In [1]:

```
import plotly
import cufflinks as cf
import pandas as pd
import numpy as np
```

In [2]:

```
# Enabling the offline mode for interactive plotting locally
from plotly.offline import download_plotlyjs,init_notebook_mode,plot,iplot
init_notebook_mode(connected=True)
cf.go_offline()
```

In [4]:

```
train = pd.read_csv("train.csv")
test = pd.read_csv("train.csv")
```

In [5]:

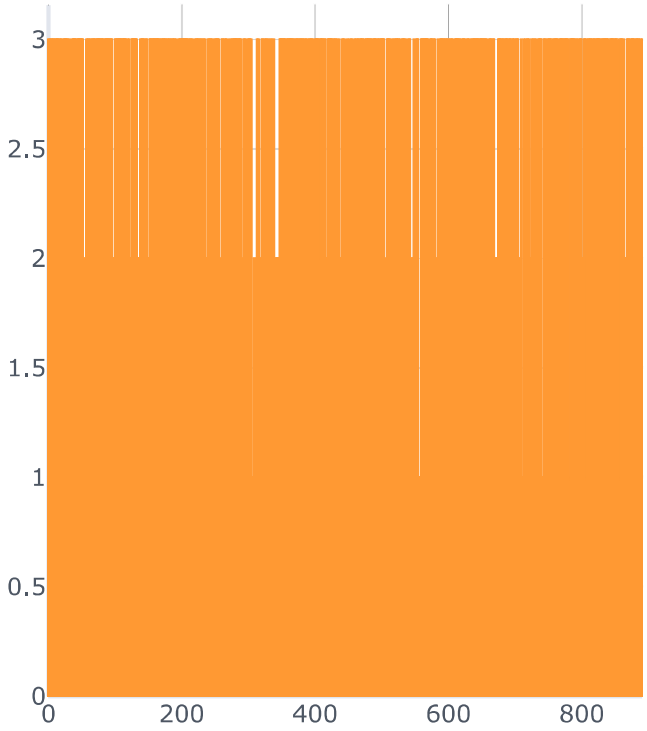
```
train.head()
```

Out[5]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	C
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	

In [6]:

```
train['Pclass'].iplot(kind = 'bar')
```



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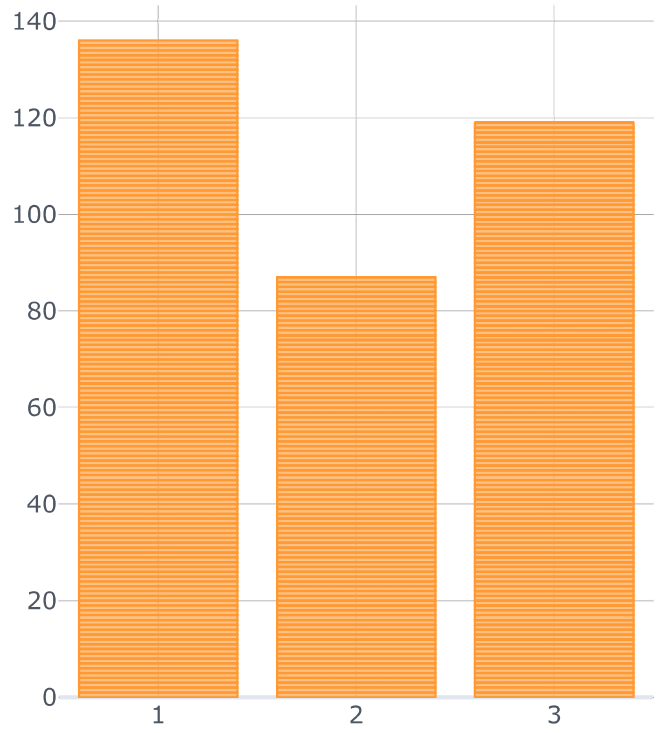
In [7]:

```
train.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 891 entries, 0 to 890
Data columns (total 12 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   PassengerId  891 non-null    int64
 1   Survived     891 non-null    int64
 2   Pclass       891 non-null    int64
 3   Name         891 non-null    object
 4   Sex          891 non-null    object
 5   Age          714 non-null    float64
 6   SibSp        891 non-null    int64
 7   Parch        891 non-null    int64
 8   Ticket       891 non-null    object
 9   Fare         891 non-null    float64
 10  Cabin        204 non-null    object
 11  Embarked     889 non-null    object
dtypes: float64(2), int64(5), object(5)
memory usage: 83.7+ KB
```

