

```
int num = 10;  
double dont = 7.5;  
String string = "gne";  
boolean boolean = false;
```

```
public static void mainFunction() {  
    WebDriver driver = new ChromeDriver();  
    WebElement element = driver.findElement(By.id("username"));
```

Java Data Types in Selenium Automation

Foundational Architecture for Robust Test Scripts

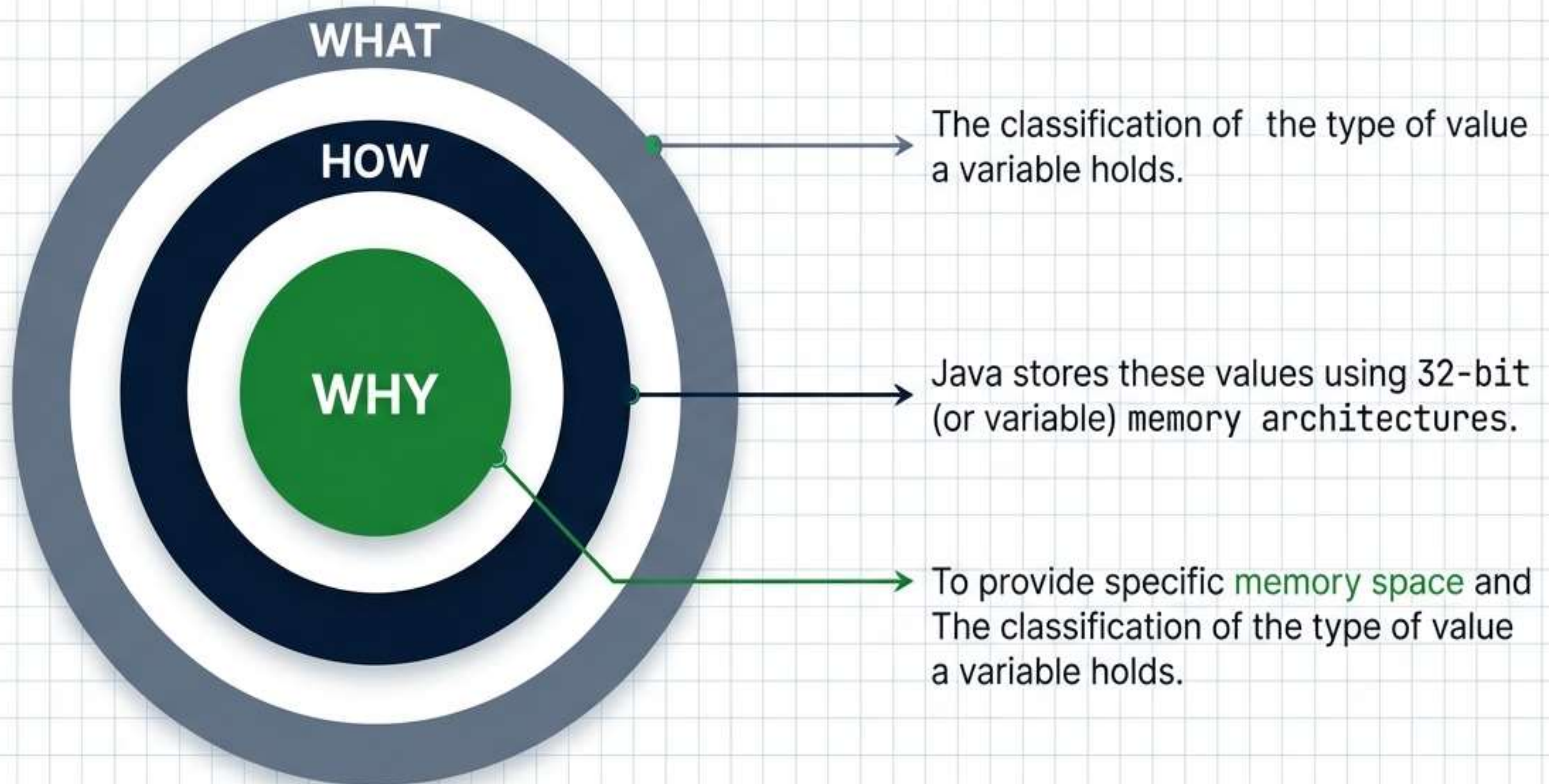
```
boolean boolean String;
```

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

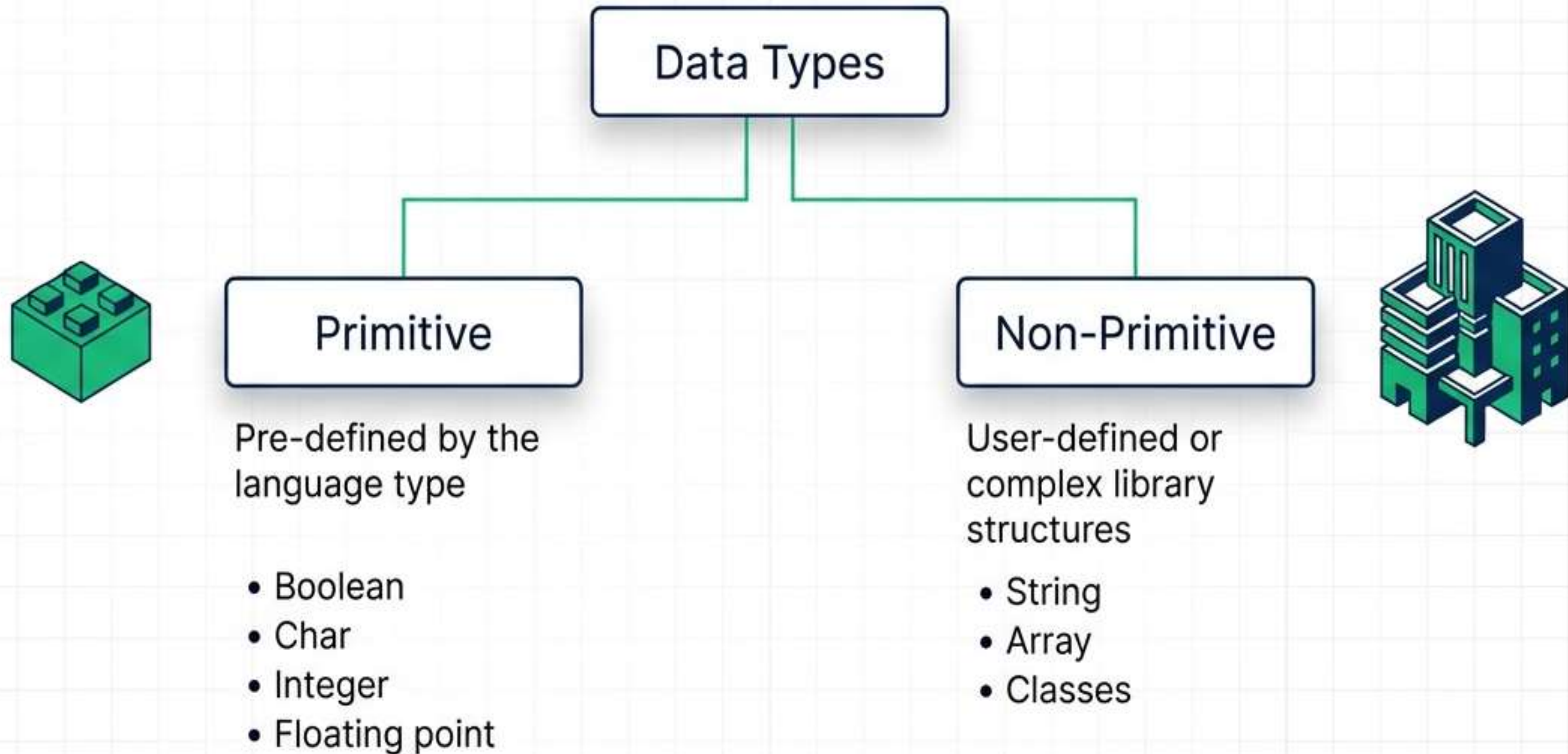
```
boolean boolean exsar = false;
```

```
int sring = endoing;
```


