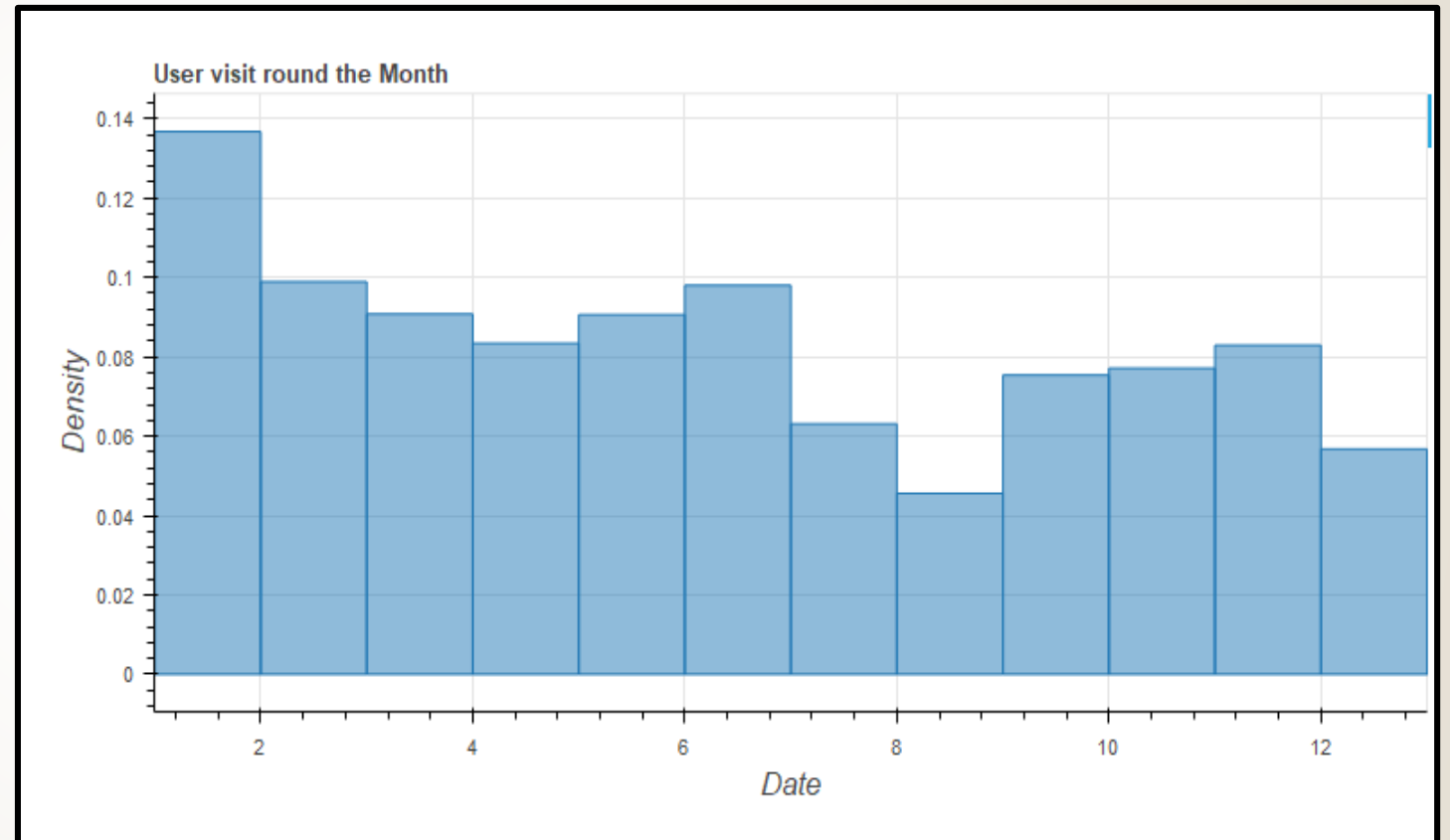
Studying the relationship between User visits and time of the day

- The Major customer visits are on the first three days of the week.
- Its interesting to note that Friday and Sunday have similar number of visit, i.e, excitement to start the weekend and fear of “the dreaded Monday” reduces the number of customer visits.

