

# Java Data Types in Selenium Automation

Foundational Architecture for Robust Test Scripts

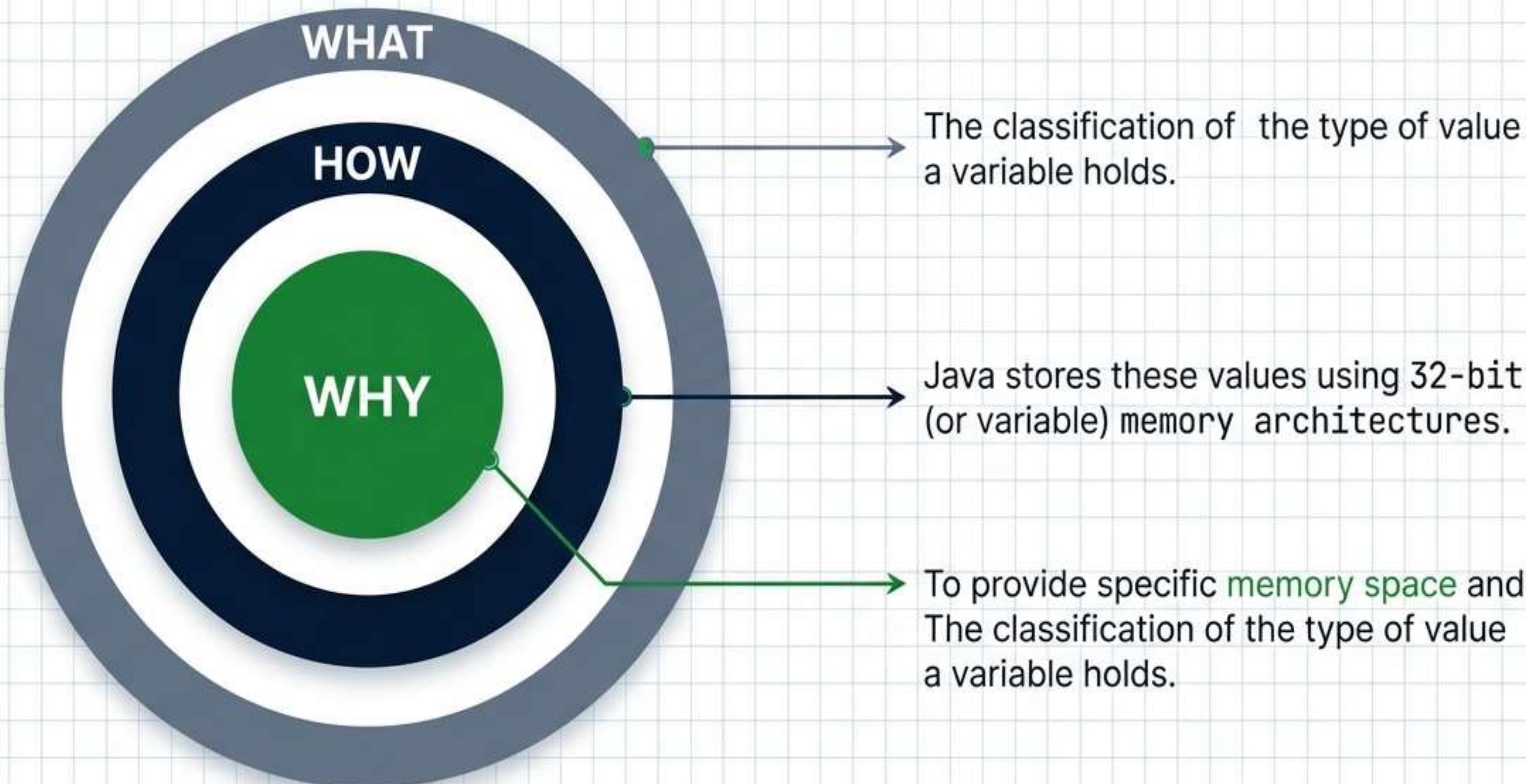
```
boolean boolean String;
```

```
WebDriver driver = new ChromeDriver();
WebElement element = driver.findElement(By.id("username"));
WebElement element = driver.findElement(By.id("username"));
```

