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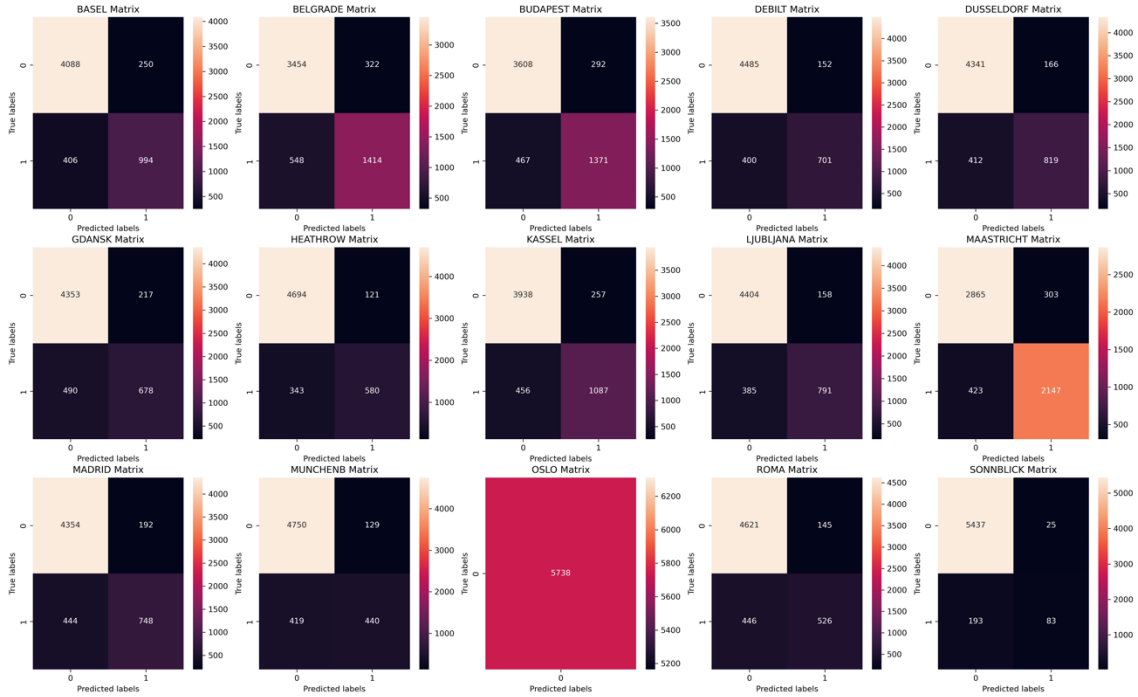
Exercise 1.4



Weather Station	Accurate Prediction		False Positive	False Negative	Accuracy Rate
Basel	4068	994	250	406	71.13%
Belgrade	3454	1414	322	548	60.18%
Budapest	3608	1371	292	467	62.87%
Deblit	4485	701	152	400	78.17%
Dusseldorf	4341	819	166	412	75.65%
Gdansk	4353	678	217	490	75.85%
Heathrow	4694	580	121	343	81.81%
Kassel	3938	1087	257	456	68.61%
Ljubljana	4404	791	158	385	76.76%
Maastricht	2865	2147	303	423	49.95%
Madrid	4354	748	192	444	75.85%
Munchenb	4750	440	129	419	82.80%
Oslo	5738	0	0	0	100%
Roma	4621	526	145	446	80.53%
Sonnblick	5437	83	25	193	94.75%

1. How well does the algorithm predict the current data?
   From the results, we can see that the algorithm shows mixed predictive accuracy across the weather stations. This means the model is mostly successful but has room for improvement.

2. Are any weather stations fully accurate?
   Oslo shows a 100% accuracy rate. This could also be a sign of overfitting because achieving full accuracy on historical data may not necessarily guarantee perfect accuracy on new data.

3. Is there any overfitting happening?
   Oslo being 100% accurate could suggest overfitting. Also, Sonnblick 94.75% could suggest overfitting because it is almost close to perfect. Other stations do not show much signs of overfitting.

4. Are there certain dataset features that might contribute to the overall accuracy or inaccuracy?
   Yes, they are.
   - Geographical location — Different weather stations may show distinct weather patterns due to geographical location. The weather also may have lex complex patterns in comparison to Belgrade.
   - Data Quality and Noise — Some stations might have nosier data which means they might consist of more inconsistencies and outliers.