## **JavaScript Notes: Functions**

# **✓** What is a Function?

A function is a block of code that performs a specific task.

It helps you reuse code, so you don't repeat yourself (DRY - Don't Repeat Yourself).

## Declaring a Function

```
js
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function sayMyName(){
  console.log("P");
  console.log("R");
  console.log("A");
  console.log("N");
  console.log("Y");
}
```

This function doesn't take any input and just prints letters of your name.

#### Calling a Function

js

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sayMyName(); // This runs the function

Writing sayMyName without brackets gives just the reference, not execution.

#### Function with Parameters & Arguments

```
js
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function addition(num1, num2){ // num1 & num2 are parameters
   console.log(num1 + num2);
}
```

#### • Return in Functions

```
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function addition(num1, num2){

let result = num1 + num2;

return result;
}

const result = addition(3, 4);

console.log("Result: ", result); // Result: 7

return sends the value out of the function to be used later.
```

Any code written after return won't run!

# Handling Undefined Values

```
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function loginUserMessage(username){

    if(username === undefined){

        console.log("Please enter a username");

        return;

    }

    return `${username} just logged in`;
}

js

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console.log(loginUserMessage("Pranay")); // Output: Pranay just logged in console.log(loginUserMessage()); // Output: Please enter a username
```

Imagine a function like a vending machine:

- You insert coins (arguments).
- The machine calculates the item (logic).
- Then returns you the snack (return value).



If you don't write a return, the function gives back undefined.