

	id	date	NH4	BSK5	Suspended	O2	NO3	NO2	SO4	P04	CL	year	month
0	1	2000-02-17	0.330	2.77	12.0	12.30	9.50	0.057	154.0	0.454	289.5	2000	2
1	1	2000-05-11	0.044	3.00	51.6	14.61	17.75	0.034	352.0	0.090	1792.0	2000	5
2	1	2000-09-11	0.032	2.10	24.5	9.87	13.80	0.173	416.0	0.200	2509.0	2000	9
3	1	2000-12-13	0.170	2.23	35.6	12.40	17.13	0.099	275.2	0.377	1264.0	2000	12
4	1	2001-03-02	0.000	3.03	48.8	14.69	10.00	0.065	281.6	0.134	1462.0	2001	3

PS C:\Users\nandi\OneDrive\Desktop\water_quality_prediction>

```
id          0
date        0
NH4         0
BSK5        0
Suspended   0
O2          0
NO3         0
NO2         0
SO4         0
P04         0
CL          0
year        0
month       0
```

dtype: int64

PS C:\Users\nandi\OneDrive\Desktop\water_quality_prediction>

```
MultiOutputRegressor(estimator=RandomForestRegressor(random_state=56))
```

PS C:\Users\nandi\OneDrive\Desktop\water_quality_prediction>

Model Performance on the Test Data:

NH4:

MSE: 1.786471560935225

R2: 0.29852866027020897

BSK5:

MSE: 6.983138368969902

R2: 0.14470812916265097

Suspended:

MSE: 92.75421956400498

R2: 0.28637486040248095

O2:

MSE: 18.982362166090574

R2: 0.10316107659891316

NO3:

MSE: 37.87135591975379

R2: 0.4974959841195644

NO2:

MSE: 0.8064928041563434

R2: -0.9892419207223189

SO4:

MSE: 1004.1669742272176

R2: 0.7943805825640429

PO4:


MSE: 0.4301138084385442

R2: -0.09570638605486792

CL:

MSE: 49093.50240408145

R2: 0.6626553300098266

PS C:\Users\nandi\OneDrive\Desktop\water_quality_prediction> 

Model and cols structure are saved!

PS C:\Users\nandi\OneDrive\Desktop\water_quality_prediction>