

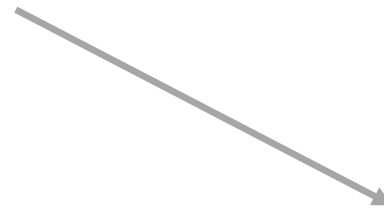
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called **values**



| <b>breed</b>  | <b>weight</b> | <b>height</b> |
|---------------|---------------|---------------|
| Shih-Tzu      | 5.5           | 24            |
| Labrador      | 33            | 56            |
| Beagle        | 10.2          | 34            |
| Newfoundland  | 70            | 69            |
| Chihuahua     | 1.3           | 20            |
| Affenpinscher | 9.6           | 27            |

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**Rows  $\Rightarrow$  Observations**

each row represents one  
observation

| breed         | weight | height |
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## Columns $\Rightarrow$ Features

each feature has name and a data type

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## Rows $\Rightarrow$ Observations

each row represents one observation

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|---------------|--------|--------|
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Each feature (column) in the tabular data model has a **data type** associated with it. This is not always explicit in way the dataset is saved, but will be defined when we are working with it in R.




The two most common data types we will see are:

- **numeric:** everything can be represented by a number
- **character:** arbitrary sequences of any characters

There is a single type for each feature; we cannot mix and match data types. We will see other data types as they arise in our work.

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Implied data types in our example:

| <b>character</b><br><b>&lt;chr&gt;</b>  | <b>numeric</b><br><b>&lt;dbl&gt;</b>  | <b>numeric</b><br><b>&lt;int&gt;</b>  |
|---|---|---|
|  |  |  |
| <b>breed</b>  | <b>weight</b>   | <b>height</b>   |
| Shih-Tzu  | 5.5   | 24  |
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