```
import numpy as np
import pandas as pd
import matplotlib.pyplot  as plt
import seaborn as sns

df=pd.read_csv(r"C:\Users\ASUS\Documents\pythonStack\DS_PR\AcademicPerformanc
e_New.csv")

df.head()
```

	Roll No	NationalITy	WT	DSBDA	AI	Average	Grade	PG
0	1.0	India	72.0	72.0	74.0	72.666667	C	Yes
1	2.0	Japan	69.0	90.0	NaN	53.000000	B	No
2	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
3	4.0	China	47.0	NaN	44.0	30.333333	D	Yes
4	5.0	India	76.0	78.0	NaN	51.333333	C	No

```
for i in ['Average','Grade']:
    print(df[i].isnull().sum())
```

```
1
1
```

```
df['Average'] = df['Average'].fillna(df['Average'].median())
```

```
0
```

```
df['Grade']=df['Grade'].fillna(df['Grade'].mode()[0])
print(df['Grade'].isnull().sum())
```

```
0
```

```
q1=df['DSBDA'].quantile(0.25)

q3=df['DSBDA'].quantile(0.75)

IQR= q1-q3

lower=q1-1.5 * IQR,
upper=q3+1.5 * IQR

df['DSBDA']=df['DSBDA'].between(lower,upper)

df['DSBDA'].head()
```

```
0    False
1    False
2    False
3    False
4    False
Name: DSBDA, dtype: bool
```

```
max_value = df['AI'].max()
avg_value = df['AI'].mean()
```

```
max_value,avg_value.round()
```

```
(92.0, 62.0)
```

```
skewness = df['AI'].skew()
```

```
skewness
```

```
-0.4738634917855504
```

```
plt.scatter(df.index, df['WT'], color='red', label='WT Marks')
plt.scatter(df.index, df['AI'], color='yellow', label='AI Marks')
plt.grid(True)
```