* Garbage Collector

-> It is used to deallocate the memory.

· St Rapidos 311

-> It runs at autometically in background.

-> We have no contol over it, mean we cannot contol the start lend of it.

of the following the source follows

* Math Object

Math is a built-in object that has properties and methods for mathematical constants and function.

* Math Properties 115 2009 1000

The syntax vis:

Math. property

Ex- Math. E 11 returns Eulers number.

Math. PI 11 returns PI

Math. SQRT2 11 returns square root of 2

cantal Open, Alga

of Math Methods

The syntax is:

Math. method (number) love of the

Exindend in plantameter the cour til .

Math. round(x) Returns x rounded to its

hand hand handster integer towards

to markage Collector

Math.ceil(x) Returns x rounded up to its nearest integer.

Math. floor(x) Returns x rounded down to its

Math.trunc(x) Returns integer part of x

Math.pox(x,y) Returns the value of x to the power of y'

Mathisquet(x) returns the square root of x.

Mathabs (x) Returns the absolute (tue) value of x.

Math.min() Returns the lowest value in a list of arguments

Math.max() Returns the highest value in q

* String

The string object is used to represent and manipulate a sequence of characters.

Creating Strings, beloomen with

It can be created as primitive, from string literals or as objects, using string U constructor.

Ex 11 primitive

const str2 = 'A string primitive';

const str2 = "A string primitive";

const str3 = 'A string primitive';

Minere are backtick characters

String Methods

11 using objects 2200 ragge

const stry = new String (" A string object");

>> We can convert primitive string into object by using character.

A string object can also be converted to its primitive counterpart with the value of () method.

- * String Methods
- => length It returns the length of a string
- => slice() Extracts a part of string and returns the extracted part in a new string
- => substring(start, end) some ous slice but start & end values are less than o
- > Substr (start, end) Same as slice but second parameter specifies the

length of the extracted part

- >> & replace() sufficiently replaces a specified walve with another value in a string.
- >> to Upper Case() A string is converted into upper case.
-) to Lower Case () A string is converted into lower case.
 - > concat() It joins two or more strings
- trim!) It removes whitspace from both
- => trimstart() and trim End()

+ Template Literals

It uses back-ticks (') rather than the quotes ("") to define a string.

m mine

griste Ex Net let à Héripple Morld; l'aboldmat

=> You can use both single and double quutes inside a string.

let text = "He's often called "Johnny";

=> Templote literals allows multiline etrings:

Ex let text =

reter = 30000 poli agosti agosti preser lossage the best news ever;

* Interpolation

2010921 det

Template literals provide an easy way to interpolate variables and expression into string.

Reduct

This method is called string interpolation.

Moralia stolding - + Syntax Uses back-ticky ()) golfon. July of the * Variable Substitution Template literals allows variables in strings. Ex. You can use both single and do let frame = "Rishabh"; above astroop let Iname = "kushwaha"; let text = Welcome & Stramey, & Stramey! ; Output : cresione amilifiam surio dinostil aboldmat Welcome Rishabh Kushwaha! * Escape sequence can be encoded using Special characters escape orquence. code Resut Description

of upon your on shivery donner perste vitori moissarque mb en salainime double quote is called string instrayolation.

null character single quote backslash newline tab space

* Date Objectson handhice wollows to it fit Dotte objects are created with the new Dottel) constructor.

There are I ways to create a new date object.
2 spends of losse shafter solles

replace to la sopplect.

new Darte()

new Date (date string)

11 const d = new Date ("October 13, 2014 11:13:00");

new Date (year, month)

new Date (year, month, day)

new Dode (year month, day hours).

new Date (year, month, day, hours, minutes)

new Datelyear, month, day, hours, minutes, seconds)

new Date Cyear, month, day, hours, minutes, seconds, ms)

new Date(milliseonds) diversals privous?

& Setter * Getter embining elements

⇒ get

It is a function without arguments. The Tavascript getter methods are used to access the properties of an object.

=> set

A function with one arguement. The Javasript setter methods are used to change the values of an object.

