Data\_Types

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2024-10-30

## R Markdown

# Data Types in R - Annotated Code Report  
#In R, various data types are available to handle different kinds of data. Here is an overview with example, code and comments explaining each type.  
  
## 1. Numeric  
# Assign a numeric value to a variable  
a<- 42 # 'a' stores a numeric value (double by default).  
  
## 2. Integer  
# Assign an integer value using the 'L' suffix  
b<- 5L # 'b' is explicitly set as an integer.  
  
## 3. Character (String)  
# Assign a character string to a variable  
char<- "Hello, World!" # 'char' is a string containing text.  
  
## 4. Logical (Boolean)  
# Assign a logical value (TRUE or FALSE)  
c<- TRUE # 'c' holds a boolean value of TRUE.  
  
## 5. Complex  
# Create a complex number  
s<- 4 + 3i # 's' holds a complex number (4 + 3i).  
  
## 6. Vector  
# Create a vector with different elements of the same type  
v<- c(1, 2, 3, 4, 5) # 'v' is a numeric vector.  
  
## 7. List  
# Create a list that can contain different data types  
p<- list(42, "text", TRUE, 3 + 2i) # 'p' contains multiple data types.  
  
## 8. Factor  
# Create a factor for categorical data  
q<- factor(c("Low", "Medium", "High", "Medium")) # 'q' is a factor with levels.  
  
  
## 9. Matrix  
# Create a matrix with numeric data  
m<- matrix(1:9, nrow=3, ncol=3) # 'mat' is a 3x3 numeric matrix.  
  
## Summary  
#Each of these examples demonstrates the basic data types in R. Understanding these data types is essential for working effectively with R.