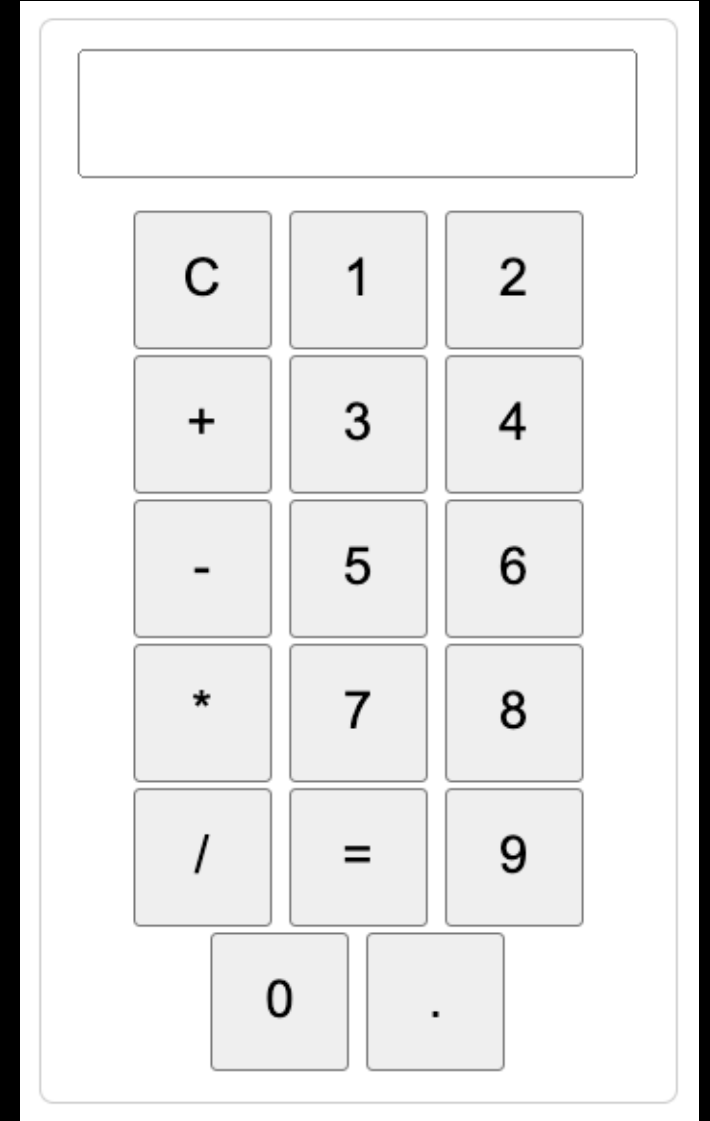


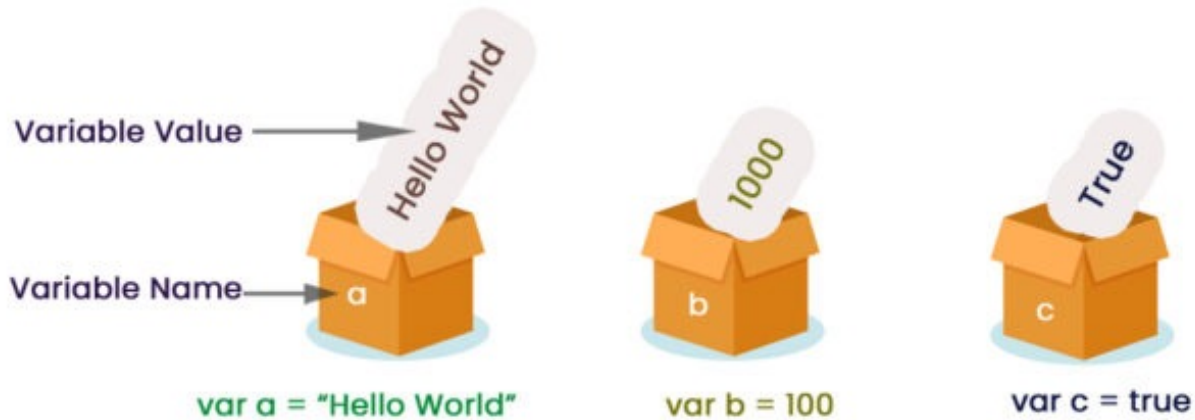
Variables

- What are Variables
- Syntax Rules
- Updating Values
- Myntra Bag Exercise
- Naming Conventions
- Ways to create Variables



What are Variables?

Variable is used to Store Data



Variables are like containers used for storing data values.

