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Started on	Wednesday, 17 June 2020, 2:55 PM
State	Finished
Completed on	Wednesday, 17 June 2020, 3:14 PM
Time taken	19 mins 6 secs
Grade	10.00 out of 10.00 (100%)

Question **1**

Correct

Mark 1.00 out of 1.00

In which of the following cases, we can use Linear Regression Model?

Select one or more:

- ☐ a. We want to predict whether a person has heart disease or not.
- ☐ b. We want to predict whether a candidate will get placed or not.
- ☒ c. We want to predict the price of a house. ✓
- ☒ d. We want to predict the salary of a person based on his experience. ✓
- ☐ e. All of the above.

Your answer is correct.

The correct answers are: We want to predict the price of a house., We want to predict the salary of a person based on his experience.

Question **2**

Correct

Mark 1.00 out of 1.00

Linear Regression is Supervised machine learning algorithm.

Select one:

- ☒ a. True ✓
- ☐ b. False

Your answer is correct.

The correct answer is: True



Question **3**

Correct

Mark 1.00 out of 1.00

If a dataset has one dependent variable and five independent variable, this dataset will be referred as

Select one:

- ☐ a. Simple Linear Regression
- ☒ b. Multiple Linear Regression ✓

Your answer is correct.

The correct answer is: Multiple Linear Regression



Question **4**

Correct

Mark 1.00 out of 1.00

Which parameter of linear regression ($y = mx + b$) tells us how steep is the best fit line.

Select one:

- ☒ a. m ✓
- ☐ b. b

Your answer is correct.

The correct answer is: m



Question **5**

Correct

Mark 1.00 out of 1.00

Please go through this notebook: https://github.com/dphi-official/Linear_Regression_Introduction/blob/master/Linear_Regression.ipynb. Further questions (Question 6 to Question 9) are based on this notebook and dataset used here. Be ready by loading the dataset used in this notebook and execute the codes already present here.

Instruction for question 6 and question 7:

The author has used random state as 47, change it to 1 and answer the following questions.

What do you observe about y - intercept and slope/coefficient using random state 47 (say case 1) and random state 1 (say case 2)?

Select one:

- ☐ a. In both the cases only y - intercepts are different.
- ☐ b. In both the cases only slope/coefficients are different.
- ☒ c. In both the cases, both the y - intercepts and the slope/coefficients are different. ✓

Your answer is correct.

The correct answer is: In both the cases, both the y - intercepts and the slope/coefficients are different.



Question 6

Correct

Mark 1.00 out of 1.00

Please go through this notebook: https://github.com/dphi-official/Linear_Regression_Introduction/blob/master/Linear_Regression.ipynb. Further questions (Question 6 to Question 9) are based on this notebook and dataset used here. Be ready by loading the dataset used in this notebook and execute the codes already present here.

Instruction for question 6 and question 7:

The author has used random state as 47, change it to 1 and answer the following questions.

What do you observe about MAE, MSE and RMSE?

Select one or more:

- ☒ a. The value of MAE is different in both the cases ✓
- ☒ b. The value of MSE is different in both the cases ✓
- ☒ c. The value of RMSE is different in both the cases ✓
- ☐ d. None of the above.

Your answer is correct.

The correct answers are: The value of MAE is different in both the cases, The value of MSE is different in both the cases, The value of RMSE is different in both the cases



Question 7

Correct

Mark 1.00 out of 1.00

Please go through this notebook: https://github.com/dphi-official/Linear_Regression_Introduction/blob/master/Linear_Regression.ipynb. Further questions (Question 6 to Question 9) are based on this notebook and dataset used here. Be ready by loading the dataset used in this notebook and execute the codes already present here.

Instruction for question 8 and question 9:

The author has used test size as 0.3, change it to 0.1 and keep the random state as 47 only. Answer the following questions

What do you observe about y - intercept and slope/coefficient with test size 0.3 (say case 1) and test size 0.1 (say case 2) while keeping the random state as 47 in both the cases?

Select one:

- ☐ a. In both the cases only y - intercepts are different.
- ☐ b. In both the cases only slope/coefficients are different.
- ☒ c. In both the cases, both the y - intercepts and the slope/coefficients are different. ✓
- ☐ d. In both the cases, both parameters are same.

Your answer is correct.

The correct answer is: In both the cases, both the y - intercepts and the slope/coefficients are different.



Question 8

Correct

Mark 1.00 out of 1.00

Please go through this notebook: https://github.com/dphi-official/Linear_Regression_Introduction/blob/master/Linear_Regression.ipynb. Further questions (Question 6 to Question 9) are based on this notebook and dataset used here. Be ready by loading the dataset used in this notebook and execute the codes already present here.

Instruction for question 8 and question 9:

The author has used test size as 0.3, change it to 0.1 and keep the random state as 47 only. Answer the following questions

What do you observe about MAE, MSE and RMSE?

Select one or more:

- ☒ a. The value of MAE is different in both the cases ✓
- ☒ b. The value of MSE is different in both the cases ✓
- ☒ c. The value of RMSE is different in both the cases ✓
- ☐ d. The RMSE is same in both the cases while MAE are different.

Your answer is correct.

The correct answers are: The value of MAE is different in both the cases, The value of MSE is different in both the cases, The value of RMSE is different in both the cases



Question 9

Correct

Mark 1.00 out of 1.00

Which of the following statement is true?

Select one or more:

- ☐ a. Input variables are also known as dependent variables.
- ☒ b. Input variables are also known as independent variables. ✓
- ☐ c. Output / Target variables are also known as independent variables.
- ☒ d. Output / Target variables are also known as dependent variables. ✓
- ☒ e. Predictors are nothing but input variables. ✓

Your answer is correct.

The correct answers are: Input variables are also known as independent variables., Output / Target variables are also known as dependent variables., Predictors are nothing but input variables.



Question **10**

Correct

Mark 1.00 out of 1.00

Which of the following is true about the cost while building the model?

Select one:

- ☒ a. Cost should be as minimum as possible ✓
- ☐ b. Cost should be as maximum as possible.
- ☐ c. It doesn't matter if the cost is maximum or minimum.

Your answer is correct.

The correct answer is: Cost should be as minimum as possible



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