



Microsoft: DAT210x Programming with Python for Data Science



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Review Question 1

(1 point possible)

The small credit union / bank you've been working at for the past ten years is having cash-flow issues. Upon further inspection, it turns out that a lot of their clients are defaulting on their loans! In an attempt to rectify the business, you've been assigned the task of studying all client data, and then deriving a method to identify if a prospective borrower is likely to default on their loan or not.

What type of machine learning would you engage to solve this problem?

☐ Dimensionality Reduction☒ Classification ✓☐ Clustering☐ Reinforcement Learning☐ Regression

You have used 1 of 2 submissions

Review Question 2

(1/1 point)

After doing a great job of solving the cash flow issue by denying loans to bad clients, your boss issued out a client satisfaction survey to ensure that those who remained loyal customers were happy with all of the new process changes. Apparently, he was really motivated while creating the survey because he came up with thirty questions. Even more amazingly, almost all the clients responded!

Now your weekend plans are ruined because you have to go through thousands of these surveys to figure out how the clients are feeling about the credit union.

What type of machine learning would you engage to solve this problem?

☒ Dimensionality Reduction ✓

☐ Classification

☐ Clustering

☐ Reinforcement Learning

☐ Regression

EXPLANATION

Again, start by asking yourself what your objectives are, and what you would like to accomplish from this. What question are you trying to solve here using machine learning? Once you have a firm question in mind, you can start examining the various machine learning tools available at your disposal.

You have used 2 of 2 submissions

Review Question 3

(1 point possible)

Which of the following is an example of regression?

- ☐ Categorizing polar bear and grizzly bear footprints
- ☒ Calculating the relationship between a black hole's mass and its Hawking radiation ✓
- ☐ Grouping meals together by similar ingredient
- ☐ Taking a list of people's like / dislike responses to 200 movies and creating a list of 5 movie genres they either like or dislike
- ☐ Learning to walk by minimizing a penalty score metric

You have used 1 of 2 submissions

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