Syntax Rules

```
1 // Defining a number variable
2 let noOfStudents = 5;
3 // Defining a String variable
4 let welcomeMessage = "Hello Beta"
```

1. Can't use **keywords** or reserved words
2. Can't start with a **number**
3. No special characters other than **\$** and **_**
4. **=** is for **assignment**
5. **;** means end of **instruction**

JS Keywords



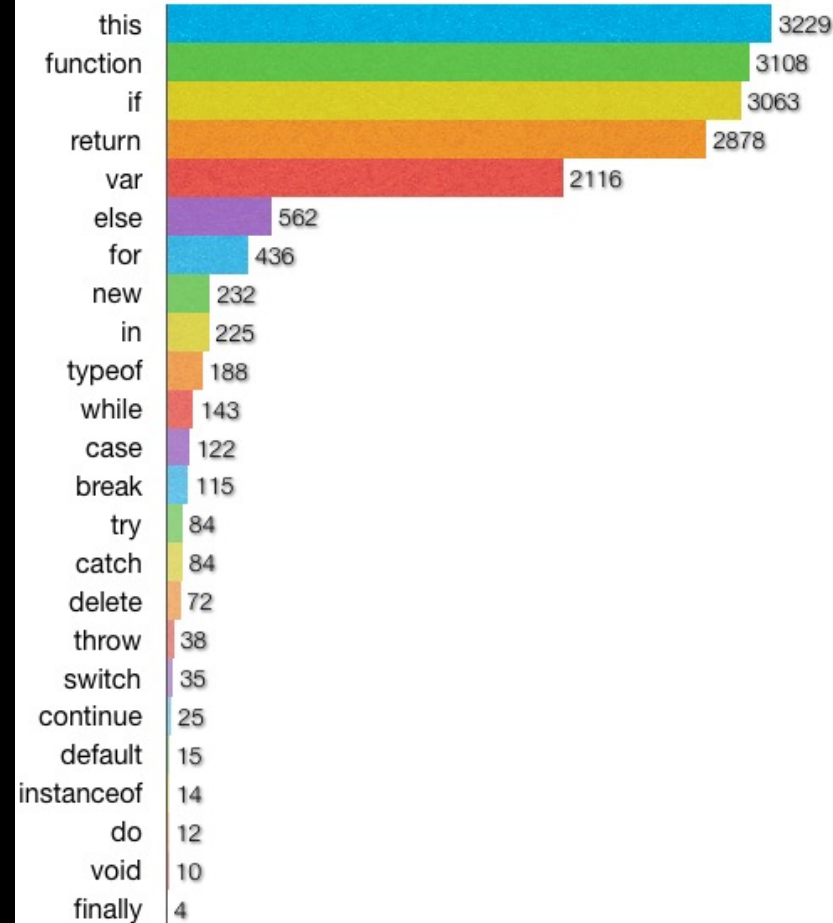
- | | | | |
|------------|-------------|------------|---------|
| •arguments | •enum* | •null | •try |
| •await* | •eval | •package | •typeof |
| •break | •export* | •private | •var |
| •case | •extends* | •protected | •void |
| •catch | •false | •public | •while |
| •class* | •finally | •return | •with |
| •const | •for | | |
| •continue | •function | | |
| •debugger | •if | | |
| •default | •implements | | |
| •delete | •in | •static | |
| •do | •instanceof | •super* | •yield |
| •else | •import* | •switch | |
| | •interface | •this | |
| | •let* | •throw | |
| | •new | •true | |

Reserved Words

JavaScript

Words marked with* are new in ECMAScript 5 and 6

Keyword Frequency



Naming Conventions

camelCase

- Start with a lowercase letter. Capitalize the first letter of each subsequent word.
- Example: `myVariableName`