The Strategic Role of Data Types



The Data Hierarchy



Primitive Data Standards & Classifications

Logic Control



boolean (**True/False**)

Text



char (Single Character/ASCII)
'A'

Integers



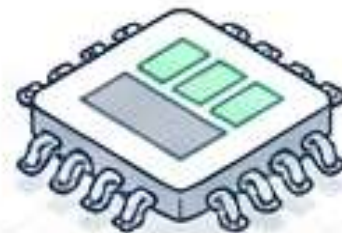
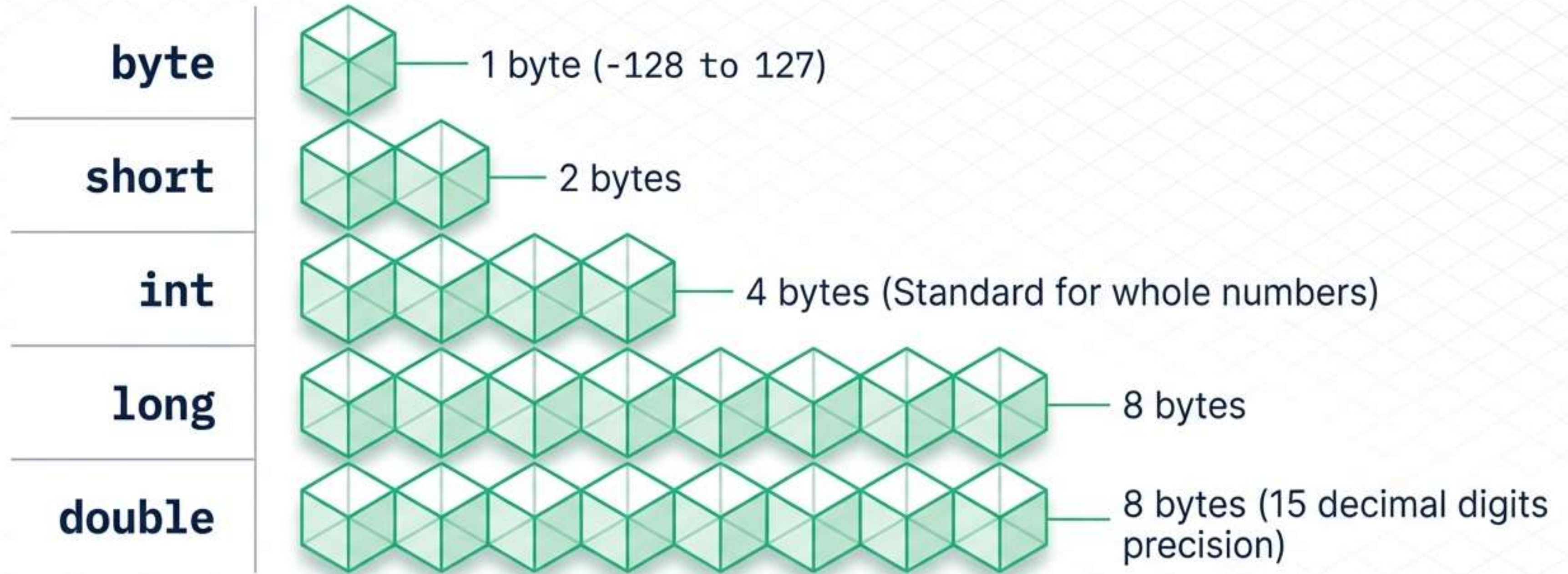
byte,
short,
int,
long

Floating Point



float,
double

Memory Architecture & Allocation



Applied Data Types in Selenium WebDriver

Control Flow: Used for validation flags.



```
1  
2 boolean bSuccess = true;
```



```
3 int maxRetries = 2;
```



