

TASK 2

1). HOW DO YOU COPY BY VALUE A COMPOSITE DATA TYPE?

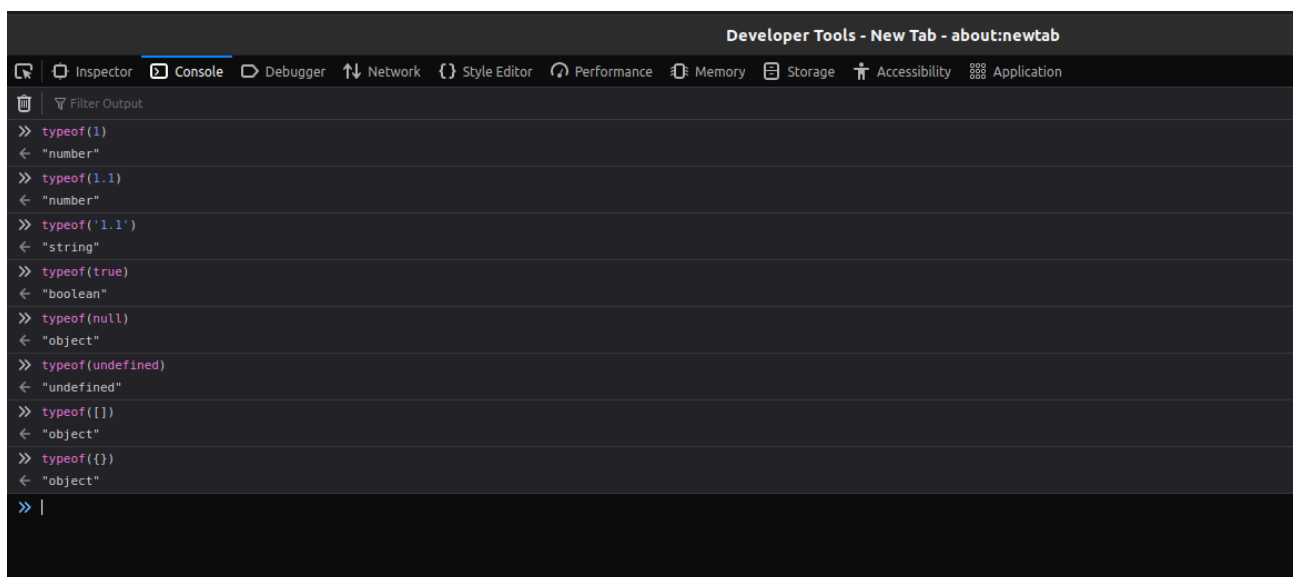
A: It is done using DEEP COPY using spread operator in java script. The spread operator selects all the data inside an array or an object and stores it. then we create a new memory to store it.

2) WHY THERE IS A DIFFERENCE IN BEHAVIOUR FOR COPYING CONTENTS IN PRIMITIVE AND NON-PRIMITIVE TYPE?

A: In primitive data type the it is pre defined its value cannot be changed, but in non primitive data type the value is not defined it is used to call functions, they are often called as 'object references' they define the memory location which stores the data.

3)TYPE OF ALL DATA TYPES

A:



```
Developer Tools - New Tab - about:newtab
Inspector Console Debugger Network Style Editor Performance Memory Storage Accessibility Application
Filter Output
>> typeof(1)
< "number"
>> typeof(1.1)
< "number"
>> typeof('1.1')
< "string"
>> typeof(true)
< "boolean"
>> typeof(null)
< "object"
>> typeof(undefined)
< "undefined"
>> typeof([])
< "object"
>> typeof({})
< "object"
>> |
```

4) WRITE A BLOG ABOUT OBJECTS AND ITS INTERNAL REPRESENTATION IN JAVASCRIPT

A: <https://girigokul3.medium.com/objects-and-its-internal-representation-25e989e954ae>

5). EXECUTE AND SEE ATLEAST 15 CLI COMMANDS.

A:

- **pwd** command to find out the path of the current working directory (folder) you're in.
- To navigate through the Linux files and directories, use the **cd** command. It requires either the full path or the name of the directory, depending on the current working directory that you're in.
- The **ls** command is used to view the contents of a directory. By default, this command will display the contents of your current working directory
- **Cat** command, It can be used to list the contents of a file. It can also be used to create a text file
- Use the **cp** command to copy files from the current directory to a different directory
- **cd ..** is used to move up a directory
- The **touch** command allows you to create a blank new file through the Linux command line.
- **Man** command gives the detail about that command.
- **Mkdir** creates a new directory
- **rmdir** removes the directory
- **Head** command gives us the first 10 lines in a text file
- **tail** command gives us the last 10 lines in a text file
- **sudo** is known as (superuser do) which enables you to perform tasks that require administrative or root permissions.
- **Df** command to get a report on the system's disk space usage
- **ping** command to check your connectivity status to a server. For example, by simply entering `ping google.com`

```

(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ pwd
/home/gokul
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ cd
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ cd Guvi
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~/Guvi$ ls
guviIDE  hello.html  index.png  jb.html  Photos  'VIDEOS material'
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~/Guvi$ cp jb.html jb1.html
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~/Guvi$ ls
guviIDE  index.png  jb.html  'VIDEOS material'
hello.html  jb1.html  Photos
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~/Guvi$ cd ..
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ cd Guvi
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~/Guvi$ cat jb.html
<!DOCTYPE html>
<html>
  <body>
    <script>
      var N = 3;
      var mul = 9;
      var num = 0;
      if(N===0)
      {
        console.log("NULL");
      }
      else
      {
        let i = 1;
        while(i<=N)
        {
          num = mul*i + ' ';
          console.log(num);
          i += 1;
        }
        //console.log(num);
      }
    </script>
  </body>

