In [1]:
```
 # For the  Funnel analysis, Lets starts by importing the necessary Python libraries and the dataset:
import pandas as pd
import plotly.graph_objs as go
import plotly.express as px
import plotly.io as pio
pio.templates.default = "plotly_dark"
User_data = pd.read_csv(r'C:\Users\OKONKWO HENRY\Downloads\user_data.csv')
print(User_data.head())
```

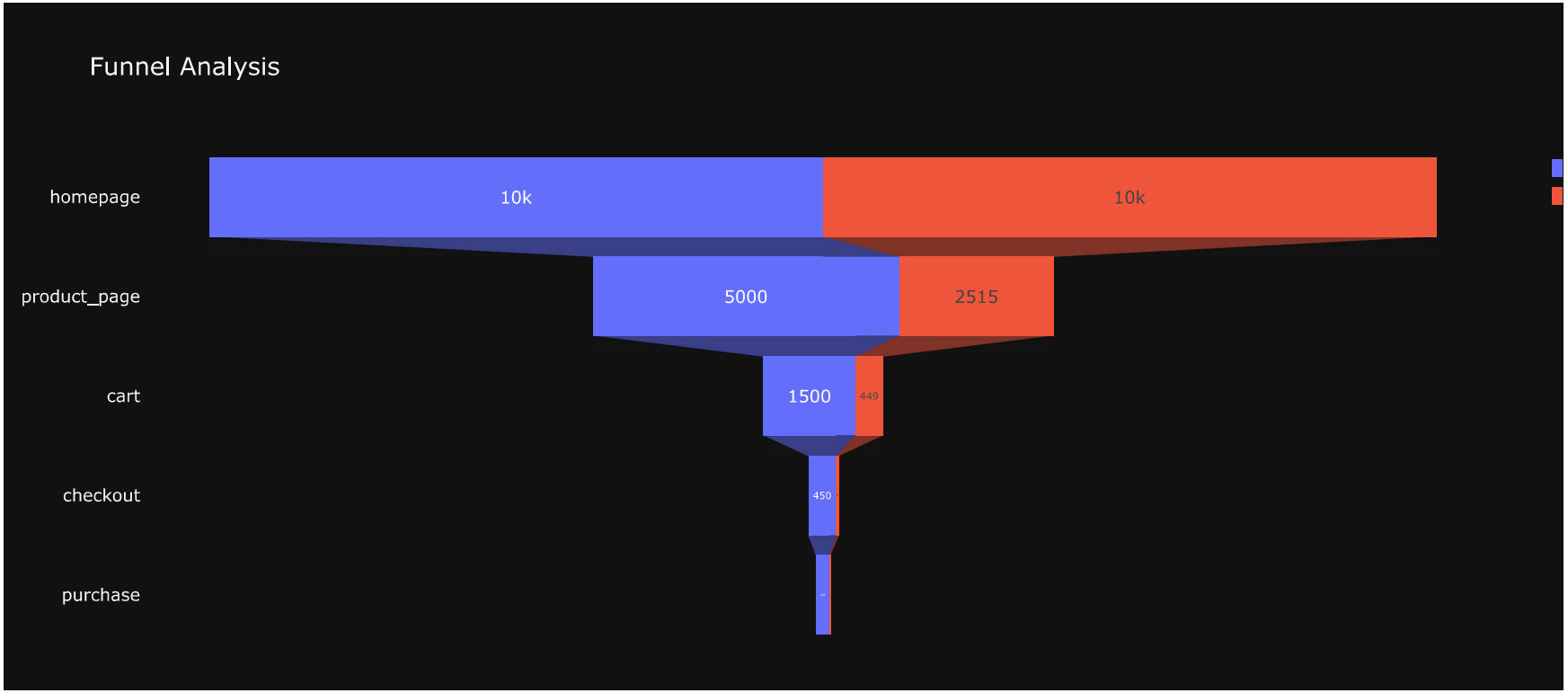
```
  user_id     stage  conversion
0  user_0  homepage        True
1  user_1  homepage        True
2  user_2  homepage        True
3  user_3  homepage        True
4  user_4  homepage        True
  user_id     stage  conversion
0  user_0  homepage        True
1  user_1  homepage        True
2  user_2  homepage        True
3  user_3  homepage        True
4  user_4  homepage        True
```

In [2]:
```
# Count for each Stage
print(User_data["stage"].value_counts())
```

```
homepage        10000
product_page     5000
cart             1500
checkout          450
purchase          225
Name: stage, dtype: int64
homepage        10000
product_page     5000
cart             1500
checkout          450
purchase          225
Name: stage, dtype: int64
```

In [3]:
```
# Analysis
#define the funnel stages
funnel_stages = ['homepage', 'product_page', 'cart', 'checkout', 'purchase']

#calculate the number of users and conversions for each stage
num_users = []
num_conversions = []

for stage in funnel_stages:
    stage_users = User_data[User_data['stage'] == stage]
    num_users.append(len(stage_users))
    num_conversions.append(stage_users['conversion'].sum())

#create a funnel chart
fig = go.Figure(go.Funnel(y=funnel_stages,x=num_users,textposition='inside',textinfo='value', name='Users'))

fig.add_trace(go.Funnel( y=funnel_stages,x=num_conversions,textposition='inside',textinfo='value',name='Conversions'))
```

```
fig.update_layout(title='Funnel Analysis',funnelmode='stack')

fig.show()
```



In [4]:
```
# DATA INSIGHT
# This shows that 36 check out was completed on the site which shows a 8 percent of the total checkout visitation on the page.
# Ths shows more work need to be done to improve this rate of users that completed the chckout process.
```