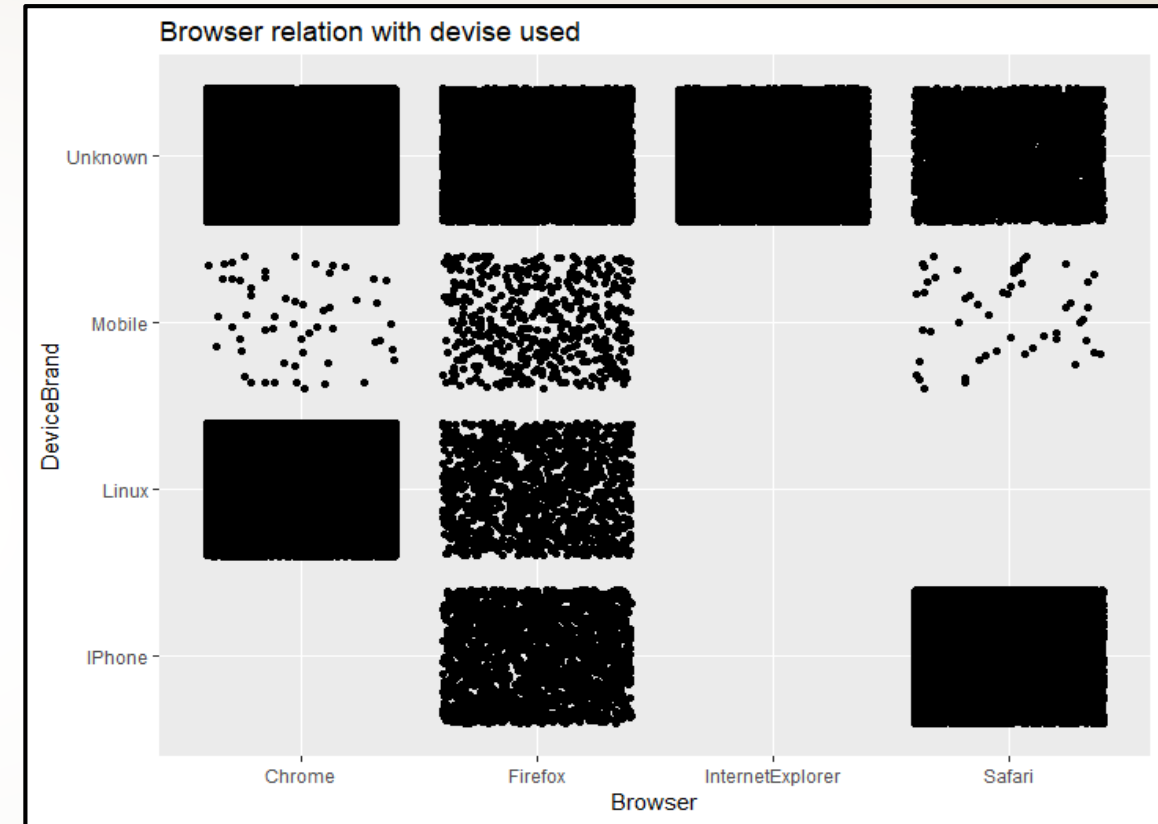