```

```

gokul@gokul-Lenovo-YOGA-730-13IKB:~/Guvi$ man ls

```

```

LS(1)
NAME
    ls - list directory contents
SYNOPSIS
    ls [OPTION]... [FILE]...
DESCRIPTION
    List information about the FILES (the current directory by default).
    Mandatory arguments to long options are mandatory for short options.
    -a, --all
        do not ignore entries starting with .
    -A, --almost-all
        do not list implied . and ..
    --author
        with -l, print the author of each file
    -b, --escape
        print C-style escapes for nongraphic characters
    --block-size=SIZE
        with -l, scale sizes by SIZE when printing them; e.g., '

```

```

(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~/Guvi$ touch /home/gokul/Documents/Web.html
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~/Guvi$ cd Documents
bash: cd: Documents: No such file or directory
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~/Guvi$ cd /home/gokul/Documents
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~/Documents$ ls
'1.1 vs 2.0.doc' 'Difference Between BROWER Js and NODE Js.doc' DNS.doc 'HTTPS Evolution.doc' 'project details' 'task 2.odt' Web.html

```

```
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ mkdir gokul
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ ls
anaconda3  Documents  file.txt  g.js  gokul1.txt  google-chrome-stable_current_amd64.deb  Music  Public  Templates  zoom_amd64.deb
Desktop    Downloads  gj.html  gokul  gokul.txt  Guvi  Pictures  snap  Videos
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ rmdir gokul
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ ls
anaconda3  Documents  file.txt  g.js  gokul.txt  Guvi  Pictures  snap  Videos
Desktop    Downloads  gj.html  gokul1.txt  google-chrome-stable_current_amd64.deb  Music  Public  Templates  zoom_amd64.deb
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$
```

```
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ head -n 5 file.txt
hello world, have a good day. the pandemic has caused us a lot of damage
hi
hijrsj
dhbihrf
shdbviebvf
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ tail -n file.txt
tail: invalid number of lines: 'file.txt'
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ tail -n 5 file.txt
hvbfdhbfv
jhbfdhsb
jhbfdhsbfv
jhbvjhsbv
hjfv jdhsb
```

```
(base) gokul@gokul-Lenovo-YOGA-730-13IKB:~$ ping google.com
PING google.com (142.250.76.46) 56(84) bytes of data:
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=1 ttl=118 time=4.01 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=2 ttl=118 time=5.90 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=3 ttl=118 time=5.84 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=4 ttl=118 time=4.79 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=5 ttl=118 time=325 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=6 ttl=118 time=9.20 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=7 ttl=118 time=21.3 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=8 ttl=118 time=5.63 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=9 ttl=118 time=5.58 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=10 ttl=118 time=5.39 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=11 ttl=118 time=5.73 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=12 ttl=118 time=138 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=13 ttl=118 time=5.35 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=14 ttl=118 time=7.34 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=15 ttl=118 time=7.33 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=16 ttl=118 time=121 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=17 ttl=118 time=5.65 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=18 ttl=118 time=67.5 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=19 ttl=118 time=9.37 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=20 ttl=118 time=6.96 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=21 ttl=118 time=7.21 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=22 ttl=118 time=5.90 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=23 ttl=118 time=75.0 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=24 ttl=118 time=4.02 ms
64 bytes from maa03s36-in-f14.1e100.net (142.250.76.46): icmp_seq=25 ttl=118 time=5.29 ms
^C
--- google.com ping statistics ---
25 packets transmitted, 25 received, 0% packet loss, time 24045ms
rtt min/avg/max/mdev = 4.013/34.556/324.857/69.478 ms
```

6). DIFFERENCE BETWEEN WINDOW, SCREEN AND DOCUMENT.

A: Window:

The JavaScript window object sits at the top of the JavaScript Object hierarchy and represents the browser window. The window object is supported by all browsers. All global JavaScript objects, functions, and variables automatically become members of the window object. The window is the first thing that gets loaded into the browser. This window object has the majority of the properties like length, innerWidth, innerHeight, name, if it has been closed, its parents

Document:

The Document interface represents any web page loaded in the browser and serves as an entry point into the web page's content, which is the DOM tree. When an HTML document is loaded into a web browser, it becomes a document object. It is the root node of the HTML document. The document actually gets loaded inside the window object and has properties available to it like title, URL, cookie, etc

Screen:

Screen is a small information object about physical screen dimensions. It can be used to display screen width, height, colorDepth, pixelDepth etc. It is not mandatory to write window prefix with screen object

7). Extract and print the flag url of all the countries in console. use the html template.

A:

HTML template:

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>GUVI App</title>
</head>

<body>
<div id="root"></div>
<script src="g.js"></script>
</body>
</html>
```

Js :

```
var request = new XMLHttpRequest();
request.open("Get", 'https://restcountries.eu/rest/v2/all', true);
request.send();
request.onload = function()
{
var data = JSON.parse(this.response);
for(let n = 0; n<data.length; n++)
{
console.log(data[n]['flag']);
}
}
```

OUTPUT:

