

```
In [66]: import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
```

```
In [75]: df = pd.read_csv('df_lwd.csv')
df
df.drop(columns = ['MaxTemp', 'MinTemp', 'MaxRH', 'MinRH'], inplace = True)
df
```

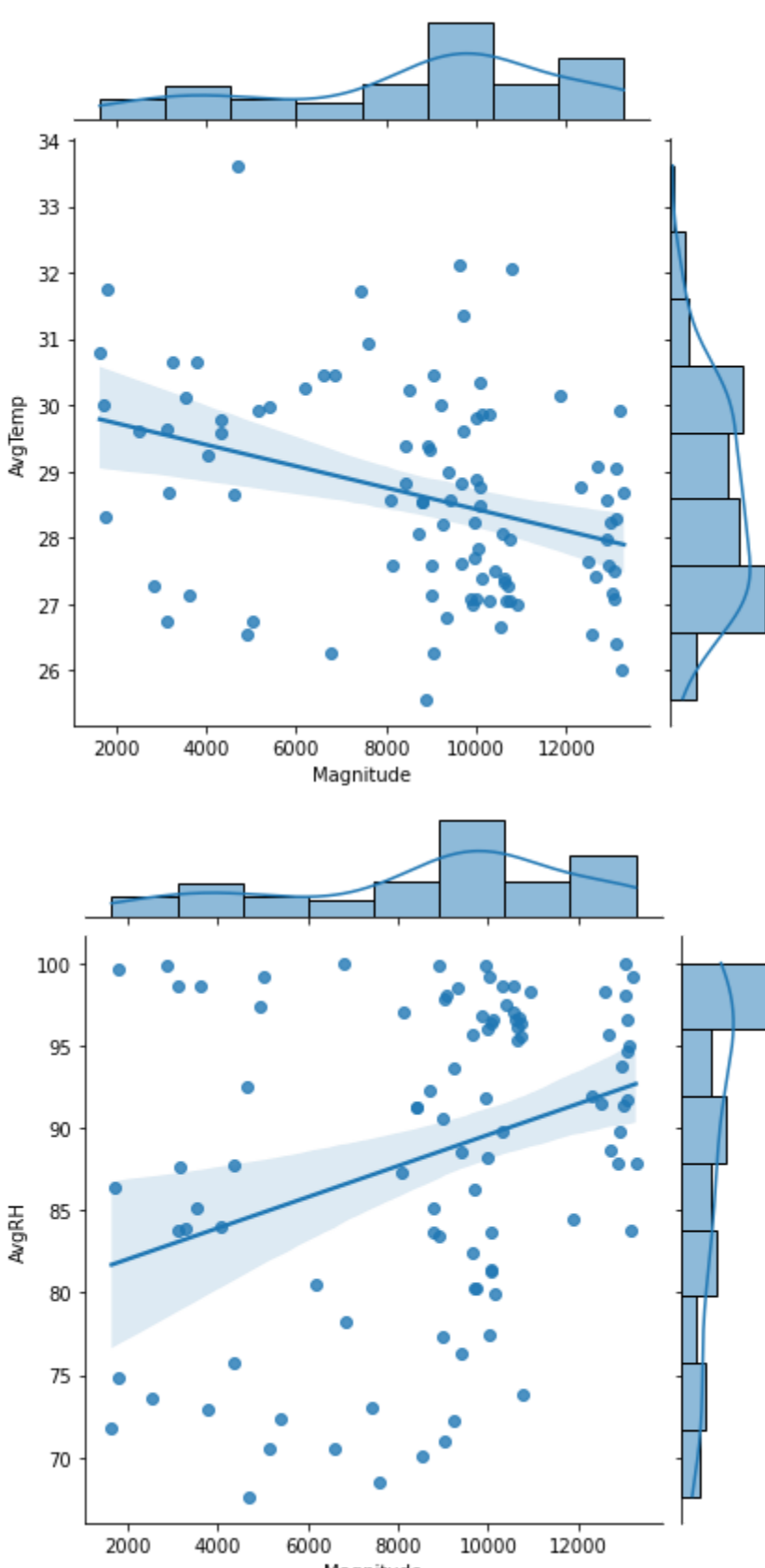
Out[75]:

