

Module 4 Knowledge Check

Which patterns are common in time series data? (Select TWO.)

☒ Trends

☒ Seasonal

☐ Exponential

☐ Star shape

☐ None of the above

Correct

Trends and seasonal are both patterns you might find in time series data.

Continue



Number correct: 1 out of 1

Which use cases apply to forecasting? (Select TWO.)

☒ Predicting the inventory that's required for items in a warehouse

☐ Predicting the future demand of numerical values

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☐ Determining the future demand of numerical values

Correct

Forecasting use cases involve predicting the future demand of numerical values.

Continue



Number correct: 2 out of 2

Which datasets could be used as a time series dataset? (Select TWO.)

☒ Sales data that contains items, purchase dates, and quantities

☒ Web logs

☐ Chemical

☐ Member

☐ donate

☐ Results

Correct

Datasets with a timestamp element -- or time that can be inferred -- can be used as time series data.

Continue

(PII) and a



Number correct: 3 out of 3

You have a dataset of temperature readings from a weather station. Temperature readings are logged every 5 minutes. You notice that there are several missing values each day. Which approach could you take? (Select TWO.)

☐ Replace

☒ Forward

☒ Backward

☐ Use the

☐ Remove the records that have the missing data

Correct

In this example, using forward fill or backward fill are both methods for filling in the missing data.

Continue

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Number correct: 4 out of 4

Which scenarios are examples of appropriate downsampling?
(Select TWO.)

- ☒ Using mean on minute-by-minute data to determine an hourly value
- ☐ Using sum on hourly values to determine a daily total
- ☒ Using sum on daily totals to determine a weekly total
- ☐ Using sum on hourly values to determine a daily total

Correct

Using mean on minute-by-minute data to determine an hourly value is suitable for temperature data. Using sum to determine the daily total is the best way to downsample.

Continue



Number correct: 5 out of 5

What are examples of seasonality that you might observe in time series data? (Select TWO.)

- ☒ Quarterly, yearly
- ☒ Spring, summer, fall, winter
- ☐ Every two years
- ☐ One time sales events
- ☐ Hourly



Number correct: 5 out of 5

Amazon Forecast generates predictions for P10, P50, and P90. If the forecast predicts shoe sales, what do the P10, P50, and P90 tell you?

- ☒ P10 indicates that 10% of the time the predicted value will be less than the true value.
- ☐ P50 indicates that 50% of the time the predicted value will be less than the true value.
- ☐ P90 indicates that 90% of the time the predicted value will be less than the true value.
- ☐ All of the above.

Correct

P values indicate at what percentage of the time the true value will be less than the predicted value.

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Which datasets are required for generating a retail forecast with Amazon Forecast?

- ☐ Item details
- ☐ Item statistics
- ☐ Item popularity
- ☒ Time series

Correct

A time series dataset is the only dataset that's required to generate a forecast. The others are optional.

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You are going to use a dataset to generate a forecast. Which steps would you take to use the data that's available to produce the best model? (Select THREE.)

- ☐ Use the data to train the model, and then use the testing data to validate the model.
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- ☒ Use the data to train the model, and then use the testing data to validate the model.
- ☐ All of the above.

Correct

Splitting the data by time, using a backtest window, and comparing the tested dataset predictions with actual values are all valid ways to produce a model.

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