In [2]:
```
from matplotlib import pyplot as plot
```

In [3]:
```
import numpy as np
```

In [4]:
```
import pandas as pd
```

In [6]:
```
document = pd.read_csv(r'C:\Users\bonin\Downloads\booking_of_hotel.csv')
```

In [7]:
```
df = pd.DataFrame(document)
```

In [8]:
```
df.head()
```

Out[8]:

	hotel	is_canceled	lead_time	arrival_date_year	arrival_date_month	arrival_date_week_numbe
0	Resort Hotel	0	342	2015	July	2
1	Resort Hotel	0	737	2015	July	2
2	Resort Hotel	0	7	2015	July	2
3	Resort Hotel	0	13	2015	July	2
4	Resort Hotel	0	14	2015	July	2

5 rows × 32 columns

In [11]:
```
number_of_hotel_bookings = len(df.index)
print(number_of_hotel_bookings)
```

```
119390
```

In [14]:
```
number_of_cancellations = len(df[df['is_canceled'] != 0])
print(number_of_cancellations)
```

```
44224
```

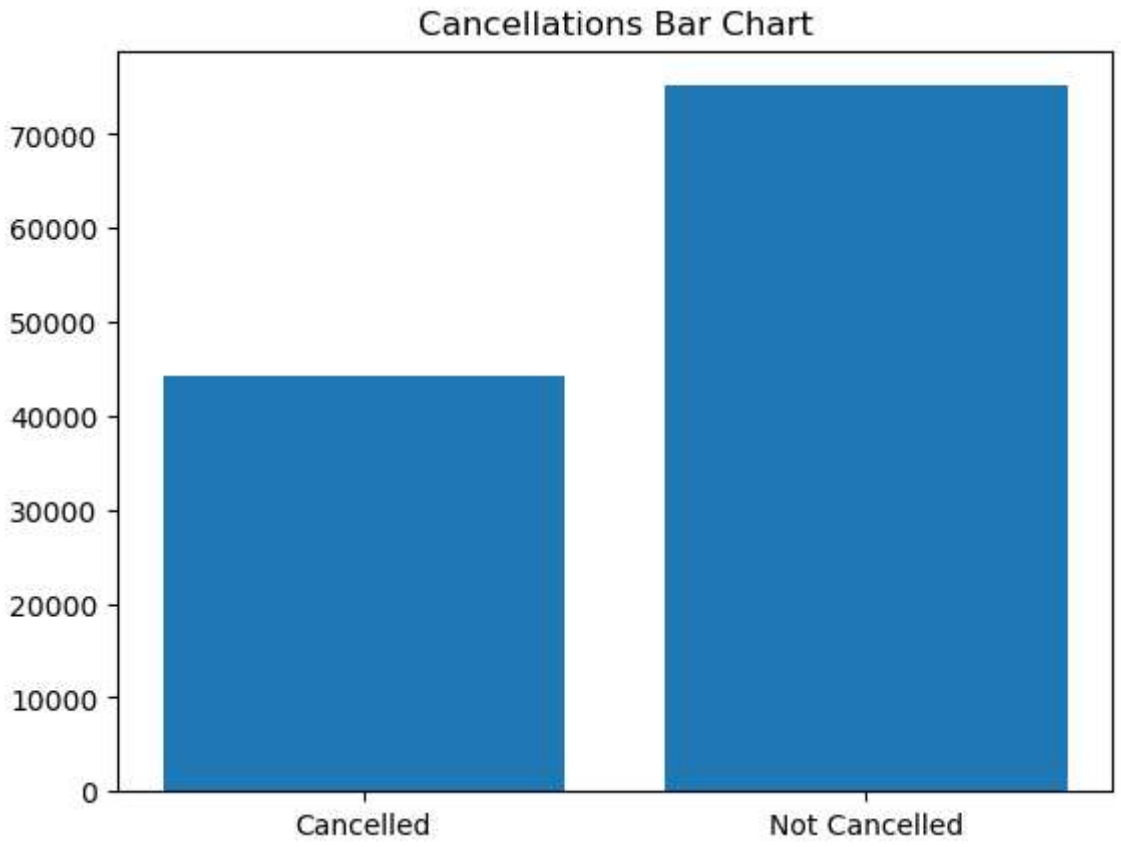
In [16]:
```
number_of_noncancellations = len(df[df['is_canceled'] == 0])
print(number_of_noncancellations)
```

```
75166
```