	Start	Stop	Duration	Magnitude	AvgTemp	AvgRH	Event
0	2021-06-22 18:41:16	2021-06-22 22:59:46	4.308333	3610.91600	27.151364	98.628240	Dew
1	2021-07-23 10:31:58	2021-07-24 06:29:16	19.955000	9680.34420	28.819816	86.292594	Rain
2	2021-07-21 08:56:15	2021-07-21 09:59:59	1.062222	4349.44340	29.578163	87.803047	Irrigation
3	2021-07-24 09:39:40	2021-07-25 06:10:10	20.508333	13116.42844	28.282327	94.942828	Rain
4	2021-08-10 13:26:24	2021-08-11 08:09:36	18.720000	10082.52910	28.770207	81.305225	Rain
...	...	...	...	...	...	...	...
93	2021-07-05 17:05:04	2021-07-05 21:20:24	4.255556	1645.42500	30.807278	71.734531	Dew
94	2021-06-20 13:07:06	2021-06-21 05:09:51	16.045833	9064.85250	26.264681	98.019155	Irrigation
95	2021-09-18 12:27:24	2021-09-19 08:22:44	19.922222	10739.48070	27.052237	96.298435	Rain
96	2021-09-29 04:26:06	2021-09-29 09:09:49	4.728611	3135.17000	29.639370	83.788121	Dew
97	2021-08-03 17:13:49	2021-08-04 08:37:48	15.399722	13071.16457	27.491314	91.669045	Rain