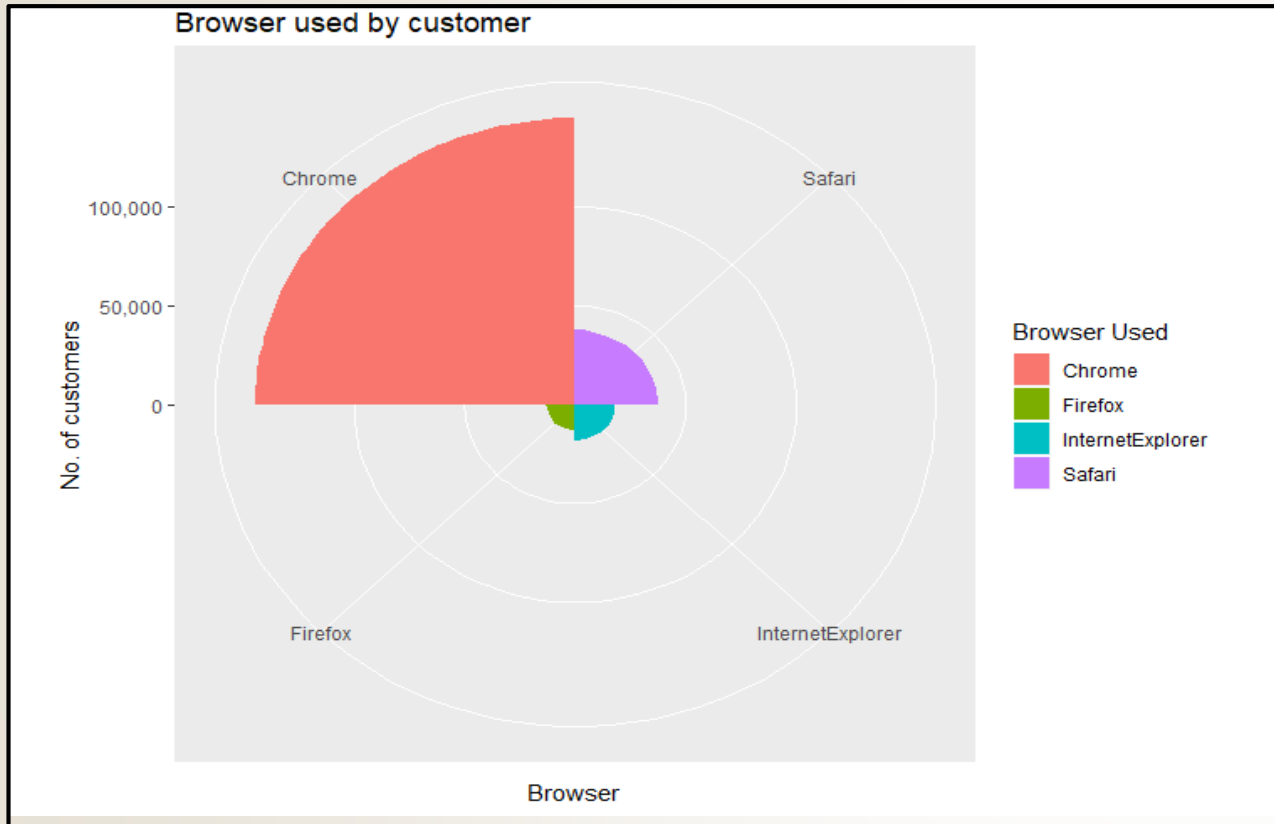