* Array Object

An array object is used to store multiple values in a single variable.

ness Boldmilliser

const cars = ["Saab", "Volvo", "BMW"];

new Date (year, month, day, hours, minutes) Array Operations

Adding new elements

* Finding elements

* Removing elements

* Spilitting elements

* Combining elements

* Array Creation

let ans1 = [42,3,4,5];

* Insertion

-> at start -- arr.push(o); Index no. of values to be removed

Magnetin - know the

: [] - Line

-> at middle -- arrisplice (1,0,1a1,1b1);

-> at end -- arr.unshift(6);

* Searching

We can use:

indexed - Searches an array for an element and returns its position.

includes() - checks if an array contains the specified element.

So when we assign now a []

NOTE - Predicate Functions

Predicate functions are functions that return a single TRUE or FALSE.

* Removing

-> at estart -- arrishitt

-> at middle -- am-splice (index, no. of elements you want

-> end -- arr.pop() militario process * Emplying An Array arr1 = []; Il array will be empty because of garbage collector let: (nom1) == [1,2,3];00 let num2 = num1/.000 num1 = []; 11 but its not a good way delete an array Il because its an object so address will be copied not the copy is created. and returns its position. spin spinty num 10000 [1/2,3] 2/2010 num2 Français los férages so when we assign num1 = [] num2 12137 1 10016 9 arutar both which a cingle Tille or Here nums will point to an empty orray.

=> The best way to delete an array is using the below code.

arr. length = Pai princeson 1 princes 1 => There is another way to delete an array using the splice(). . you calchorable no num1. splice (0, num1. length) julio sol) sol coursele leg (value); * Combining And Slicing An Array Combine for Each () mail-let 19871 (1100) 100 1100 1100 1100 let 0000 arr2 = [3,4,5]/(0)0 (00) let combine = arr1. concat(arr2); 2001 Jose Each (Junction Grundon) of => Slice console log (number); combine. slice (starting index, ending index); 11 ending index means it will take value 1011/16 Index ending -1 (I don't ref grant revoci Combining an larray using Spread operator (...) let combine = [...arr1,...arr2]; Creating a copy using spread operator (...) let another = [...combine];

* Iterating I traversing an Array We will us jorg loop because it works on iterables only. for (let value (d'op) arri). L'assilgantaur console.log(value); -x- Combining And Sticing An Arroy C => Compine => for Each() The forEach!) method calls a function for each element in an array. let combine = and concot (arra); arrs. JorEach Counction (number) of console.log(number); combine. slice (starting index, ending index); Converting for Each() into arrow (=>) function art 1. for Each (number => console.log (number)); + Joining Arrays

const joined = arrijoin (',');

* Spilitting an Array

let mes of this is my name of let parts = mes.split(');

xohan?

* Sorting an Array

let numb = = [3,7,0,9,6];

y (sulpumbiososto) rolliformum = barotill tel We can also sortularly marray in reverse order after sorting in an unsorted array. [numb. reverse()]

Using => Junction (or reversely is used to reverse an array, it overwrites the original array.

=> Above functions cannot sort an object, it con be doné using predicate junction.

+ Filtering an Array

=> The filter() method creates a new array filled with elements that pass a test provided by a function.

=) It doesn't change the original array.

Collitting on Army Syntax array-fitter bounction (corrent Value, index, arr), this Value) -> refers to optional values let num = [5,7,-6,-3,0]; let filtered = numb. filter (function (value) of 3) joern behoode no ni prihood so Using => Junction let filtered = num-filter (value => value >=0); * Mapping in Array a function for each array element.

-> It calls a function once for each element in an or arrayont on

25 27 It does not change the original array.

chands quilling of the original array.

```
let num = [7,8,9,1];
     let items = numinap (function (value) &
        (l'arkturn d'astudent_no + value;
     y); 6000
   Using => function
    let items = num.map(value => 'student_no 'tvalue);
-* Mapping With Objects
      let num = [7,8,-7,-10];
     let filtered = num.filter(value => value 7=0);
     let items = filtered.map(function(number) of
              return évalue: numbery;
      3);
    Using => Junction
    let items = filtered-map(number => Evalue: number });
-k Chaining
     In chaining we replace a variable with
```

original code.

Hems = num gilter (value >= 0) · map (mnumber => & value: numbery); Il In the above code we replaced filtered Il variable with its original code. stanton + one-troducted to sulpy from mon - smoth tak Mapping With Olgieots :[01-, F-, B, R] = mur fol : 6 : sulov & sulow rottificanon = barotif tel I frame = filtered map (function (number) of reform funtue: numbers; nothing a prist if England : interest and interest of Explorers in the In chaining we replace a veniable with

shoon linking who