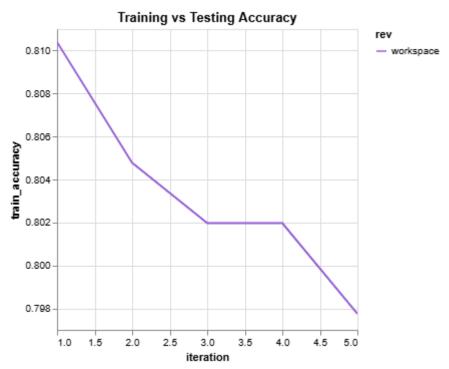
# **Assignment 3**

### Experiment 1 — Logistic Regression (max\_iter=5)

type: LogisticRegression

params: max\_iter: 5

Metric Value
Accuracy 0.81006
F1-Score 0.80251

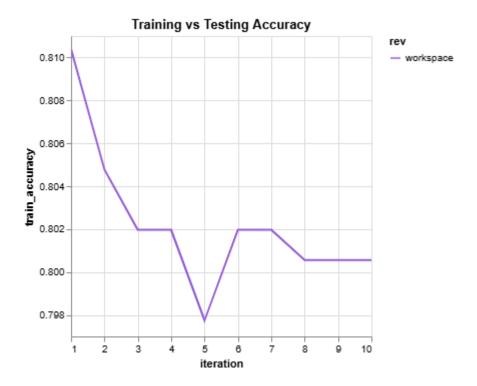


Experiment 2 — Logistic Regression (max\_iter=10)

type: LogisticRegression

params: max\_iter: 10

Metric Value
Accuracy 0.80447
F1-Score 0.79623



DVC Metrics Difference (compared to Experiment 1):

Metric	Previous Current Change
Accuracy	0.81006 0.80447 <b>-0.00559</b>
F1-Score	0.80251 0.79623 -0.00628

## **Random Forest Experiments**

Experiment 3 — RandomForestClassifier (n\_estimators=8, max\_depth=2)

type: RandomForestClassifier

params:

n\_estimators: 8 max\_depth: 2 random\_state: 42

Metric Value
Accuracy 0.78212
F1-Score 0.77184

Experiment 4 — RandomForestClassifier (n\_estimators=16, max\_depth=2)

type: RandomForestClassifier

params:

n\_estimators: 16

max\_depth: 2 random\_state: 42

Metric Value
Accuracy **0.79330**F1-Score **0.78125** 

#### DVC Metrics Difference (compared to Experiment 3):

Metric Previous Current Change
Accuracy 0.78212 0.79330 +0.01117
F1-Score 0.77184 0.78125 +0.00941

## **Final Comparison**

Model Type	Parameters	Accuracy	F1-Score
Logistic Regression	max_iter=5	0.81006	0.80251
Logistic Regression	max_iter=10	0.80447	0.79623
Random Forest	n_estimators=8	0.78212	0.77184
Random Forest	n_estimators=16	0.79330	0.78125