In [21]:
```
cancel_array = [number_of_cancellations, number_of_noncancellations]
```

In [26]:
```
plot.bar(["Cancelled", "Not Cancelled"], cancel_array)
plot.title("Cancellations Bar Chart")
```

Out[26]: Text(0.5, 1.0, 'Cancellations Bar Chart')

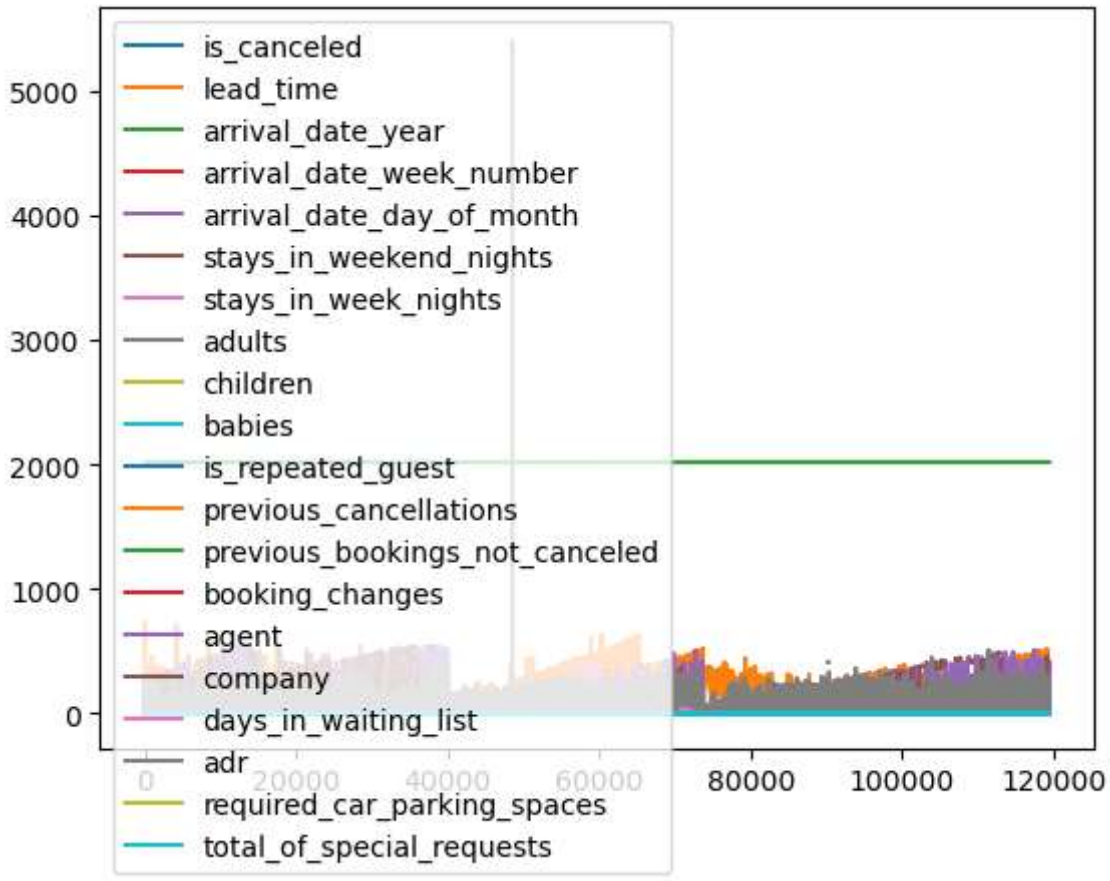


In [32]:
```
most_popular_month_of_arrival = df["arrival_date_month"].mode()
print(most_popular_month_of_arrival)
```

```
0    August
Name: arrival_date_month, dtype: object
```