98 rows x 7 columns

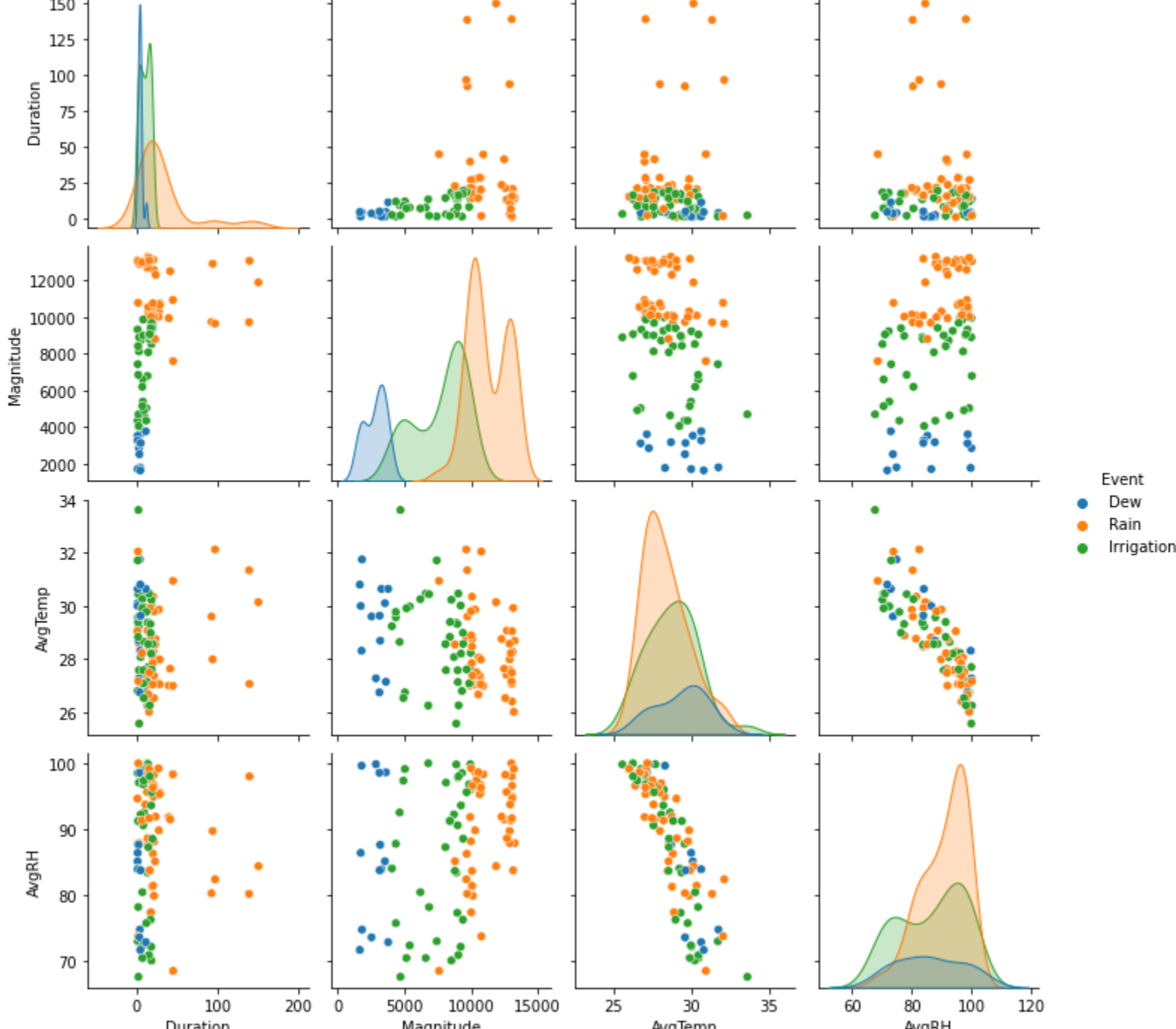
```
In [81]: sns.jointplot(x='Magnitude', y = 'AvgTemp', data = df, kind = 'reg')
sns.jointplot(x='Magnitude', y = 'AvgRH', data = df, kind = 'reg')
```

Out[81]: <seaborn.axisgrid.JointGrid at 0x7fe8d1dc4f70>



```
In [77]: sns.pairplot(df, hue = 'Event')
```

Out[77]: <seaborn.axisgrid.PairGrid at 0x7fe8a62c9430>



```
In [79]: df.corr()
```

Out[79]:

	Duration	Magnitude	AvgTemp	AvgRH
Duration	1.000000	0.338789	0.079838	-0.015081
Magnitude	0.338789	1.000000	-0.337384	0.325809
AvgTemp	0.079838	-0.337384	1.000000	-0.861735
AvgRH	-0.015081	0.325809	-0.861735	1.000000

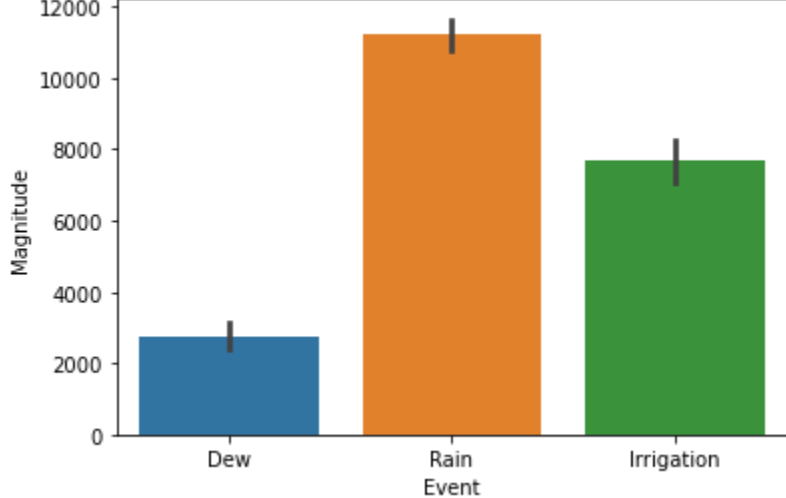
```
In [80]: sns.heatmap(df.corr())
```

Out[80]: <AxesSubplot:>



```
In [22]: sns.barplot(x = 'Event', y = 'Magnitude', data = df)
```

