Started on	Thursday, February 15, 2018, 11:34 PM
State	Finished
Completed on	Thursday, February 15, 2018, 11:52 PM
Time taken	17 mins 53 secs
Grade	**56.00** out of 60.00 (**93%**)

Question 1

Complete

4.00 points out of 4.00

Are data scientists required to write specific fit and transform functions when using ML Automator framework?

Select one:

- ○ a. No
- ⦿ b. Yes

Question 2

Complete

4.00 points out of 4.00

What key simplifying assumption is made by the Naive Bayes Algorithm?

Select one:

- ⦿ a. Features are independent given the target class
- ○ b. The data are independent
- ○ c. The features are assumed to follow a normal distribution
- ○ d. Features are independent

Question 3

Complete

4.00 points out of 4.00

What hyperparameters does `GaussianProcessClassifier` estimator accept?

Select one or more:

- ☐ a. priors
- ☑ b. kernel
- ☑ c. optimizer
- ☐ d. classes
- ☐ e. learning_rate

Question 4

Complete

4.00 points out of 4.00

Which distribution should you use with the Naive Bayes Algorithm for continuous features?

Select one:

- ○ a. Poisson
- ○ b. Multinomial
- ○ c. Bernoulli
- ◉ d. Gaussian

Question 5

Complete

4.00 points out of 4.00

Which distribution should you use with the Naive Bayes Algorithm for discrete binary features?

Select one:

- ◉ a. Bernoulli
- ○ b. Multinomial
- ○ c. Poisson
- ○ d. Gaussian

Question 6

Complete

4.00 points out of 4.00

How does Gaussian Process work?

Select one:

- ○ a. It involves a *mean function* and a *covariance function.*
- ◉ b. It constrains a covariance function of the training data features to generate a model representation of the data.
- ○ c. It models data via a finite collection of random variables.
- ○ d. It supports the estimation of a model but not confidence intervals.

Question 7

Complete

4.00 points out of 4.00

The ML Automator requires a user to specify a model config in the notebook. What is the purpose of this model config?

Select one:

- ◉ a. To tell the framework where to locate the training table, how many compute resources to allocate for training, and how scores will be computed.
- ○ b. To lower the cost of model development.
- ○ c. To wrap the transform function as a Python UDF for distributed scoring.
- ○ d. To specify how training will be done exactly.

Question 8

Complete

4.00 points out of 4.00

Fill out the following sentence according to the Airbnb example: "In applications such as insurance or credit screening, a model needs to be _____. In applications such as image classification, it is much more important to have a ____ classifier".

Select one:

○ a. performant; interpretable

◉ b. interpretable; performant

○ c. flexible; interpretable

○ d. interpretable; interpretable

Question 9

Complete

4.00 points out of 4.00

Which library in sklearn contains a class that can create a Gaussian Process Regressor?

Select one:

○ a. sklearn.gaussian_process.GaussianProcessClassifier

○ b. sklearn.gaussianProcess.GaussianProcessRegressor

◉ c. sklearn.gaussian_process.GaussianProcessRegressor

○ d. sklearn.gaussianprocess.GaussianProcessRegressor

Question 10

Complete

4.00 points out of 4.00

Which libraries includes classes and/or functions specially tailored to Gaussian Process Models?

Select one or more:

☐ a. matplotlib

☑ b. scikit–learn

☑ c. GPflow

☑ d. PyMC3

☐ e. math

Question 11

Complete

4.00 points out of 4.00

What is alpha parameter used for in `MultinomialNB` estimator?

Select one:

○ a. It indicates if the prior should be learned from the data.

○ b. It specifies the class prior probabilities

○ c. It provides a threshold to map features into binary vectors

◉ d. It is an additive smoothing parameter that will remove fluctuations in smaller training data sets.

Question 12

Complete

4.00 points out of 4.00

What's the primary hyperparameter for a gaussian process?

Select one:

○ a. random_state

○ b. optimizer

○ c. alpha

◉ d. kernel

Question 13

Complete

0.00 points out of 4.00

At Airbnb, what was built that automagically translates a Jupyter notebook into an Airflow machine learning pipeline?

Select one:

◉ a. ML Infra

○ b. LTV

○ c. UDF

○ d. ML Automator

Question 14

Complete

4.00 points out of 4.00

According to the reading materials, what are two main categories of machine learning algorithms?

Select one or more:

☑ a. Unsupervised learning

☐ b. Instance–based learning

☐ c. Logic learning

☑ d. Supervised learning

Question 15

Complete

4.00 points out of 4.00

What hyperparameters does Binomial naive Bayes estimator in the scikit learn naive_bayes module take?

Select one or more:

☑ a. alpha

☑ b. binarize

☐ c. priors

☑ d. fit_prior