Studying the relationship between User visits and date of the month

- We can observe that the start of the month has the higher number of visits as compared to the latter part, which can be due to the fact that their old insurance policy is about to expire or they have just paid the premium of their insurance policy and have a moment of realization of the high amount of premium they are paying and are hence looking for better options.
- The start of the month can be a good period to roll out the schemes and discounts to attract new customers



User Distribution by Browser



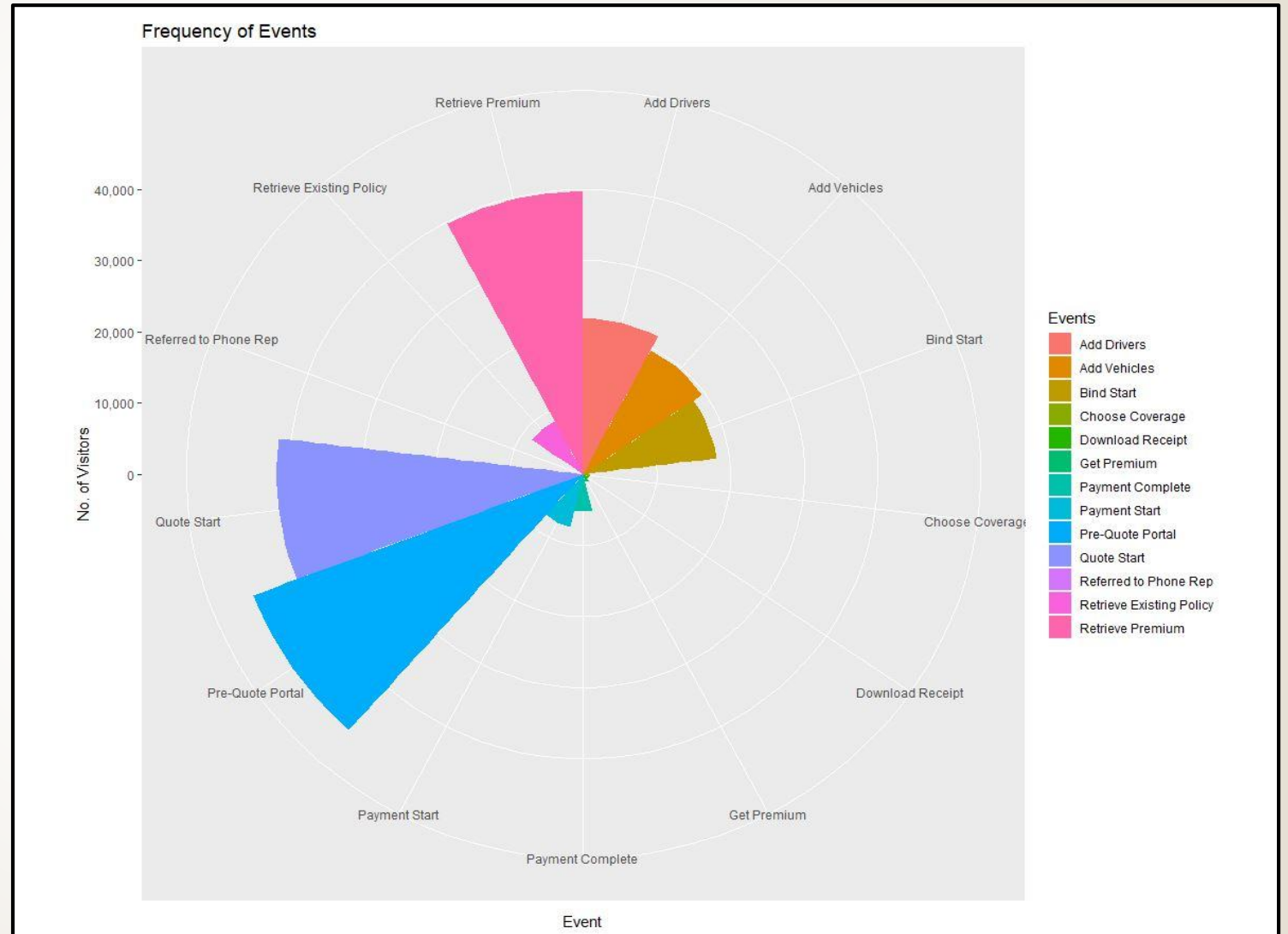
- The major visitors to our website use Chrome browser.
- It can also be noted that while chrome users are in majority, Iphone user do not use chrome at all , they

only use Safari and Firefox (Which is the least used browser).