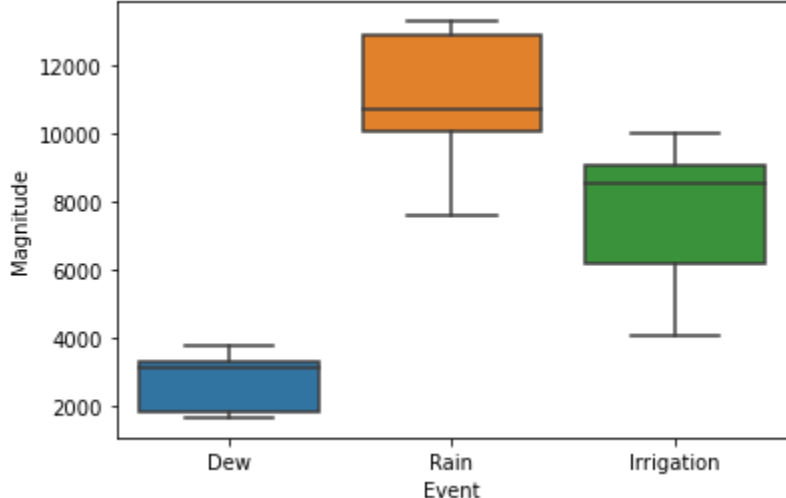
Out[22]: <AxesSubplot:xlabel='Event', ylabel='Magnitude'>



```
In [89]: sns.boxplot('Event', 'Magnitude', data = df)

/Users/onkarmahapatra/opt/anaconda3/lib/python3.9/site-packages/seaborn/_decorators.py:36: FutureWarning: Pass the following variables as keyword args: x, y. From vers
on 0.12, the only valid positional argument will be 'data', and passing other arguments without an explicit keyword will result in an error or misinterpretation.
warnings.warn(
```

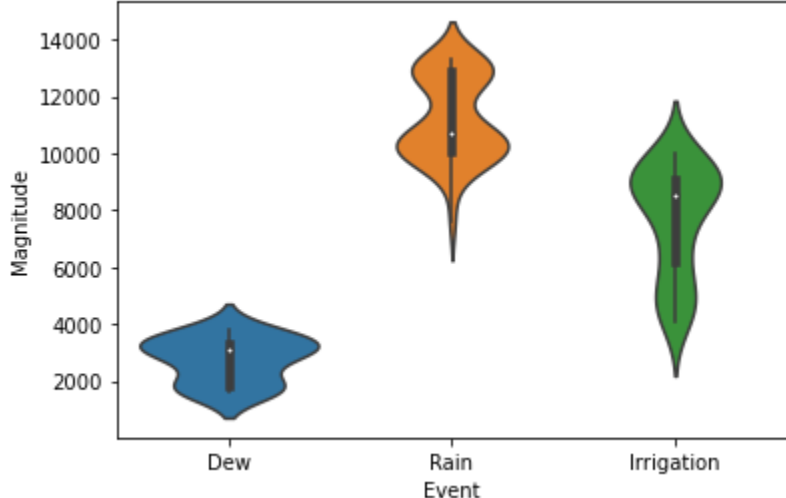
Out[89]: <AxesSubplot:xlabel='Event', ylabel='Magnitude'>



```
In [84]: sns.violinplot('Event', 'Magnitude', data = df)

/Users/onkarmahapatra/opt/anaconda3/lib/python3.9/site-packages/seaborn/_decorators.py:36: FutureWarning: Pass the following variables as keyword args: x, y. From vers
on 0.12, the only valid positional argument will be 'data', and passing other arguments without an explicit keyword will result in an error or misinterpretation.
warnings.warn(
```

