This Homework assignment addresses data types and classifications.

Please read all directions carefully. **Please present all typewritten answers in a font color that is not black.**

Use the variables found in data set that was created for HW #1 – SPSS.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Subject** | **Sex** | **Age**  **(Years)** | **Weight**  **(KG)** | **Height**  **(M)** | **Smoking**  **Status** | **Well-Being** | **BMI**  **(kg/m2)** |
| 1 | 2 | 49 | 95.3 | 1.8 | 1 | 1 |  |
| 2 | 1 | 56 | 76.4 | 1.54 | 1 | 5 |  |
| 3 | 1 | 76 | 63.6 | 1.44 | 1 | 4 |  |
| 4 | 1 | 45 | 71.2 | 1.65 | 2 | 2 |  |
| 5 | 2 | 76 | 98 | 1.79 | 2 | 4 |  |
| 6 | 2 | 81 | 97 | 1.75 | 1 | 4 |  |
| 7 | 2 | 34 | 75.4 | 1.96 | 2 | 3 |  |
| 8 | 1 | 46 | 76.5 | 1.56 | 2 | 5 |  |
| 9 | 2 | 51 | 81.2 | 1.75 | 2 | 4 |  |
| 10 | 1 | 58 | 54 | 1.47 | 2 | 3 |  |
| 11 | 2 | 64 | 80.2 | 1.81 | 2 | 1 |  |
| 12 | 1 | 32 | 65.4 | 1.54 | 2 | 4 |  |
| 13 | 1 | 24 | 98.1 | 1.49 | 1 | 5 |  |
| 14 | 2 | 29 | 99.4 | 1.78 | 1 | 3 |  |
| 15 | 2 | 34 | 84.3 | 1.85 | 2 | 3 |  |
| 16 | 2 | 43 | 90.4 | 1.87 | 2 | 4 |  |
| 17 | 1 | 50 | 70.3 | 1.61 | 2 | 5 |  |
| 18 | 1 | 53 | 87.6 | 1.64 | 1 | 5 |  |
| 19 | 1 | 64 | 95.6 | 1.59 | 1 | 5 |  |
| 20 | 2 | 24 | 78.4 | 1.81 | 2 | 4 |  |

**Question Set 1:** Identify the Data Type (**nominal, ordinal, interval, ratio**), Classification (**continuous, categorical, discrete**) for each of the following recorded variables in this data set: Enter your answers in the table below.

|  |  |  |
| --- | --- | --- |
| Variable | Type | Classification |
| Subject |  |  |
| Sex |  |  |
| Age |  |  |
| Weight |  |  |
| Height |  |  |
| Smoking Status |  |  |
| Well-Being |  |  |
| BMI |  |  |

**Question Set 2:** Time can be a very confusing variable. Time actually is a variable that can qualify for all data types and classifications – depending on the context in which it is used.

Explain a condition - not the example presented in lecture - for the variable time, for each of the following classifications:

1. Time as a Categorical variable
2. Time as an Discrete variable
3. Time as a Continuous variable

**Question Set 3:** Scenarios put research variables into context.

Consider each of the following scenarios and for each scenario, identify variable type, classification and independent and dependent variables.

Scenario 1:

Researchers want to know the effect of a new drug on the level of mean arterial pressure. The researchers measured mean arterial pressure prior to beginning an experimental course of the new medication and at one week after beginning the drug and 3 weeks after beginning the drug.

Identify:

The Independent Variable\_\_\_\_\_\_\_\_\_\_\_

The Dependent Variable \_\_\_\_\_\_\_\_\_\_\_\_

Considering the Independent Variable:

Identify the Data Type \_\_\_\_\_\_\_\_\_\_\_

Identify the Data Classification \_\_\_\_\_\_\_\_\_\_\_\_

Considering the Dependent Variable:

Identify the Data Type \_\_\_\_\_\_\_\_\_\_\_

Identify the Data Classification \_\_\_\_\_\_\_\_\_\_\_\_

Scenario 2:

A very concerned hospital administrator noticed that many clinicians were leaving employment at the hospital. Knowing that nationally, many clinicians have left practice, and knowing that it is projected that many more intend to leave practice, the administrator wanted to discover why the hospital was experience similar losses. The administrator sent a survey to all clinicians. The survey included many questions. However, of note was the question: How likely are you to leave practice in the next year? The responses were Highly likely, Somewhat likely, Neither likely nor unlikely, Somewhat unlikely and Very unlikely and were coded with sequential whole numbers so that a computer could be used to assess data. Additionally, the administrator was interested in knowing likeliness of leaving based on the clinicians’ specialty of practice.

Identify:

The Independent Variable\_\_\_\_\_\_\_\_\_\_\_

The Dependent Variable \_\_\_\_\_\_\_\_\_\_\_\_

Considering the Independent Variable:

Identify the Data Type \_\_\_\_\_\_\_\_\_\_\_

Identify the Data Classification \_\_\_\_\_\_\_\_\_\_\_\_

Considering the Dependent Variable:

Identify the Data Type \_\_\_\_\_\_\_\_\_\_\_

Identify the Data Classification \_\_\_\_\_\_\_\_\_\_\_\_