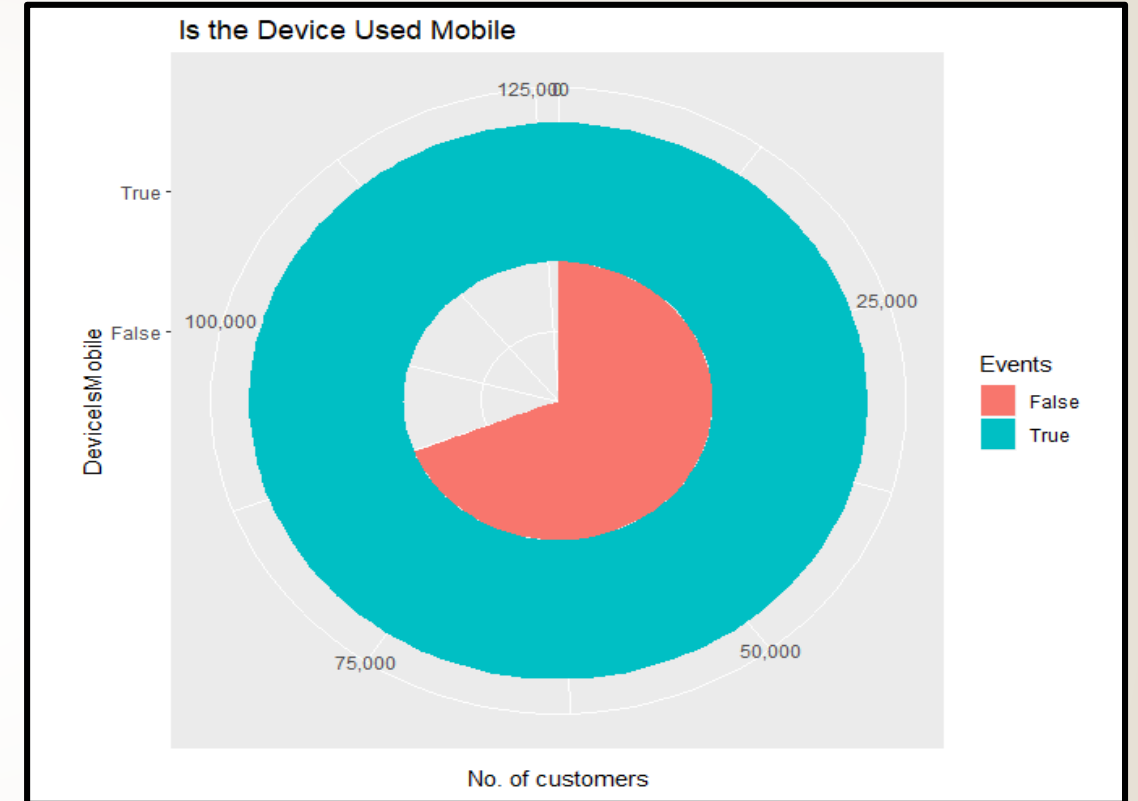
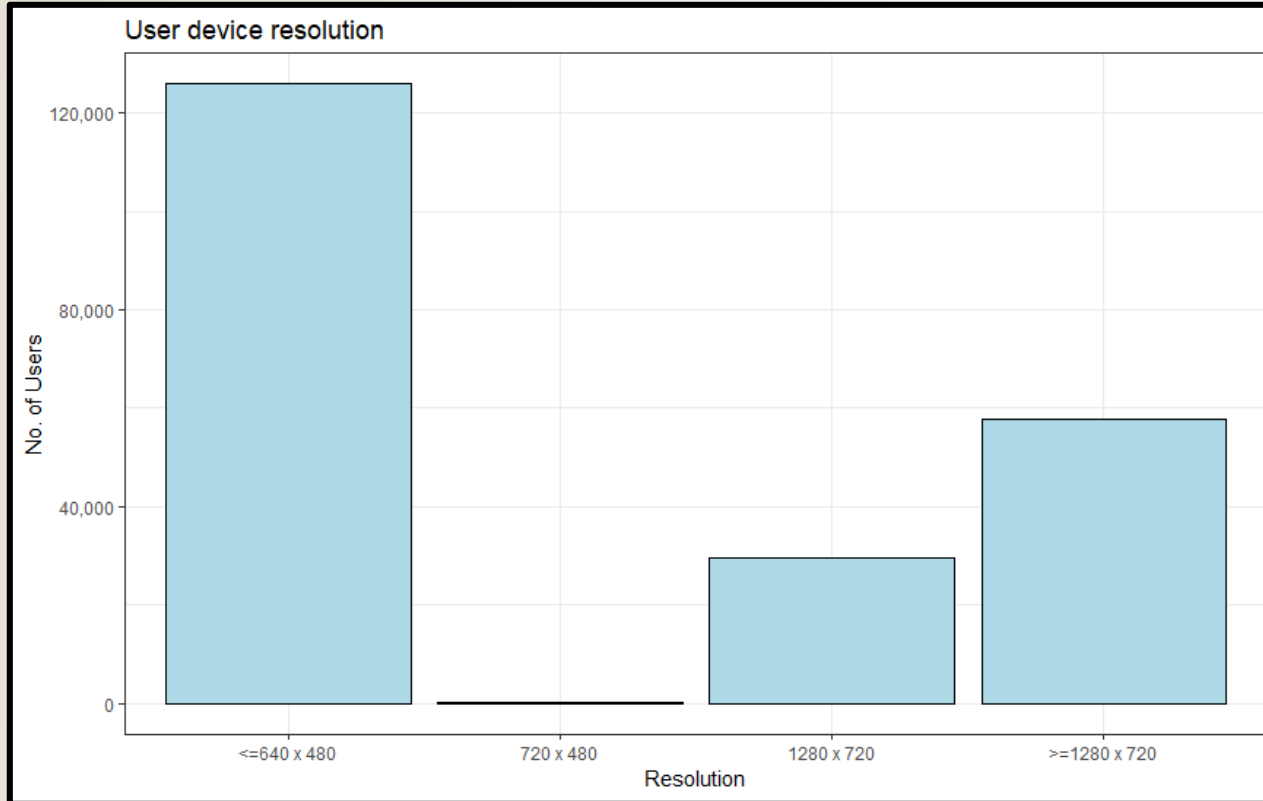
- Hence Website content should be compatible with Chrome as well as Safari.