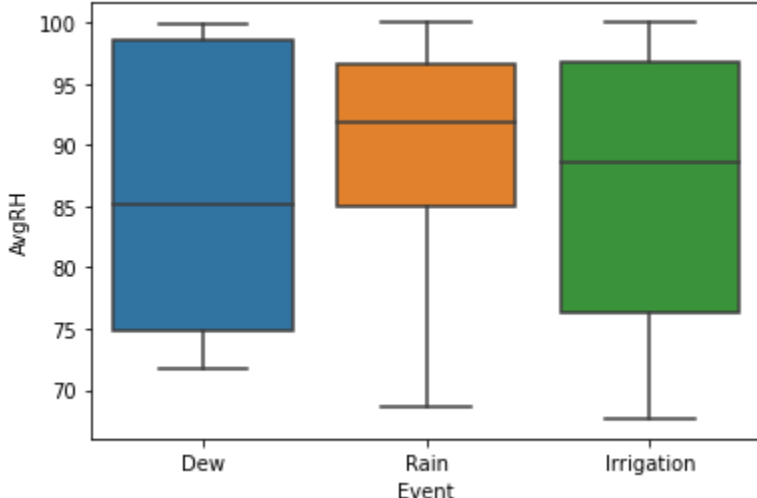
Out[84]: <AxesSubplot:xlabel='Event', ylabel='Magnitude'>



```
In [86]: sns.boxplot('Event', 'AvgRH', data = df)

/Users/onkarmahapatra/opt/anaconda3/lib/python3.9/site-packages/seaborn/_decorators.py:36: FutureWarning: Pass the following variables as keyword args: x, y. From vers
on 0.12, the only valid positional argument will be 'data', and passing other arguments without an explicit keyword will result in an error or misinterpretation.
warnings.warn(
```

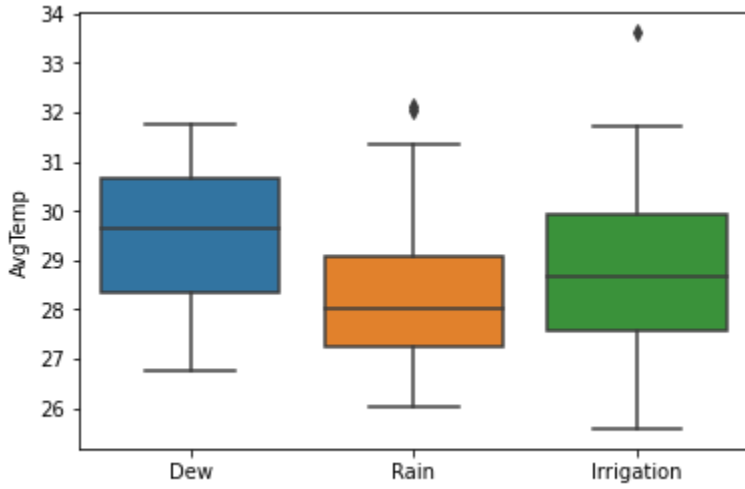
Out[86]: <AxesSubplot:xlabel='Event', ylabel='AvgRH'>



```
In [88]: sns.boxplot('Event', 'AvgTemp', data = df)

/Users/onkarmahapatra/opt/anaconda3/lib/python3.9/site-packages/seaborn/_decorators.py:36: FutureWarning: Pass the following variables as keyword args: x, y. From vers
on 0.12, the only valid positional argument will be 'data', and passing other arguments without an explicit keyword will result in an error or misinterpretation.
warnings.warn(
```

Out[88]: <AxesSubplot:xlabel='Event', ylabel='AvgTemp'>



```
In [ ]:
```