Sight Latency Test

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Initialization of data frames

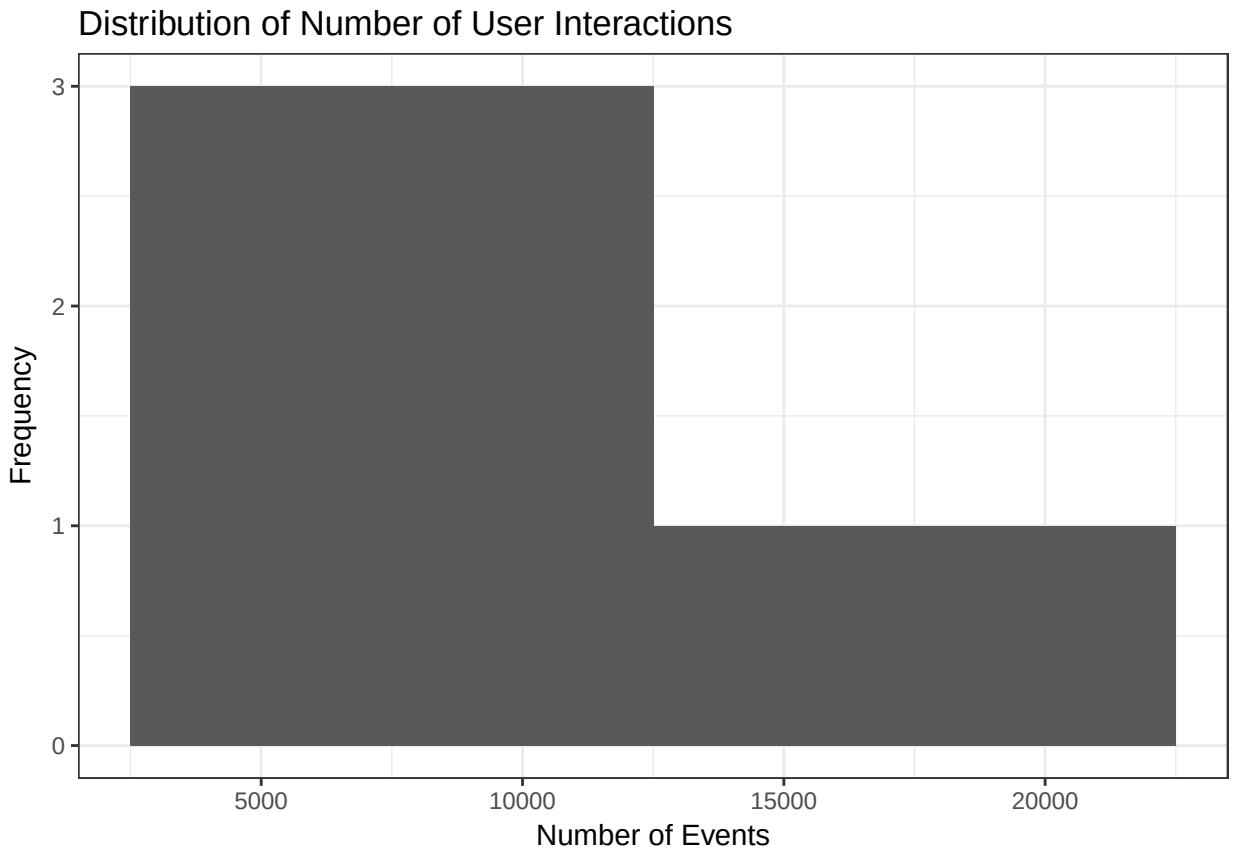
Currently, the folder variable is set to be the path to the csvHolder file in my downloads section. It needs to be set to yours when you use this.

```
# folder variable should be changed to be the path to the csvHolder file
folder <- "csvHolder/"
latencyFiles <- list.files(path=paste(folder, "latency", sep='/'), pattern="*.csv")
latency <- lapply(latencyFiles, function(file){ read.csv( paste(folder, "latency", file, sep='/'), head
eventsFiles <- list.files(path=paste(folder, "events", sep='/'), pattern="*.csv")
events <- lapply(eventsFiles, function(file){ read.csv(paste(folder, "events", file, sep='/'), header =
```

Distribution of User Interactions

```
events_df <- vector()
for(i in 1: length(events)){
  events_df <- c(events_df, nrow(as.data.frame(events[i])))
}
events_df <- data.frame(events_df)
```

