Aerodynamic E-Commerce Funnel Analysis

Springboard Capstone 3

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Project Proposal

Funnel analysis of the customer journey for an e-commerce platform. The analysis will start from first user interaction with the website, following through each step until purchase.
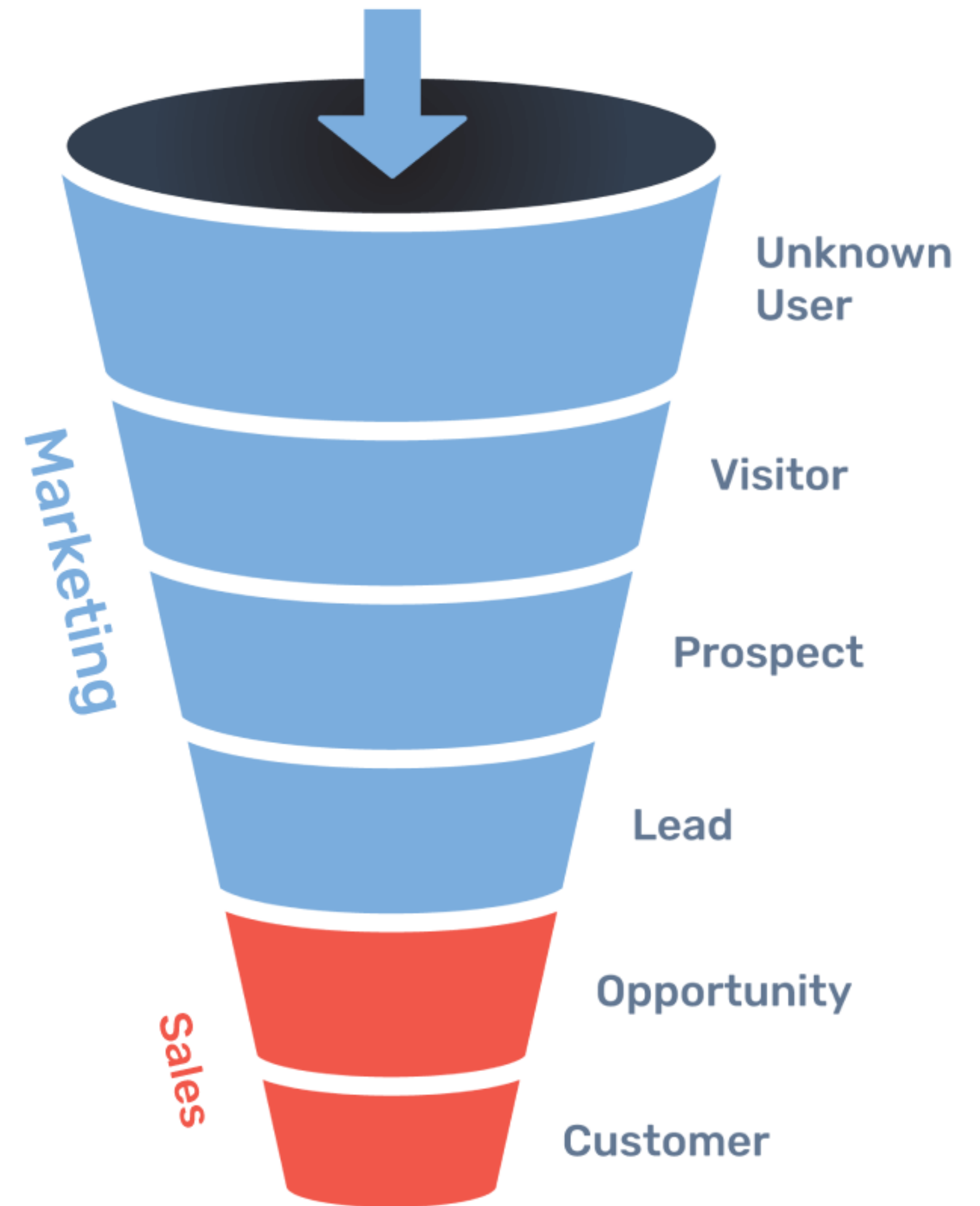
1. Home Page

2. Internal Search Page

3. Purchase Page

4. Purchase Confirmation

I'll make note of the conversion rates between each step, the overall conversion rate, and any notable features of the users the affect those outcomes. Additionally, I will preform a timeline analysis to see if these features are consistent over time, or if they differ depending on the date and time the users interact with the site (time of day, day of the week, quarter, etc).

