Solution Student Handbook - Chapter 1

Objective Type Questions

Please choose the correct option in the questions below:

1. Discrete data can take any value in a range.
a.True   **b.False**

2. Continuous data cannot take decimal values.
a.True   **b.False**

3. Information stored in a PDF is not considered data.
a.True   **b.False**

4. Quantitative data cannot take numerical values.
a.True   **b.False**

5.Qualitative data is description in nature.
a.True   b.False

6."How is the weather like"? is what kind of data
a.Quantitative   **b.Qualitative**

7.Which of the following is considered data?
a. Speech
b. Video
c. Messages
d. All of the above

8.How is data used in the entertainment industry?
a. Predicting interests
b. Targeting ads
c. Both of the above

9.Number of days in a week is an example of?
a. Discrete Data
b. Continuous Data

10.What are the types of quantitative data?
a. Discrete
b. Continuous
c. Both a and

Standard Questions

Please answer the questions before in no less than 100 words.
1. Explain what data is, with the help of two real -life examples.
The data is a term that is referred to the computers information. Such type of information is generally stored or transferred by the user. Always data is present in an form which can be in number, text, video, pictures, audio etc.

2. How is the data categorized?
The data is categorized in two types those are:
1. **Qualitative Data**: It is the data where the data is a descriptive piece of information. For ex: "What a pleasant day it is."

2. **Quantitative Data**: It is the data which contains the numerical form of information. For ex: "2", "5.55", "420" etc. Quantitative Data is been divided into two forms of data i.e. is Discrete Data and Continuous Data.

3.What is Discrete Data?
Discrete data is expressed in the term of the value which is specific. Such type of data can be also counted.
The examples of such type of data are:
        (a) Number of months in a year.
        (b) Number of family members in a family.
        (c) Number of days in a week.

4.What is Continuous Data?
In this type of data, from an interval any value is taken. Hence such type of data is measurable.
The examples of continuous data are:
      (a) What is the amount of oxygen found in the atmosphere.
      (b) What are the ages of the members in the family.

5.Give two examples of real-life applications of data.
Entertainment and Education are the two examples of real-life applications of data.

High Order Thinking Skills

Please answer the questions below in no less than 200 words:
1.How is data used by online streaming platforms?

Further with the help of Real-World examples of data, well get an idea about how the data is used by online streaming platforms. Many of us likes to watch videos on the internet. You might have also observed that when you are watching any video, before its completion you notice the suggested videos is been shown on the platform. Have you noticed that whatever videos you are getting on the screen in the form of suggested videos are related with content of currently watching videos or the content you like?

Now you must be having question in your mind that how come such type of online streaming platforms knows your choices. It is just only because of the data and its analysis. Such type of online streaming platforms includes many videos in their content. Such platforms analysis the videos which people usually play post watching a video. These platforms store and studies the preferences of the people's choice related to the videos and contents. Later on, algorithm is created at the background which creates a people's preferences and shows the same content in the suggested videos that maximum number of the people have watched which the current clip.

2.Give five examples of discreate data around you?
The examples of discrete data around me are as followed:
      (a) Number of students in the class.
      (b) Number of books in a library.
      (c) Number of flowers in a garden.
      (d) Number of cars in a showroom.
      (e) Number of mangoes in a basket.

Applied Project

Data analytics has many applications in our life. Discuss how data analytics is applied in the airline industry to predict flight delays. Few factors which influence flight delays

- Weather condition (Extreme weather)
- Route restriction? Air traffic
- Mechanical delays
- Availability of runways

Using these factors discuss with your class mates how data analytics can help predict flight delays.