

Quiz 1

Instructions:

Please answer the questions point to point in the space provided.

There are 4 sections follow the instructions and Answer the questions carefully

Section 1: Descriptive type Questions

Q1. What is data Science?

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Q2. List out the various Roles in Data Science & Also which one you like the most & why?

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Q3. List out the various Machine Learning Techniques.

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Q4. List out the Data Types in R

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Q5. List out the type of Data we have learnt & describe the same in one line.

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Section 2: MCQ's

Q 1. Which of the following statements uses a machine learning model?

- A. Determine whether an incoming email is spam or not.
- B. Obtain the name of last year's Giro d'Italia champion.
- C. Automatically tagging your new Facebook photos.
- D. Select the student with the highest grade on a statistics course.

Q 2. Not sure whether you got the difference between basic data manipulation and machine learning? Have a look at the statements below and identify the one which is not a machine learning problem.

- A. Given a viewer's shopping habits, recommend a product to purchase the next time she visits your website.
- B. Given the symptoms of a patient, identify her illness.
- C. Predict the USD/EUR exchange rate for February 2016.
- D. Compute the mean wage of 10 employees for your company.

Q 3. From the following list, select the supervised learning problems:

- 1. Identify a face on a list of Facebook photos. You can train your system on tagged Facebook pictures.
- 2. Given some features, predict whether a fruit has gone bad or not. Several supermarkets provided you with their previous observations and results.
- 3. Group college students into three groups. Students within the same group should be similar, while those in different groups must be dissimilar.

Q4. Bob owns a software firm and the data generated by his firm is increasing day by day and it is reaching more than 100 Giga Bytes per month. Which technology he should be looking for in order to scale the organization further to accommodate the data easily

- A. Add more SQL Servers to the production environment
- B. Use data lake to store the data
- C. Use Big Data technology such as Hadoop, Mapreduce, YARN etc.,.

Q5. Check if this code is valid

```
M = matrix(c(2,4,5,6,7,8,9,1), nrow=3, ncol=3)
```

- A. It will through an exception
- B. The code will run successfully
- C. None of the above

Section 3: Match the following

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|------------------------------------------------------------------------------------|---------------------------|
| 1. When outcome is provided to Machine while training | Stores similar data types |
| 2. Organizational Data which has increased more than Terra Bytes | Data Analyst |
| 3. Vectors in R | Artificial Intelligence |
| 4. One who's job is to understand data with domain knowledge and do visualizations | Supervised Learning |
| 5. Technique which makes or trains computers to behave like humans | It's a Big Data Challenge |

Section 4: Coding.

Q1. Write a code snippet to generate a numerical vector with at least 15 random elements in it

- Access 5th element form the Vector
- Delete 9th element from the vector
- Update 1st element of the vector

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Q2. Write a script in order to store following data types

- Numerical data type
- Character data type
- Logical data type
- Complex data type

Q3. Write a script in order to do matrix operations

- Create a matrix with 5X5 dimension
- Access the diagonal elements
- Access the 4th row
- Access the lower triangle elements without diagonal elements

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