Finally, I'll create a public dashboard of this information to provide an interactive element that will be included in the final presentation. I'll use Tableau Public for data visualization, which will make this analysis easily discoverable and highly interactive so that others can look for insights as well.

Problem Identification

Assist management in understanding their customer funnel from first interaction to purchase over a four month period that included a considerable loss in users.

From this

Data Wrangling

- Data Acquisition: 5 Datasets
- Merging
- Cleaning
- Validation
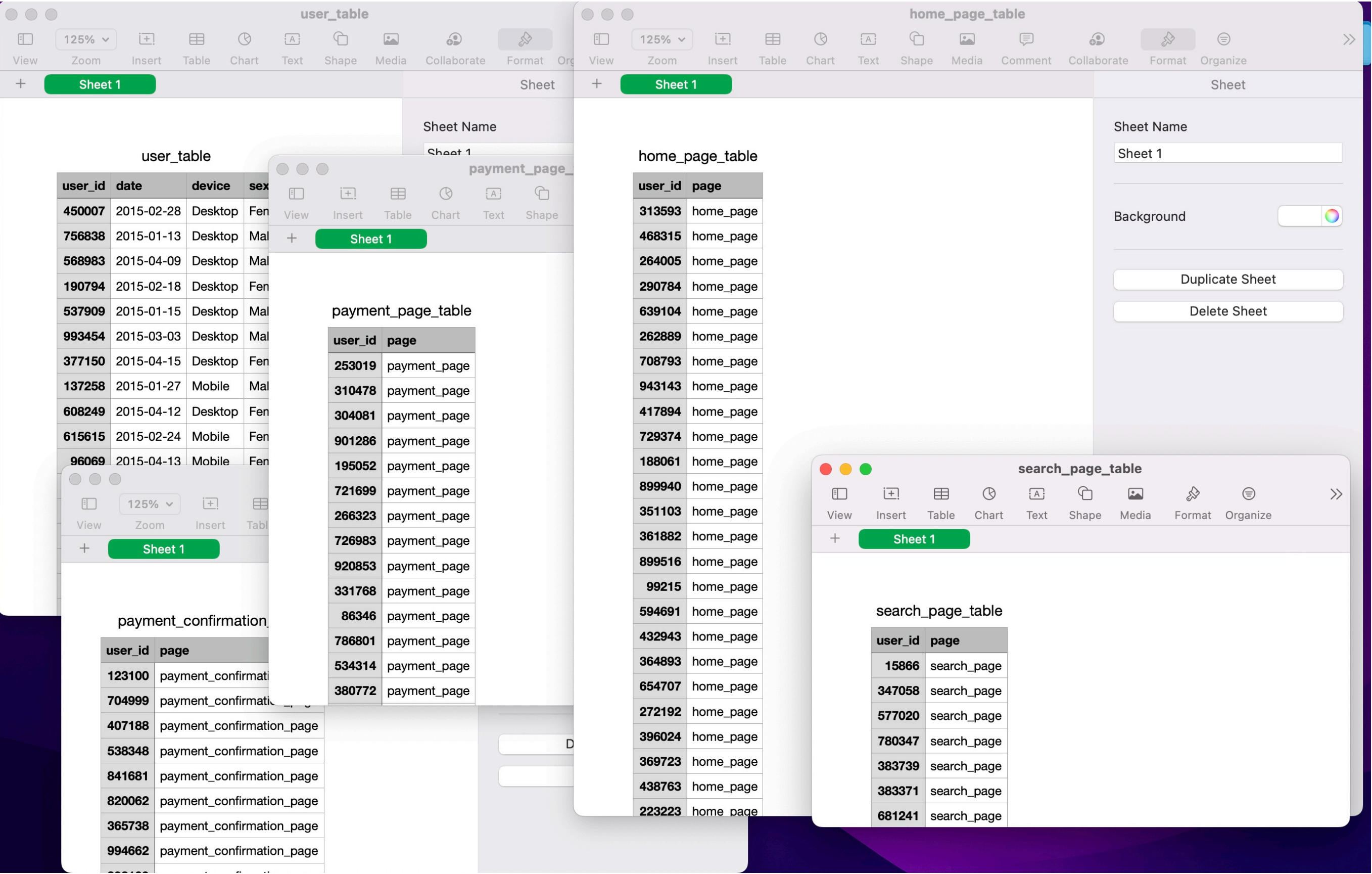
To this

```
df.to_csv('funnel_df.csv')
```
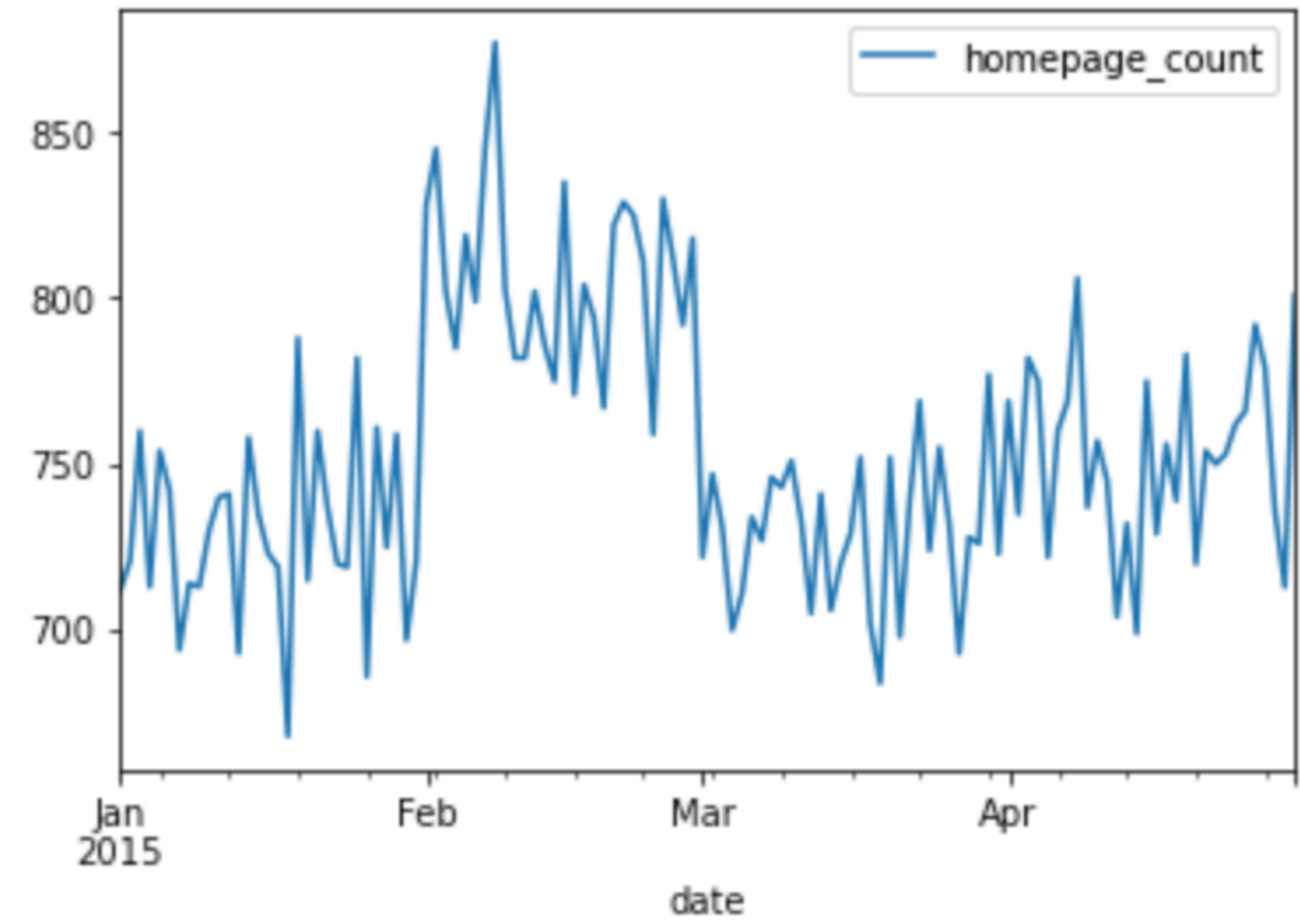
Exploratory Data Analysis

```
fig = px.funnel(data, x='number', y='stage',title='Funnel')
fig.show()
```

