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- ▶ Introduction: Machine Learning concepts
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- ▼ **Module 7. Evaluating model performance**

✓ Quiz M7.01

Note: For each question **make sure you select all of the correct options**— there may be more than one! Don't forget to use the sandbox notebook if you need.

Question 1 (1/1 point)

What the benefit of using cross-validation?

☒ a) Give information about performance variability ✓

☐ b) Remove the need to use a baseline algorithm

☒ c) Give information regarding under- or over-fitting of a model



Select all answers that apply

EXPLANATION

solution: a) c)

Cross-validation is a great tool to study results variability. It also allow for checking the difference between the train and test errors. Thus, it helps to understand if a predictive model is underfitting, overfitting, or generalizing.

You have used 1 of 2 submissions

Question 2 (1/1 point)

Does a dummy classifier or regressor rely on the input feature values in the input data ☐ x to make the predictions?

**model with
simple baselines**

Quiz M7 

**Choice of cross-
validation**

Quiz M7 

**Nested cross-
validation**

Quiz M7 


**Classification
metrics**

Quiz M7 

**Regression
metrics**

Quiz M7 

Wrap-up quiz

Wrap-up quiz 

Main take-away

► Conclusion

► Appendix

☒ b) No 

EXPLANATION

solution: b)

In scikit-learn, the dummy estimators base their predictions only on statistics collected on `y_train`, irrespective of the values passed as `X_train` to `dummy.fit(X_train, y_train)` or `X_test` passed to `dummy.predict(X_test)`. It is only required to pass `X_train` to or `X_test` to those methods for the sake of keeping a compatible programming interface (API) with other scikit-learn estimators that do rely on `X_train` and `X_test`.

You have used 1 of 1 submissions

Question 3 (1 point possible)

Does a dummy classifier from scikit-learn always make constant predictions whatever the chosen strategy?

☒ a) Yes 

☐ b) No 

EXPLANATION

solution: b)

It depends on the value of the `strategy` parameter of the `DummyClassifier` class. For instance `DummyClassifier(strategy="stratified")` makes random class predictions probabilities aligned on the empirical frequencies of the classes observed in `y_train`.

You have used 1 of 1 submissions

YOUR EXPERIENCE

According to you, this whole 'Comparing a model with simple baselines' lesson was:

- ☐ **Too easy, I got bored**
- ☐ **Adapted to my skills**
- ☐ **Difficult but I was able to follow**
- ☐ **Too difficult**

Submit

To follow this lesson, I spent:

- ☐ **less than 30 minutes**
- ☐ **30 min to 1 hour**
- ☐ **1 to 2 hours**
- ☐ **2 to 4 hours**
- ☐ **more than 4 hours**
- ☐ **I don't know**

Submit

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