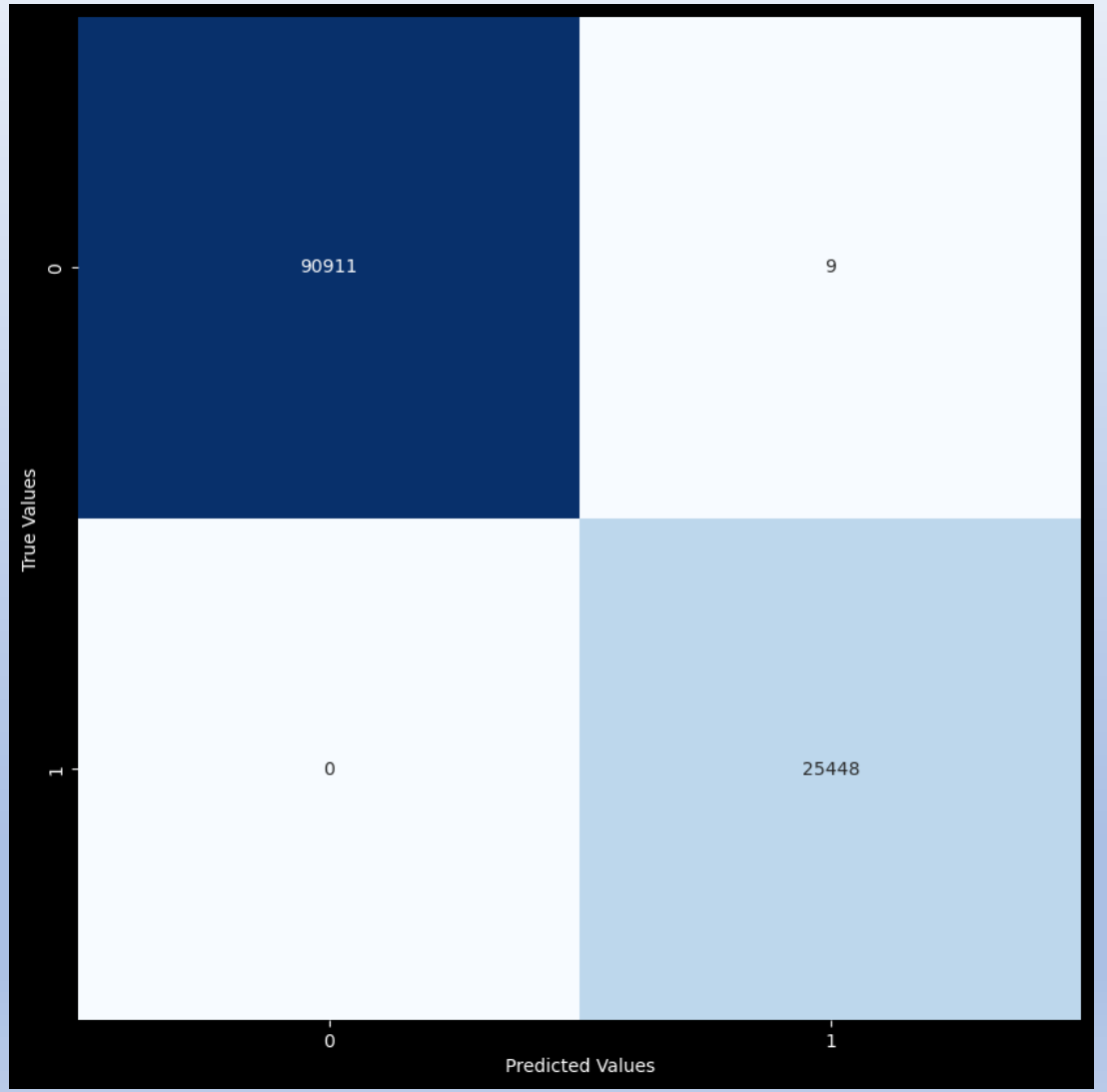
PERFORMANCE TESTING

TEAM ID : PNT2022TMID37532

PROJECT TITLE : EXPLORATORY ANALYSIS OF RAINFALL DATA IN INDIA FOR AGRICULTURE

CONFUSION MATRIX:



CLASSFICATION REPORT:

	precision	recall	f1-score	support
No	1.00	1.00	1.00	90911
Yes	1.00	1.00	1.00	25457
accuracy			1.00	116368
macro avg	1.00	1.00	1.00	116368
weighted avg	1.00	1.00	1.00	116368

HYPERPARAMETER TURNING:

Hyperparameter Tuning

In [47]:
```
grid = {
    "n_estimators": [10, 100, 200, 500, 1000, 1200],
    "max_depth": [None, 5, 10, 20, 30],
    "max_features": ["auto", "sqrt"],
    "min_samples_split": [2, 4, 6],
    "min_samples_leaf": [1, 2, 4],
}

gs_model = GridSearchCV(estimator=model, param_grid=grid, cv=5)

gs_model.fit(X_train, y_train)
```

Out[48]:
```
GridSearchCV(cv=5, estimator=RandomForestClassifier(n_jobs=1),
             param_grid={'max_depth': [30], 'max_features': ['auto', 'sqrt'],
                         'min_samples_leaf': [1, 22],
                         'min_samples_split': [2, 4],
                         'n_estimators': [50, 100, 200]})
```