In [51]:
```
#plot.hist(df["arrival_date_month"], rwidth=0.1)
df.plot()
```

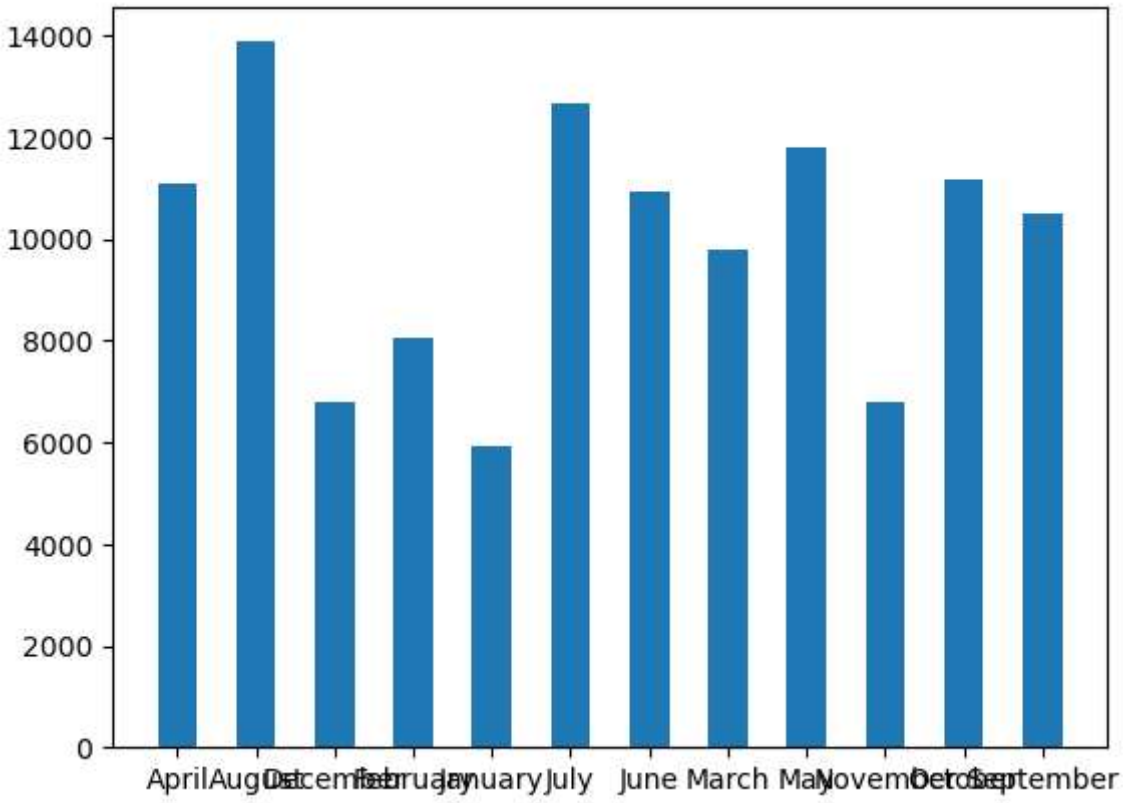
Out[51]: <Axes: >



In [57]:
```
month_array = np.array(document.arrival_date_month)
month, count = np.unique(month_array, return_counts=True)
```