Analyzing the distribution of Events

- From the plot, it can be observed that the major users of the website accessed the Pre-Quote portal, Quote Start and Retrieve premium.
- So we can conclude that the major visitors are the one's who are looking for a new policy, so they are in the event quote, either visiting to start the search or compare an existing.
- We can see a drastic reduction in the number of visitors who actually make it to the bind step to get a more precise quote.
- The customers reaching the final sale step of the process are only about 3% of the total users visiting the site.



User Device Characteristics

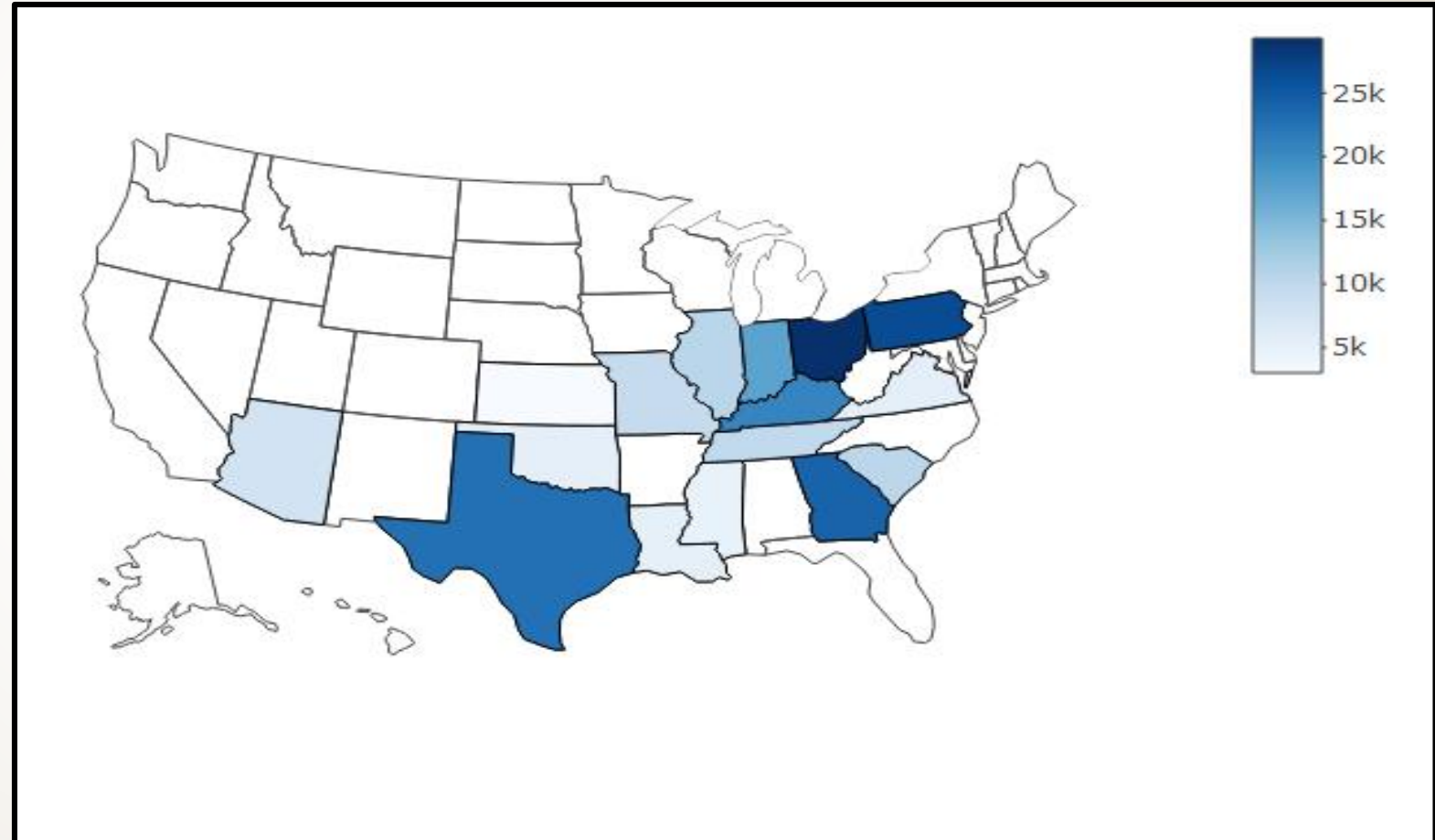


- Major devices used to access the website have resolution less than or equal to 640 x 480.
- The website is frequently accessed through mobile devices as compared to other devices such as Laptops, Desktops and Tablets.

➤ Hence the website contents should be designed considering the situation that it will be accessed from a mobile device with a resolution of 640 x 480 or less.

User distribution across USA

- The Major user of SafeAuto website are located in Ohio followed by Pennsylvania, then by Georgia.
- The Major website visits are from the following states: OH, PA, GA, TX, KY, IN, IL, SC.
- Hence major online marketing and advertising budget should be allocated to these states.



From visualizing some of the attributes in our data we can conclude the following:

- Users access the website majorly around the noon time and at the start of the week.
- Chrome is the most common browser used to access the website.
- Maximum users accessing the website are from the states: OH, PA, GA, TX, KY, IN, IL, SC.
- The website is majorly accessed using mobile phones with a resolution of 640 x 480 or less.
- Only 2.94% of the users visiting the website actually purchase an insurance policy.