**Attribute Type (1 of 2)**

Answer the questions for the following variables in the given table (Table 3.9, MSD by Myatt).

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Age | Gender | Blood group | Weight (kg) | Height (m) | Systolic blood pressure | Diastolic blood pressure | Temperature (Fahrenheit) | Diabetes |
| P.Lee | 35 | Female | A Rh+ | 50 | 1.52 | 68 | 112 | 98.7 | 0 |
| R.Jones | 52 | Male | O Rh- | 115 | 1.77 | 110 | 154 | 98.5 | 1 |
| J.Smith | 45 | Male | O Rh+ | 96 | 1.83 | 88 | 136 | 98.8 | 0 |
| A.Patel | 70 | Female | O Rh- | 41 | 1.55 | 76 | 125 | 98.6 | 0 |
| M.Owen | 24 | Male | A Rh- | 79 | 1.82 | 65 | 105 | 98.7 | 0 |
| S.Green | 43 | Male | O Rh- | 109 | 1.89 | 114 | 159 | 98.9 | 1 |
| N.Cook | 68 | Male | A Rh+ | 73 | 1.76 | 108 | 136 | 99.0 | 0 |
| W.Hands | 77 | Female | O Rh- | 104 | 1.71 | 107 | 145 | 98.3 | 1 |
| P.Rice | 45 | Female | O Rh+ | 64 | 1.74 | 101 | 132 | 98.6 | 0 |
| F.Marsh | 28 | Male | O Rh+ | 136 | 1.78 | 121 | 165 | 98.7 | 1 |

Assign them to one of the following categories: constant, dichotomous, binary, discrete, and continuous.

|  |  |
| --- | --- |
|  | Categories |
| 1. Name | constant, dichotomous, binary, discrete, continuous |
| 1. Age | constant, dichotomous, binary, discrete, continuous |
| 1. Gender | constant, dichotomous, binary, discrete, continuous |
| 1. Blood group | constant, dichotomous, binary, discrete, continuous |
| 1. Weight (kg) | constant, dichotomous, binary, discrete, continuous |
| 1. Height (m) | constant, dichotomous, binary, discrete, continuous |
| 1. Systolic blood pressure | constant, dichotomous, binary, discrete, continuous |
| 1. Diastolic blood pressure | constant, dichotomous, binary, discrete, continuous |
| 1. Temperature | constant, dichotomous, binary, discrete, continuous |
| 1. Diabetes | constant, dichotomous, binary, discrete, continuous |

Assign them to one of the following scales: nominal, ordinal, interval, and ratio.

|  |  |
| --- | --- |
|  | Scales |
| 1. Name | nominal, ordinal, interval, ratio |
| 1. Age | nominal, ordinal, interval, ratio |
| 1. Gender | nominal, ordinal, interval, ratio |
| 1. Blood group | nominal, ordinal, interval, ratio |
| 1. Weight (kg) | nominal, ordinal, interval, ratio |
| 1. Height (m) | nominal, ordinal, interval, ratio |
| 1. Systolic blood pressure | nominal, ordinal, interval, ratio |
| 1. Diastolic blood pressure | nominal, ordinal, interval, ratio |
| 1. Temperature | nominal, ordinal, interval, ratio |
| 1. Diabetes | nominal, ordinal, interval, ratio |

**Attribute Type (2 of 2)**

**(Hint) Watch the videos of “**[**Statistical Aspects of Data Mining (Stats 202)**](http://www.stats202.com/original_index.html)[**Day 2**](https://www.youtube.com/watch?v=YFC2KUmEebc) **and** [**Day3**](https://www.youtube.com/watch?v=1HAAF4UT75o&list=PLA4B3B4CB6949A800&index=3)**”.**

Classify the following attributes as binary, discrete, or continuous. Also classify them as qualitative (i.e., nominal or ordinal) or quantitative (i.e., interval or ratio). Some cases may have more than one interpretation, so briefly indicate your reasoning if you think there may be some ambiguity.

1. Number of telephones in your house

Discrete, quantitative(interval)

1. Size of French fries (medium or large or x-large)

Discrete, qualitative(ordinal)

1. Ownership of a cell phone

Binary qualitative(ordinal): you either own it(1/true) or you don’t (0/false)

1. Number of local phone calls you made in a month

Discrete, quantitative(interval)

1. Length of longest phone call

Continuous, quantitative(ratio): it’s a ratio because if the length of the call is zero then it never happened, so there is a natural relationship with zero

1. Length of your foot

Continuous, quantitative(interval)

1. Price of your textbook

Continuous, quantitative(ratio)

1. Zip code

Discrete, quantitative(interval)

1. Temperature in degrees Fahrenheit

Continuous, quantitative(interval)

1. Temperature in degrees Celsius

Continuous, quantitative(interval)

1. Temperature in Kelvins

Continuous, quantitative(ratio): kelvin temperature is a ratio as it has a relationship with zero