

# Exam Preparation & Samples

18, May 2020

# 2 Types of Options

Pick one out of two.

- 1) Coding + Logical questions
- 2) Theoretical Exam based on concepts

# Coding

We provide you a dataset in a specific business setting and a problem that the business organization is facing. You will be asked to help this company in solving the problem.

Example: Customer dataset from the company ABC, which would like to predict customer churn. You can help the ABC company by creating a customer churn model.

So you will be asked to write code and execute it and report some metric values.

What is the accuracy of your model ?

We will ask you some logical questions based on your model's outcome. For example, if your model is an overfitting model?

# Exam Format for Coding

## Machine help is allowed:

- 1) Full access..
- 2) You can watch movies
- 3) YouTube
- 4) Colab
- 5) Stackoverflow

## **BUT**

1. **No human help in any form is allowed (Chatting with classmates, Mark Zuckerberg, or parents or partners etc.)**
2. **No chatting softwares like Skype, Whatsapp, Messenger should be open during the exam**

# Theoretical Exam based on concepts

## Possible Types of Questions

- 1) Multiple choice
- 2) Fill in the blanks
- 3) Calculations related questions:
- 4) Inferring the results: Answers the questions based on the data/Information.

**Please note:** There is no guarantee if you will get all kind of questions or may be specific type. It will be all random.

# Please note

- Some questions might have negative marking (multiple options)
- For example, in a multiple choice question, if the total marks are 2 and out of 4 given statements only two are correct and you checked 3 (2 correct and 1 incorrect), then you will get only 1 marks
- In the worst case, you will get 0 marks for a multiple choice questions and cannot impact other questions.

# Question 1: Multiple choice questions

(1 point) Select the correct options.

Supervised learning differs from unsupervised learning in that supervised learning requires

1. At least one input feature.
2. Input features to be categorical.
3. At least one output feature.
4. Output features to be categorical.

## Question 2: Calculation based

- (3 points) Consider the following confusion matrix below:

	Positive	Negative	Total
Positive	50	30	80
Negative	25	15	40
total	75	45	120

- Calculate Precision and Recall based on these numbers.

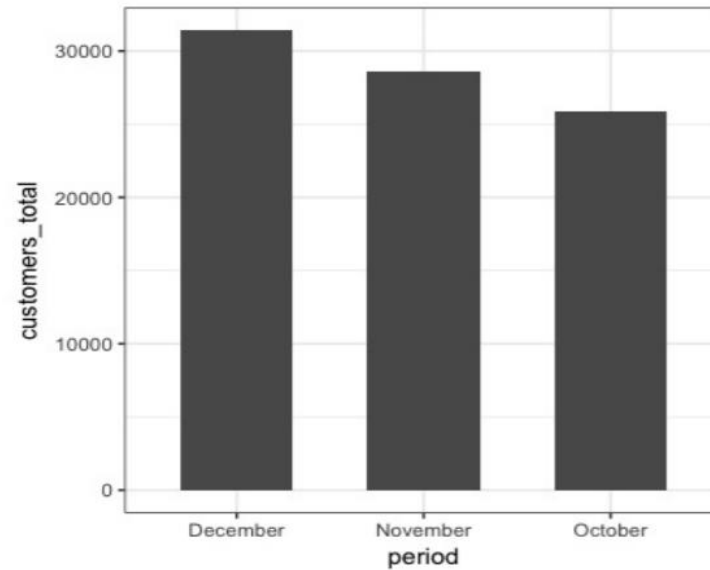


## Question 3: Fill in the Blanks

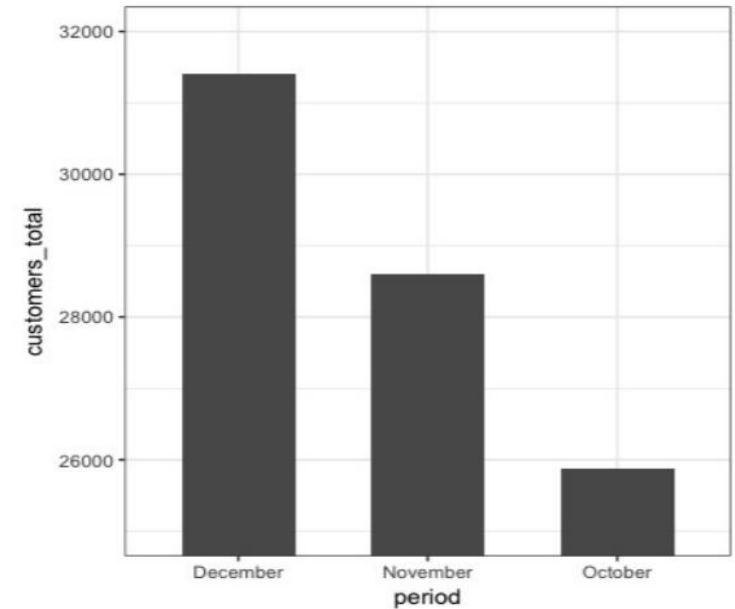
- (1 point) RFM analysis ranks customers by considering ..... of their orders.

# Question 4: Interpreting plot

The Megamegacorp is (a fictitious company) big corporation, which sells appliances. An intern at Megamegacorp provided you with two figures (see the attached Figure) and asked your help. Which of the plots shows the sales better and why?



(a)



(b)

# Exam Format for Theoretical Exam

## Allowed:

Only 2 A4 Size Cheat sheets allowed in PDF form but no Zooming more than 100%

## Not Allowed:

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