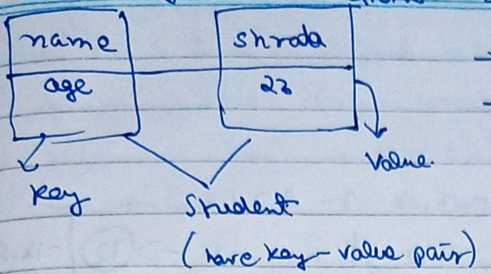
* To do app :- list - to show all todos
add - to add a to do, delete, quit.

- JS object literals (As when array is store krwate clearly nhi milti)

Store keyed collections & complex entities



→ property => (key, value) pair
→ object are collection of properties

→ Declaring :-

can also use let ← const

```
const a = {
    name : "shradha",
    age : 23 ,
    marks : 94 ,
    city : "delhi",
};
```

We can change key value pair but not address as const. is used here.

→ Thread / Twitter Post.

→ Getting values :-

student ["name"] or student . name

→ ~~But~~ if :-

```
let ~~marks~~ prop = "marks";
a[ prop ] ; // 94
a . prop ; // undefined
a[ "prop" ] ; // undefined
```

- Add / Update Value

→ Change the city to mumbai.

→ Add new property, gender : "female"

→ Change the marks to "A".

- Object of objects

```
const student = {
    aman : {
        roll : 28 ,
    },
    xyz : {
    }
```

student . aman . roll
↓↓
28

- **Array of object**

```
const classInfo = ~~{~~[
    {
      name: "aman",
      roll : 29
    },
    {
    },
    ...
]
```

classInfo[0]

classInfo[0].name → aman

- **Math Object**

- Math.PI → 3.14.....
- Math.E → 2.718........
- Math.abs(n) → if n=12, ⇒ 12, | n = −12 ⇒ $\boxed{12}$ | −12.5 to 12.5
- Math.pow(a, b) → a^b
- Math.ceil(n) → larger integer value में round of.

  Math.ceil(5.5) → 6

- Math.floor(n) → round of

  Math.floor(5.5) → 5

  " " (5.9) → 5

  " " (−5.5) → −6

  (nearest smallest int-value)

  नीचे के नज़दीक round of

- Math.random() → 0 to 1 any value excluded 1.

* Random integer

from 1 to 10 →

```
let step1 = Math.random();
let step2 = step1 * (10);
let step3 = Math.floor(step2)
let step4 = step3 + 1
```

(10) → if 1 to 5 के बीच करना होता तब 5

(In order to convert range from 0 to 9 to 1 to 10)

OR

6 Math.floor(Math.random() * 10) ; // Random no. b/w 1 to 10 6

* functions →

(function definition (telling JS))

-
```
function funcName () {
        //do something
}
// for calling
funcName()
```

function with arguments

```
function Printinfo(name, age){
    console.log(`${name} age is ${age}`);
}

Printinfo("shradha", 23);
Printinfo ("karan");
```

↓

Karan age is undefined

क्यों ${age}