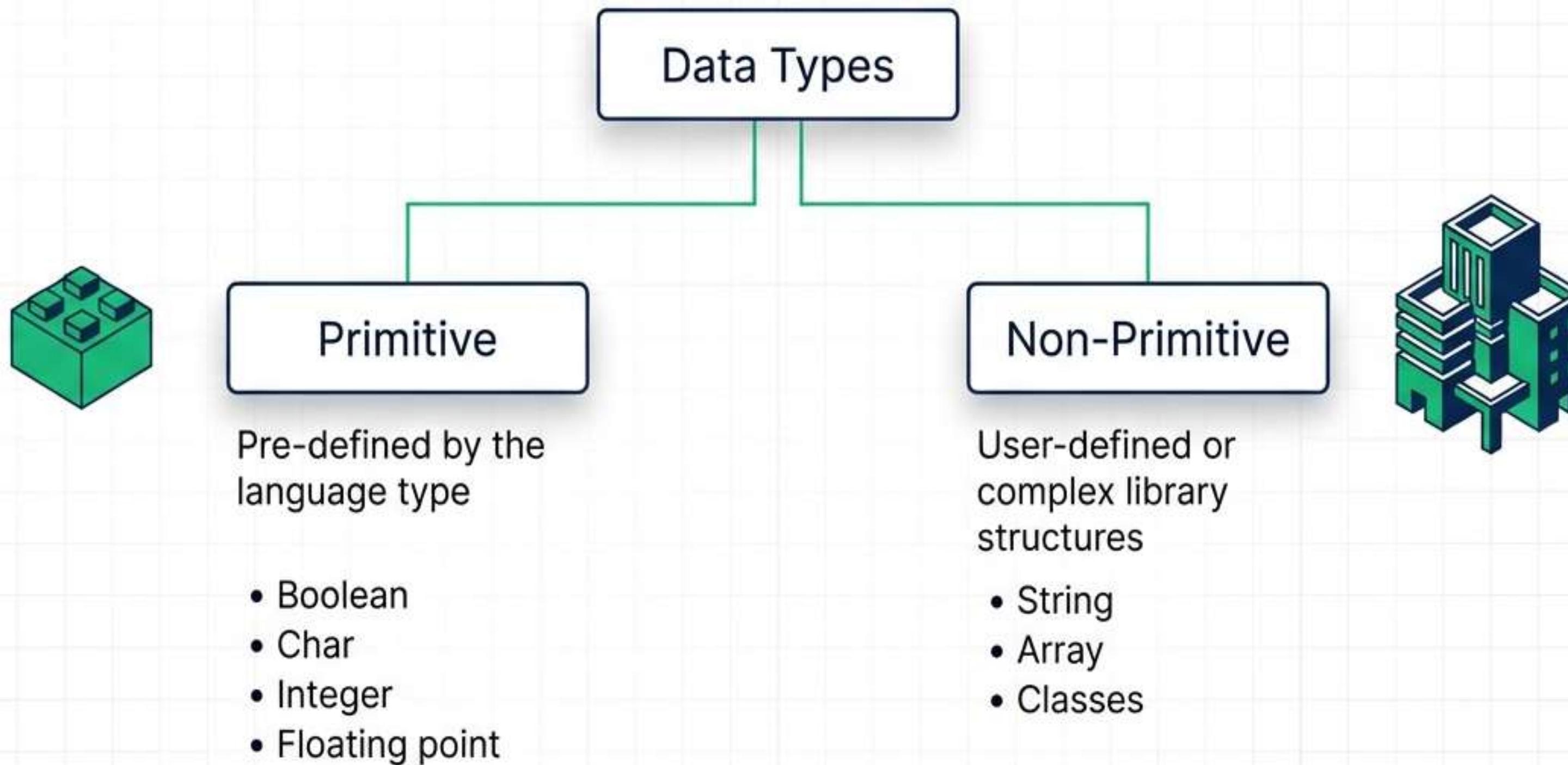
```
boolean boolean exsar = false;
```

```
int string = enaoing;
```

# The Strategic Role of Data Types



# The Data Hierarchy



# Primitive Data Standards & Classifications

## Logic Control



boolean (**True/False**)