In [10]:

```
train.iplot(kind='bar', x='Pclass', y='Survived')
```



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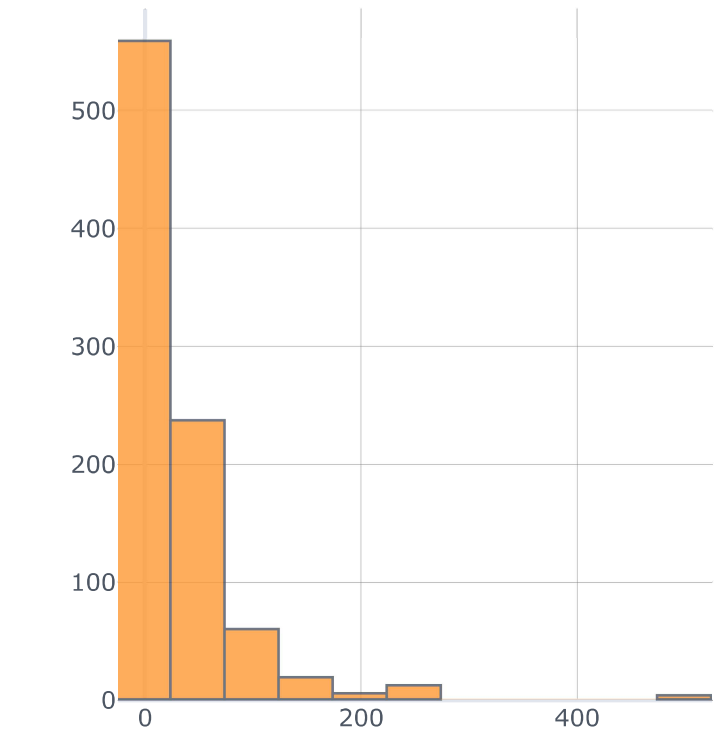
Pclass는 1,2,3의 값이 있다.

In [11]:

```
train['Fare'].iplot(kind = 'histogram', bins = 20, title = "Passenger's Age")
```



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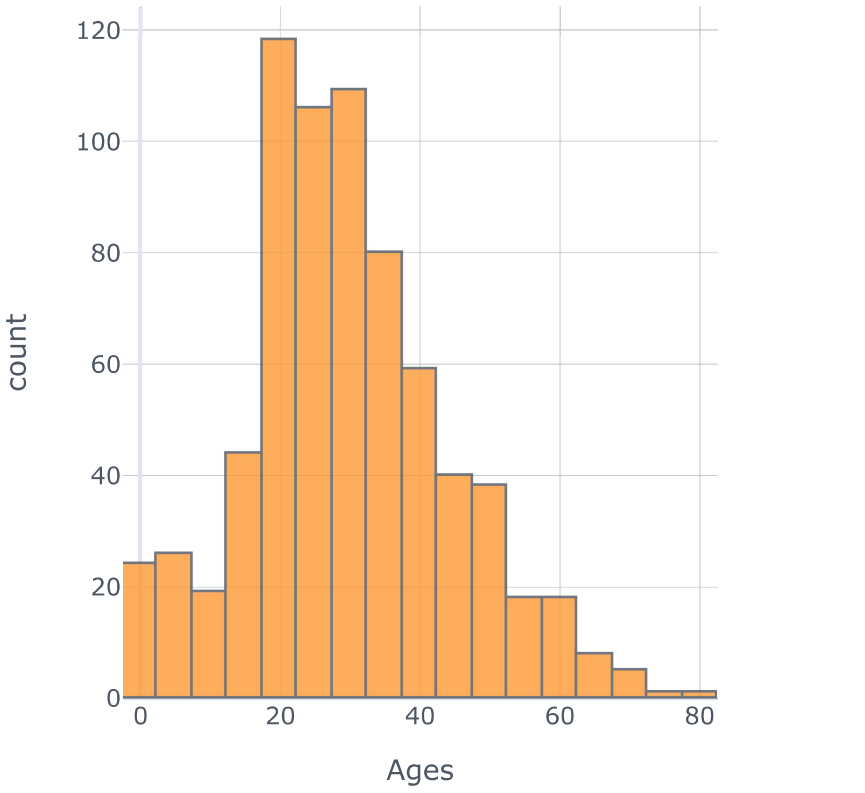
In [15]:

```
train["Age"].iplot(kind="histogram", bins=20, theme="white", title="Passenger's Ages", xTitle = 'Ag
```



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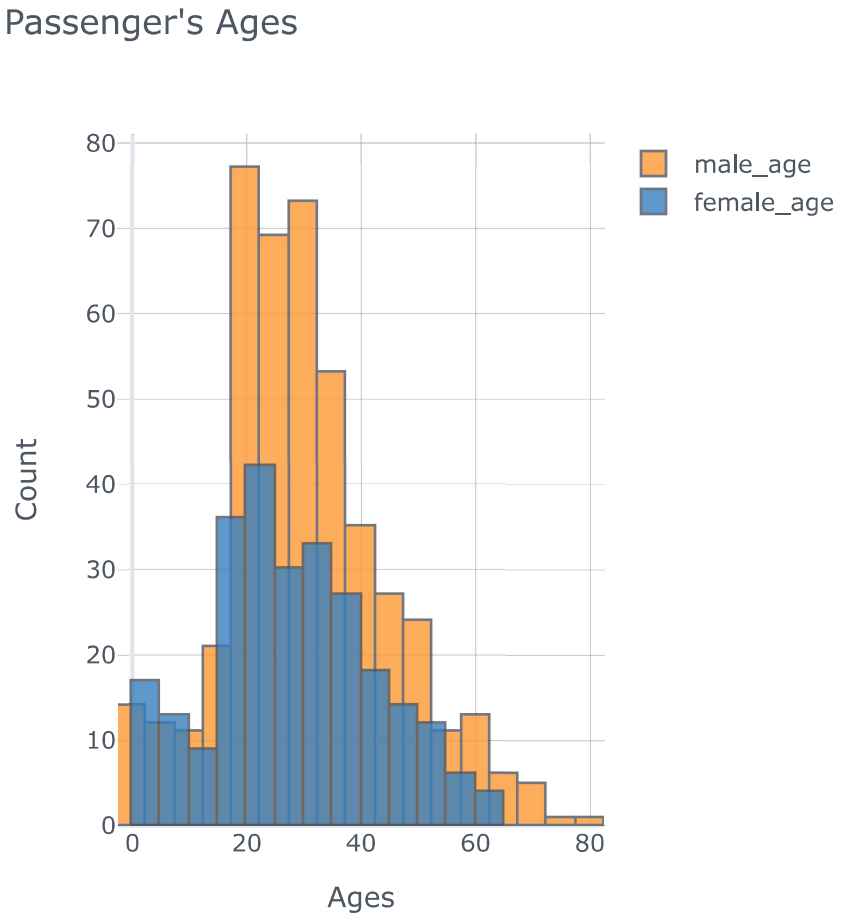
In [16]:

```
'Age"]
e"]["Age"]

istogram", bins = 20, theme="white", title = "Passenger's Ages", xTitle = 'Ages', yTitle = 'Count')
```