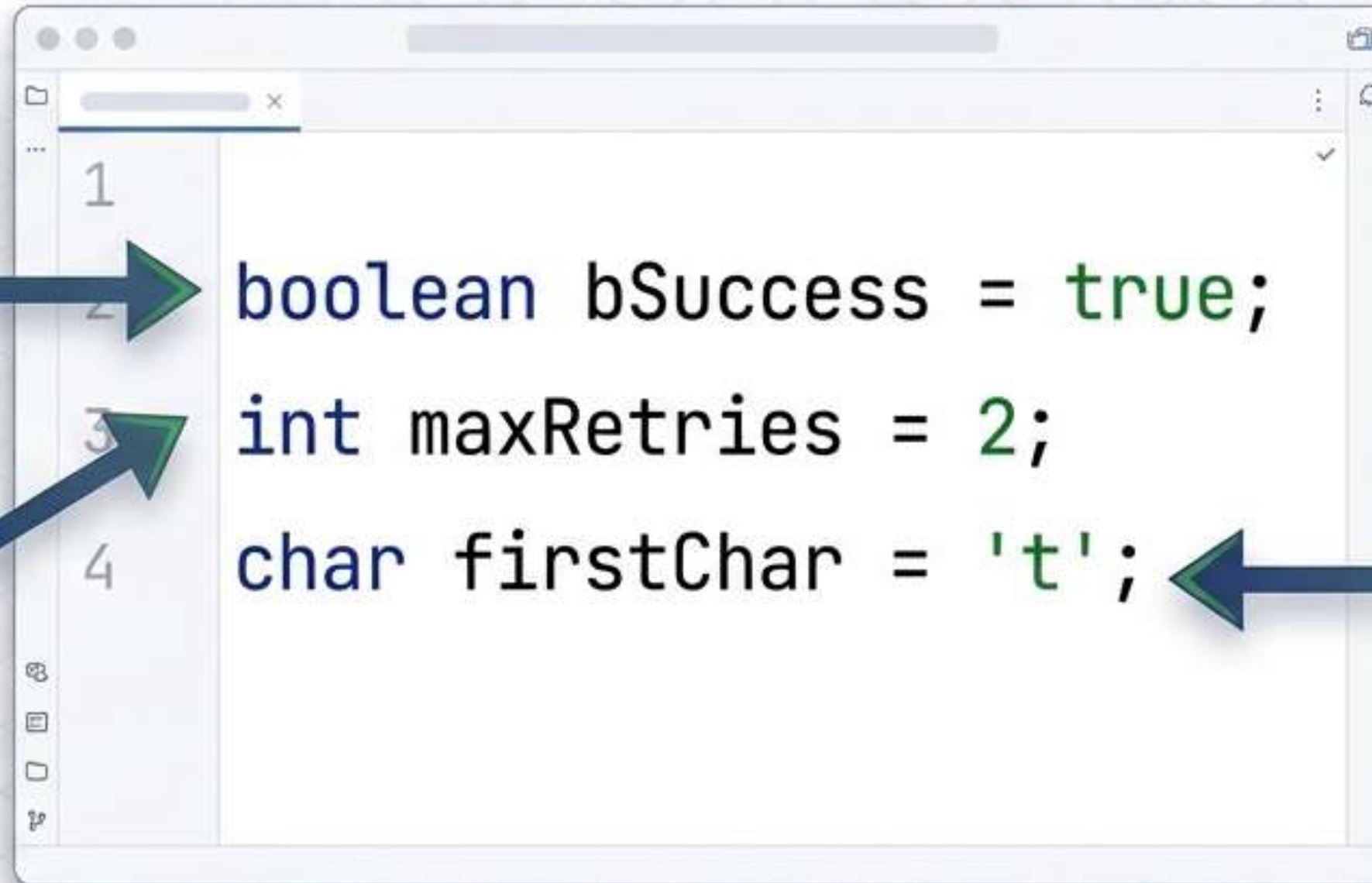
```
4 char firstChar = 't';
```

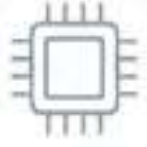


Input:
Sending specific key commands.



Iteration:
The standard for loops and counters.





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.