In [65]:
```
plot.bar(month, count, width=0.5)
```

Out[65]:
```
<BarContainer object of 12 artists>
```

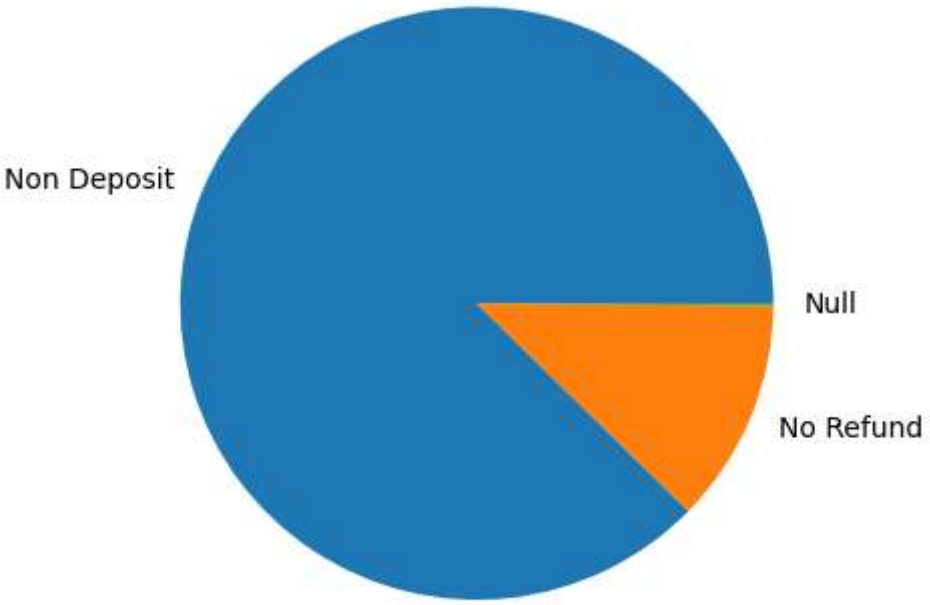


In [69]:
```
plot.pie(df["hotel"].value_counts(), labels=["City Hotel", "Resort Hotel"])
```

Out[69]:
```
([<matplotlib.patches.Wedge at 0x2698d521d80>,
  <matplotlib.patches.Wedge at 0x2698d521c90>],
 [Text(-0.5433858480011854, 0.956416133381298, 'City Hotel'),
  Text(0.5433858480011848, -0.9564161333812983, 'Resort Hotel')])
```

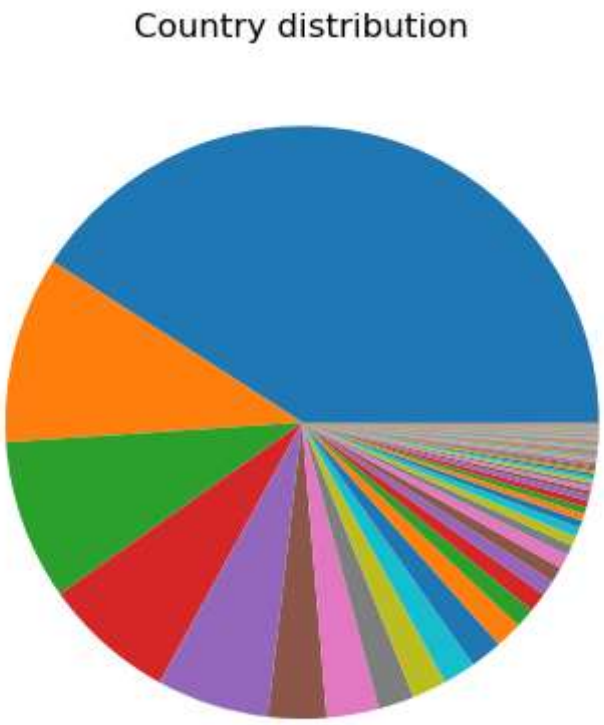
In [73]:
```
plot.pie(df["deposit_type"].value_counts(), labels=["Non Deposit", "No Refund"
```

Out[73]:
```
([<matplotlib.patches.Wedge at 0x2698d690ee0>,
  <matplotlib.patches.Wedge at 0x2698d690df0>,
  <matplotlib.patches.Wedge at 0x2698d691570>],
 [Text(-1.0181924325401428, 0.4162741528343872, 'Non Deposit'),
  Text(1.0164087119406244, -0.4206106635490841, 'No Refund'),
  Text(1.0999900062128796, -0.004688947833933911, 'Null')])
```



In [87]:
```
plot.pie(df["country"].value_counts())
plot.title("Country distribution")
```

Out[87]: Text(0.5, 1.0, 'Country distribution')



In [ ]: