

# Write a Pandas program to split the following dataframe by school code and get mean, min, and max value of age for each school. Also generate a horizontal bar chart based on the result and explain the conclusion.

```
import pandas as pd
```

```
import matplotlib.pyplot as plt
```

```
# Creating the DataFrame
```

```
student_data = pd.DataFrame({  
    'school_code': ['s001', 's002', 's003', 's001', 's002', 's004'],  
    'class': ['V', 'V', 'VI', 'VI', 'V', 'VI'],  
    'name': ['Alberto Franco', 'Gino Mcneill', 'Ryan Parkes', 'Eesha Hinton', 'Gino Mcneill',  
            'David Parkes'],  
    'age': [12, 12, 13, 13, 14, 12],  
    'height': [173, 192, 186, 167, 151, 159],  
    'weight': [35, 32, 33, 30, 31, 32],  
    'address': ['street1', 'street2', 'street3', 'street1', 'street2', 'street4']  
})
```

```
# Grouping the data by 'school_code' and calculating mean, min, and max of 'age'
```

```
age_stats = student_data.groupby('school_code')['age'].agg(['mean', 'min', 'max'])
```

```
# Displaying the result
```

```
print("Mean, Min, and Max age for each school:")
```

```
print(age_stats)
```

```
# Plotting the results in a horizontal bar chart
```

```
age_stats.plot(kind='barh', figsize=(10, 6), color=['skyblue', 'lightgreen', 'salmon'],
edgecolor='black')

plt.title('Mean, Min, and Max Age for Each School')

plt.xlabel('Age')

plt.ylabel('School Code')

plt.legend(title='Age Statistics', loc='best')

plt.show()
```

# Output=>

Mean, Min, and Max age for each school:

school_code	mean	min	max
s001	12.5	12	13
s002	13.0	12	14
s003	13.0	13	13
s004	12.0	12	12