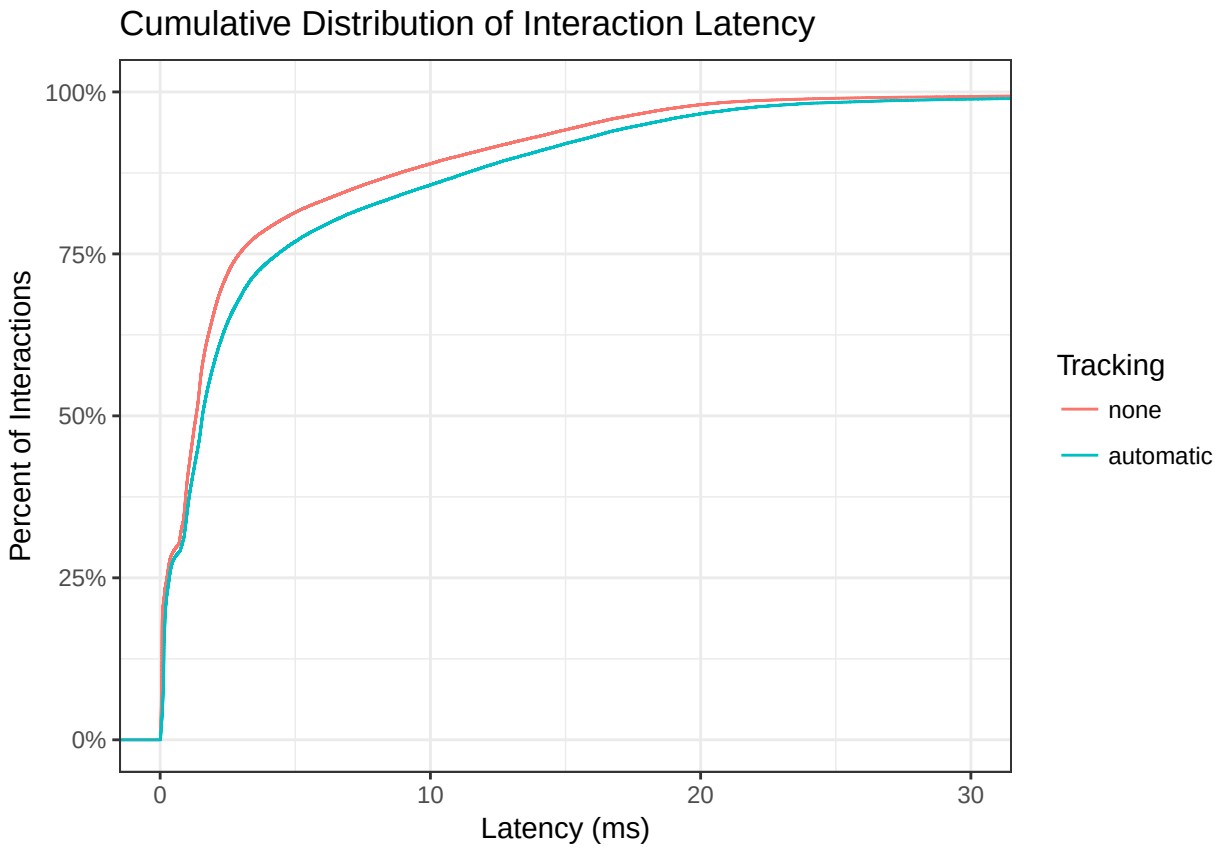
```
ggplot(events_df, aes(events_df)) +
  geom_histogram(binwidth = 5000) +
  labs(x="Number of Events", y="Frequency", title="Distribution of Number of User Interactions") +
  theme_bw()
```



Cumulative Distribution Charts

```
aggregate_latencies <- ldply(latency, data.frame)
```

```
ggplot(aggregate_latencies, aes(x=V2)) + stat_ecdf(aes(color=V3)) +
  labs(x="Latency (ms)", y="Percent of Interactions", color="Tracking", title="Cumulative Distribution
  scale_y_continuous(labels=scales::percent) + coord_cartesian(xlim=c(0, 30)) +
  theme_bw()
```



Stacked Barchart of Interactions

In order to cut down on the number of elements in the first legend, I just didn't label the events never experienced latency over 500 ms. For the second legend, I had it ignore (and not label) events that made up less than 0.1% of the total number of events.

```
above <- aggregate_latencies[aggregate_latencies$V2 >= 500,]
above <- data.frame(table(above$V1))
above <- above[above$Freq != 0,]

all <- prop.table(table(aggregate_latencies$V1))
all <- data.frame(all)
all <- all[all$Freq > 0.001,]
```

```
ggplot(above, aes(x="", y=Freq/sum(Freq), fill=Var1)) + geom_bar(width = 1, stat = "identity") +
  labs(x="", y="Percentage of Interactions", fill="Legend") +
  scale_y_continuous(labels=scales::percent) +
  theme_bw()
```


```
ggplot(all, aes(x="", y=Freq/sum(Freq), fill=Var1)) + geom_bar(width = 1, stat = "identity") +
  labs(x="", y="Percentage of Interactions", fill="Legend") +
  scale_y_continuous(labels=scales::percent) +
  theme_bw()
```