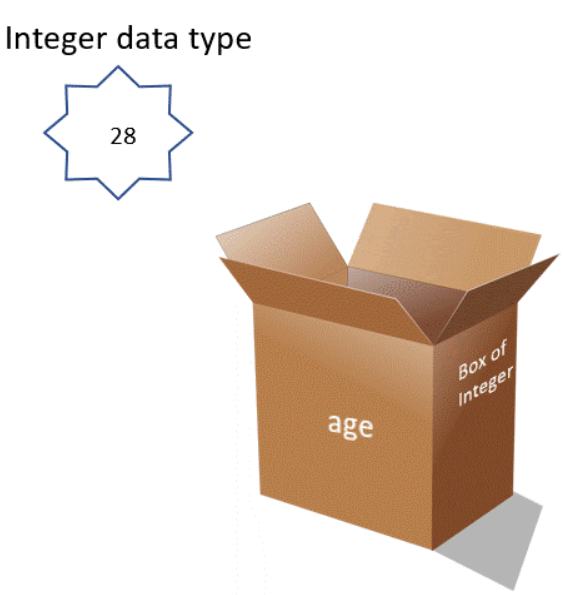
# What are the variables types ?

| Type | Utility | Example |
| --- | --- | --- |
| Boolean | Represents a binary state, true or false. | true , false |
| Integer | Represents number that can be written without a fractional component. | 26 , 305 , 7 , 4018 |
| Float | Represents number that can be written with a fractional component. | 12.14 , 25.0 , 3.1415 , 6 |
| Char | Represents a unique character. | ‘c’ , ‘A’ , ‘$’ |
| String | Represents a series of characters (text). | “content of the channel” |

# Compatibility of types

When you assign a value to a variable, the two types must be compatible with each other. For example, you cannot assign an string value to an integer variable.




## Compatibility of types in operations

By now, we have learned what's are variables and the basics types that exist. As we have seen in the previous slide we cannot assign a value with type float to a variable with type string, this rule still true between variable themselves.

Only the exception of assigning an integer variable to a float variable.

As shown in the code below, we encourage you to try it yourself.

```
ALGORITHM types
VAR
   i : INTEGER := 26;
   f : FLOAT := 4.56;
   c : CHAR := 'c';
   s : STRING := 'str';
   b : BOOLEAN := TRUE;
BEGIN
   // this is a single line comment
   /* this is
   a multi line comment */
   f := i; // correct
   i := f; // wrong
   // we cannot mix types
   f := c; // wrong
   s := c; // correct
```

```
    b := i; // wrong
END
```

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