Funnel
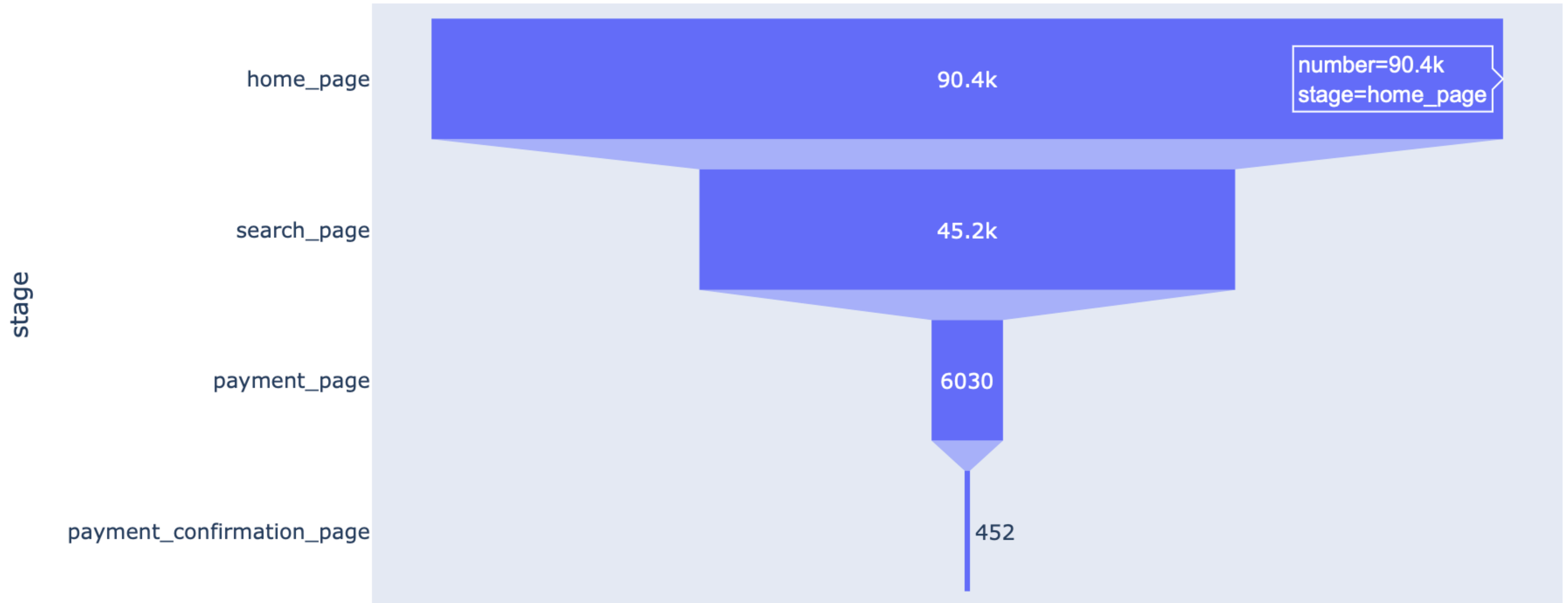
```
trends_over_time(df,"home_page","df_homepage",'homepage_
```



```
data = dict(
    number = [60200,30100,3010,150],
    stage = ['home_page','search_page','payment_page','payment_confirmation_page'])
fig = px.funnel(data, x='number', y='stage', title = 'Desktop Funnel')
fig.show()
```



```
trends_over_time(df,"payment_confirmation_page","df_confirm",'payment
```
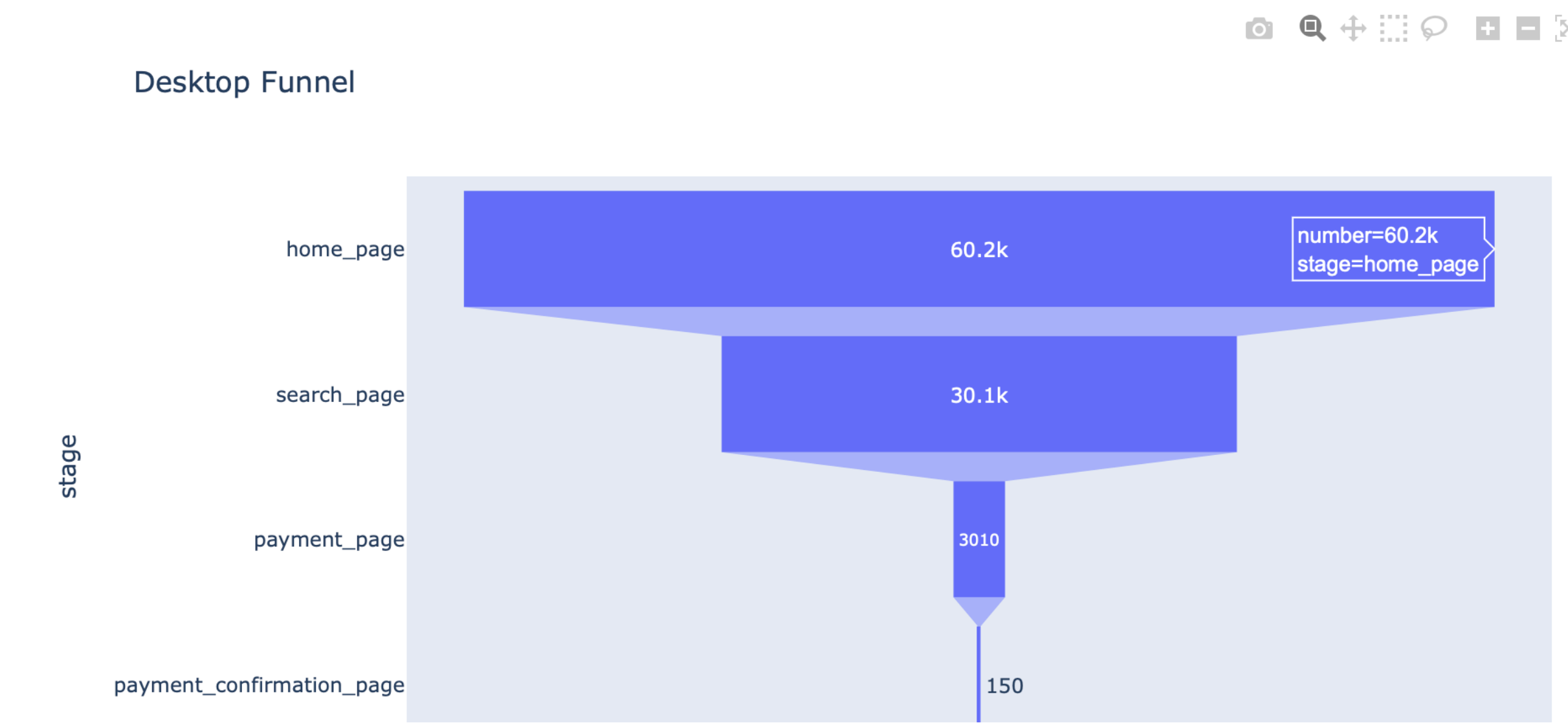


```
data = dict(
    number = [30200,15100,3020.0,302.0],
    stage = ['home_page','search_page','payment_page','payment_confirmation_page'])
fig = px.funnel(data, x='number', y='stage', title = 'Mobile Funnel')
fig.show()
```

Home Page

Search Page

Checkout Page

Payment Complete

50.0% Made it from the home page to search for products

13.3% Found what they were looking for and placed it in their cart

7.5% Completed their payment from checkout

90,400
Home Page

45,200
Search Page

6,030
Checkout Page

452
Payment Complete

0.5%
Overall Conversion

Sex
☑ Female
☑ Male

Device
☑ Desktop
☑ Mobile

Date
January 1, 2015   April 30, 2015

Analysis and Visualization

1500

1000

500

0

Users

Jan 5   Jan 15   Jan 25   Feb 4   Feb 14   Feb 24   Mar 6   Mar 16   Mar 26   Apr 5   Apr 15   Apr 25   May 5