snake_case

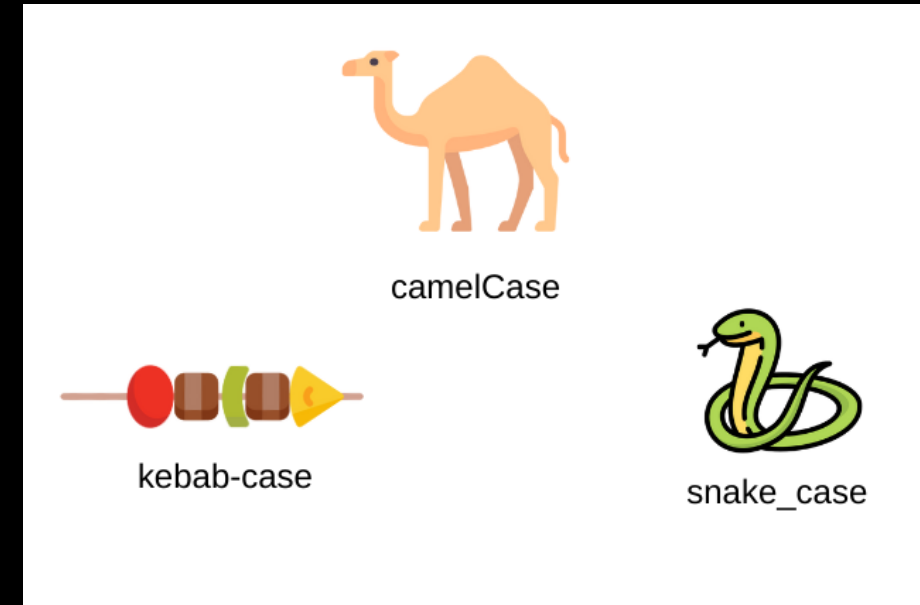
- Start with an lowercase letter. Separate words with `underscore`
- Example: `my_variable_name`

Kebab-case

- All lowercase letters. Separate words with `hyphens`. Used for HTML and CSS.
- Example: `my-variable-name`

Keep a Good and Short Name

- Choose names that are descriptive but not too long. It should make it easy to understand the variable's purpose.
- Example: `age, firstName, isMarried`



Practice Exercise

Variable Naming

- username
- totalAmount
- 99balls
- User3
- first name
- new
- function
- _score
- maxHeight
- user-name
- \$budget
- class
- 2024Year
- last_name
- Count99
- user@name
- boolean
- var
- indexValue
- tempVar

Practice Exercise (Solution)

Variable Naming

- username
- totalAmount
- 99balls - Incorrect, cannot start with a number.
- User3
- first name - Incorrect, contains a space.
- new - Incorrect, uses a reserved keyword.
- function - Incorrect, uses a reserved keyword.
- _score
- maxHeight
- user-name - Incorrect, hyphens are not allowed.
- \$budget
- class - Incorrect, uses a reserved keyword.
- 2024Year - Incorrect, starts with a number.
- last_name
- Count99
- user@name - Incorrect, special characters like @ are not allowed.
- boolean - Incorrect, uses a reserved keyword.
- var - Incorrect, uses a reserved keyword.
- indexValue
- tempVar

Updating Values

```
let noOfStudents = 5;  
noOfStudents = noOfStudents + 1;
```

```
let money = 1;  
money += 5; // money = 6  
money -= 2; // money = 4  
money *= 3; // money = 12  
money /= 4; // money = 3  
money++;    // money = 4
```

1. Do not need to use **let** again.
2. Syntax: **variable = variable + 1**
3. Assignment Operator is used **=**
4. Short Hand Assignment Operators:
+=, -=, *=, /=, ++

Myntra Bag Exercise

Add to Bag

MOVE TO WISHLIST


Add 1+1 sale item

Your Bag has 2 items

1. **Implement** the above three buttons
2. **Add to Bag** should **add an item** to the bag
3. **Move to wishlist** should **remove an item** from the bag
4. **Add 1+1 sale item** should **add 2 items** to the bag


Ways to Create Variables

var

var apple = 



a thing in a box
named "apple"

apple = 



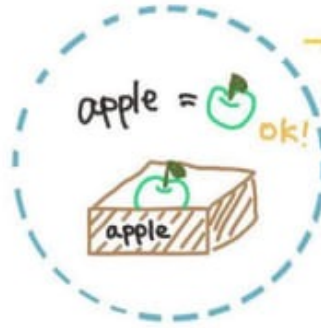
you can swap
item later


let

let apple = 



a thing in a box
named "apple" w/
protection shield



apple = 

ok!

you can swap item
only if you ask
inside of the shield

~~apple = ~~ NG

const

const apple = 



a thing in
LOCKED cage
named "apple"



~~apple = ~~ NG

you can't
swap item
later.



apple.multiply(3)
ok!

... but you can ask
the item to change itself
(if the item has method
to do that)

const

let

var

Practice Exercise

Variables

1. **Save** your name in a **variable** inside script tag
2. **Display** name from the **variable** on the page
3. **Calculate** the cost of **Myntra Bag** and keep it in a variable
4. **Show** it to **console**
5. **Keep** **GST** percentage as **constant**
6. **Use** **eval** method from math to convert string calculation into result



Project: Calculator