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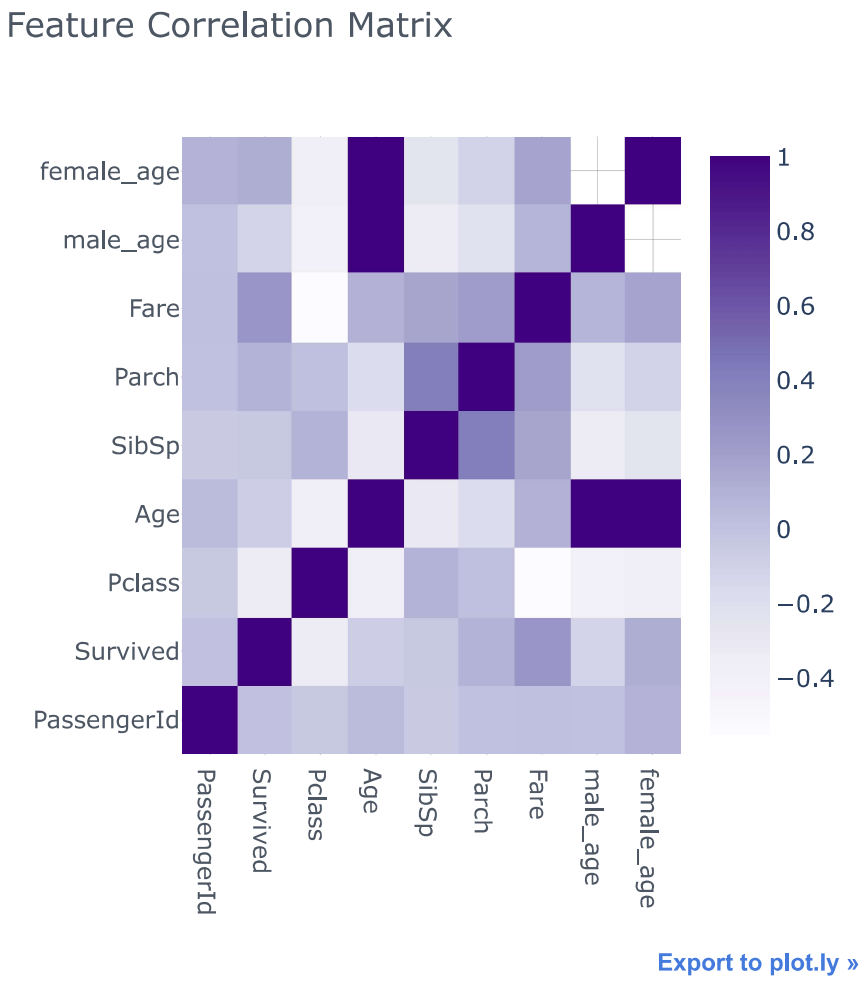
Heatmap

In [17]:

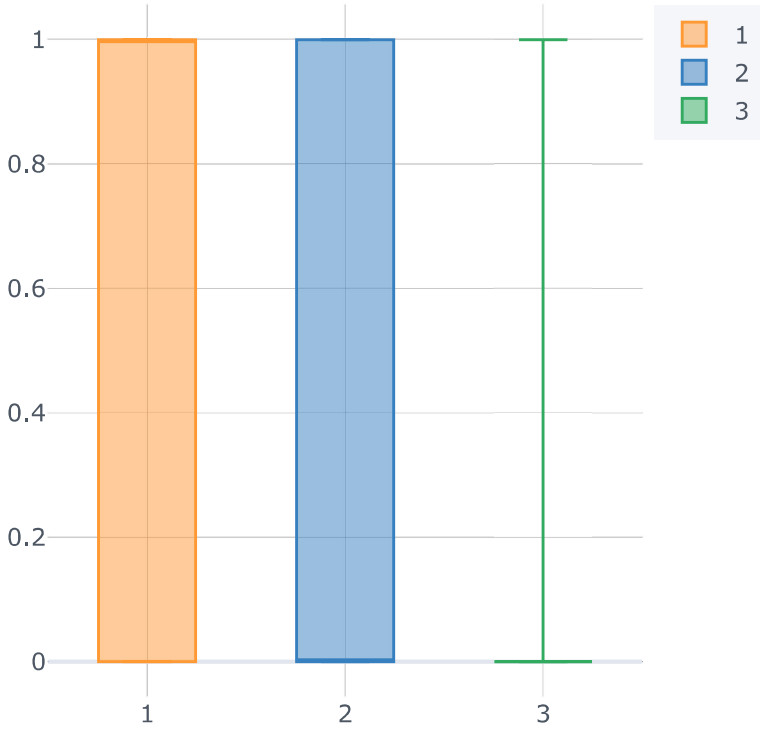
```
train.corr().iplot(kind='heatmap', colorscale="Purples", title = "Feature Correlation Matrix")
```



Boxplot

In [19]:

```
train[['Pclass', 'Survived']].pivot(columns='Pclass', values = 'Survived').iplot(kind='box')
```



