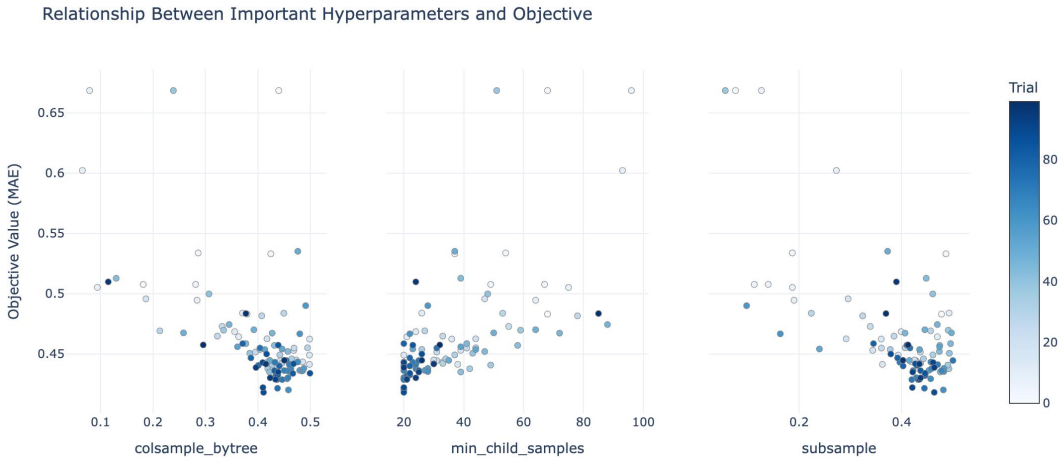
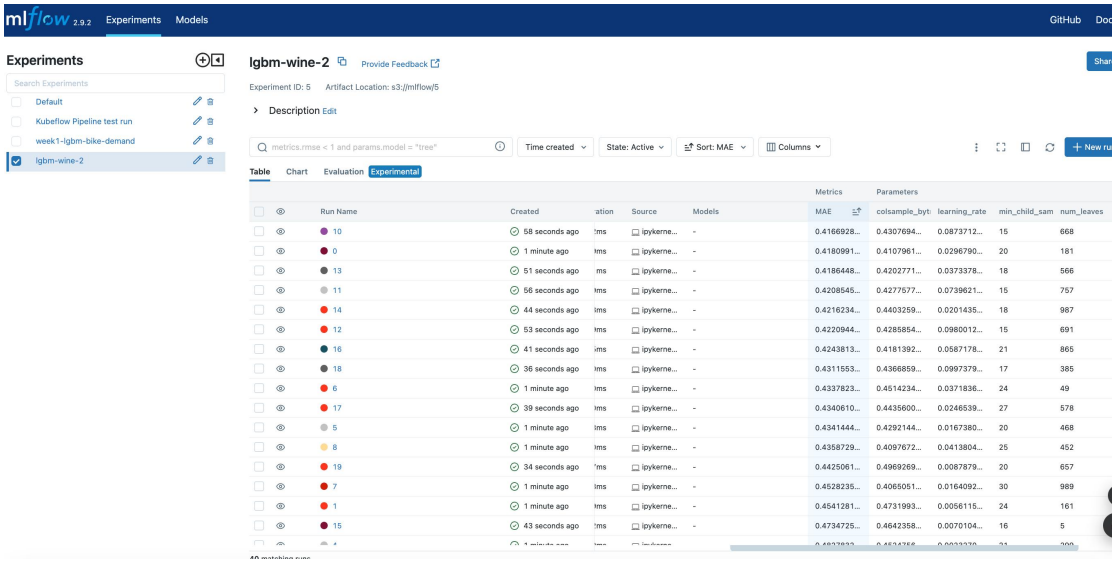
Question for Assignment 2b



As we can see from the picture,
colsample_bytree: points that can have lower MAE value are around 0.4
min_child_samples: points that can have lower MAE value are around 20
subsample: points that can have lower MAE value are around 0.4

further adjustment for next study:
colsample_bytree: [0.4, 0.5]
min_child_samples: [15, 30]
subsample: [0.4, 0.5]
By narrowing the search ranges, the optimizer will focus on areas that are more likely to yield better MAE values.

Screenshot for Assignment 2c



Screenshots for Assignment 3b