## Integers



byte,  
short,  
int,  
long

## Text



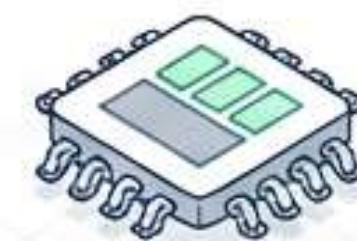
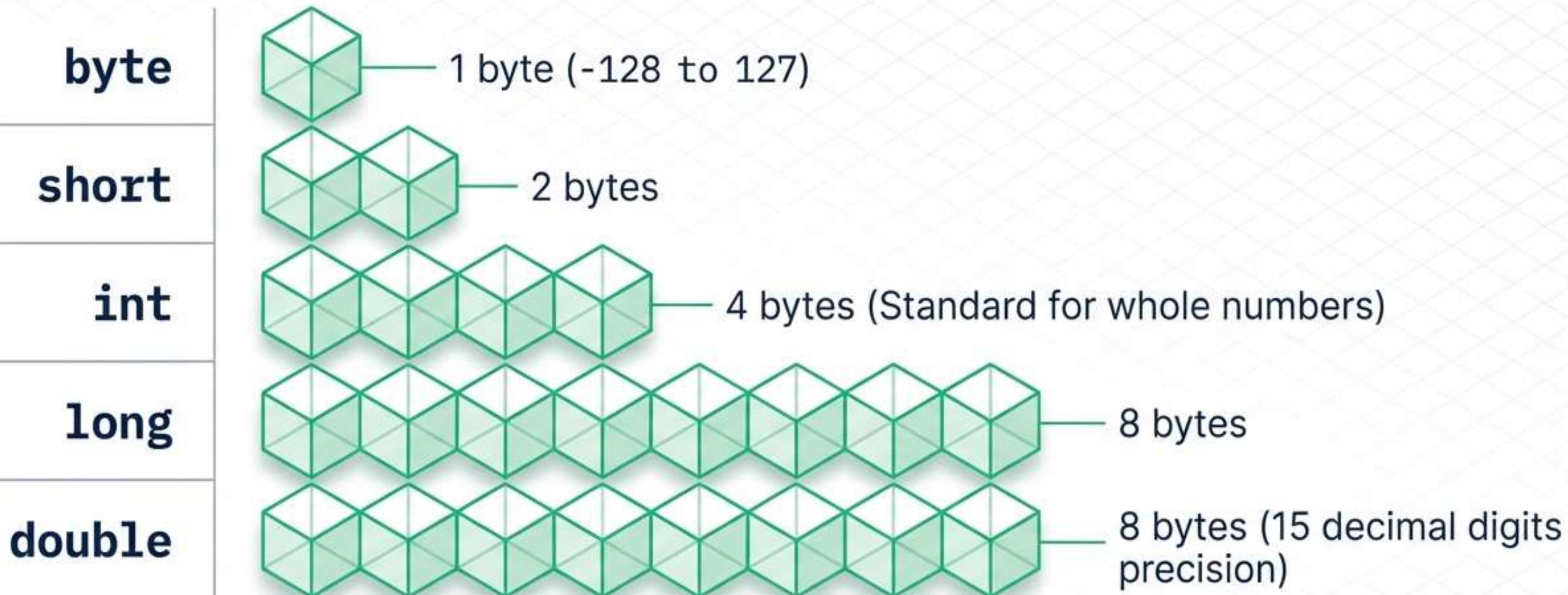
char (Single Character/ASCII)  
**'A'**

## Floating Point



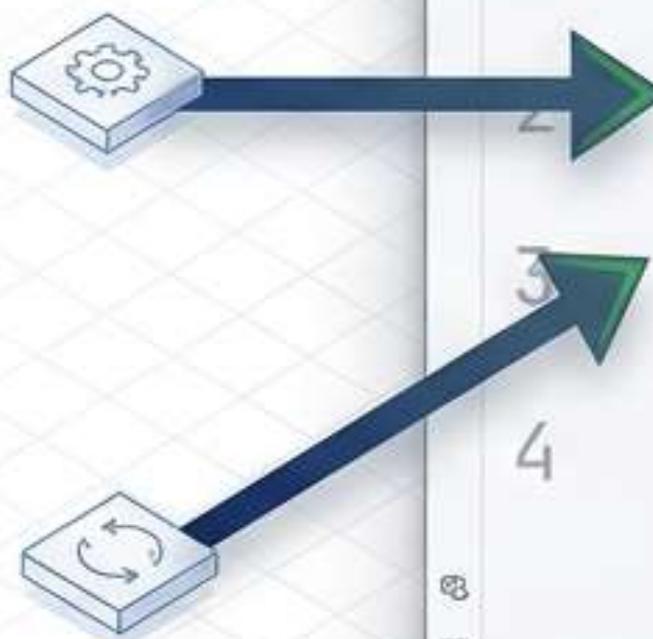
float,  
double

# Memory Architecture & Allocation

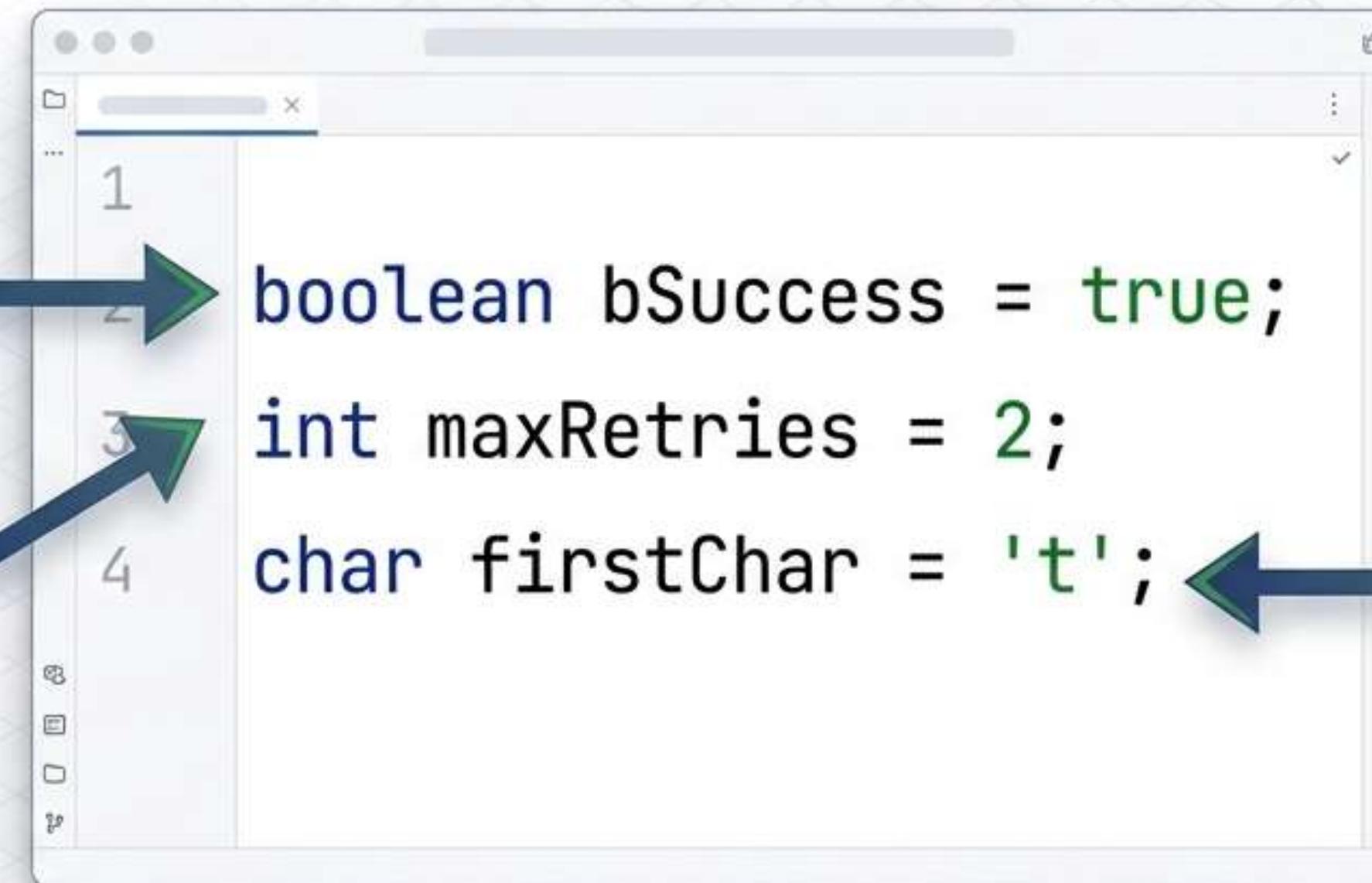


# Applied Data Types in Selenium WebDriver

**Control Flow:** Used for validation flags.



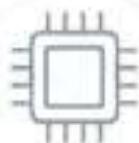
**Iteration:**  
The standard for loops and counters.



A screenshot of a code editor window displaying the following Java code:

```
boolean bSuccess = true;  
int maxRetries = 2;  
char firstChar = 't';
```

**Input:**  
Sending specific key commands.



# Engineering Standards for Data Types



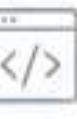
**Default to `int`:** Use for whole numbers unless memory constrained.



**Precision Priority:** Prefer `double` over `float` for calculation accuracy.



**Naming Conventions:** Use `camelCase` (e.g., `isElementDisplayed`).



**Initialisation:** Always initialise local variables to prevent errors.