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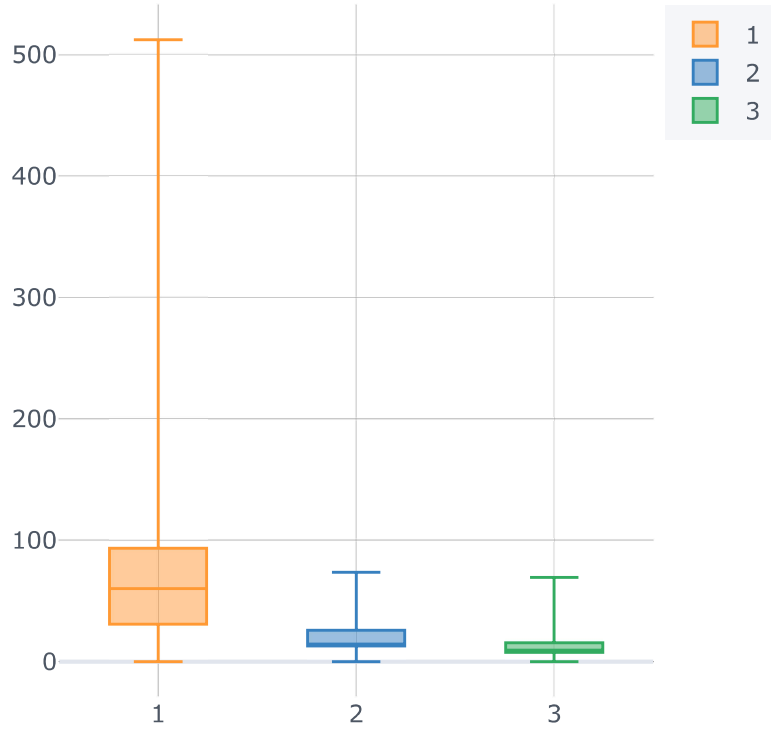
In [20]:

```
train[['Pclass', 'Fare']].pivot(columns='Pclass', values='Fare').iplot(kind='box')
```



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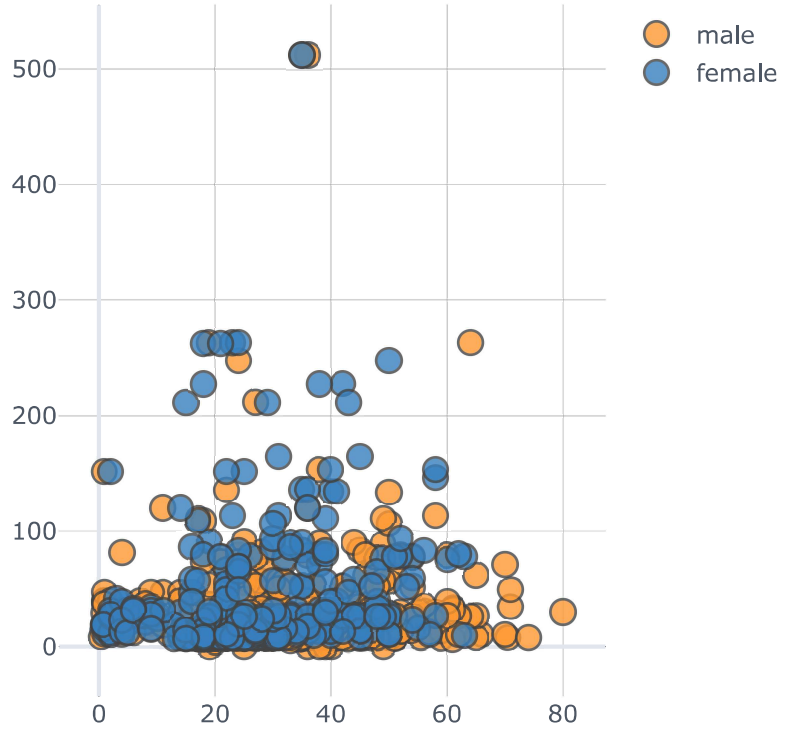
Scatter plots

In [23]:

```
df.iplot(kind="scatter", theme="white",x="Age",y="Fare",
            categories="Sex")
```



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