

Random Number Generation:-

- `var n = Math.random();`
- Generates random number with 16 decimal place number. between 0-0.99999....

Sample dice game.

```
var n = Math.random();
n = n * 6;
n = Math.floor(n) + 1;
console.log(n);
```

Control statements using if-else conditions and logic:-

- Controlling the flow of the code depending upon the current situation.

Syntax:-

```
if (a == 0000) {
if (condition) {
    // do something;
}
else {
    // do something;
}
```

Example:-

```
if (a == 1) {
    console.log("lights on");
}
else {
    console.log("lights off");
}
```

- Range conditions :- `(a > 1)` etc..

Comparators:-

`===` Is equal to

`!==` Is not equal to

`>` is greater than

`<` is lesser than

`>=` is greater or equal to

`<=` is lesser or equal to

`==` checks also the quality, `"1" == 1` => True.



## Combining different conditions:-

&& → AND → Both condition True - O/P = True

|| → OR → O/P = True either 1 is true.

! → NOT → opposite.

## Arrays in JS:-

→ Collection of something.

⇒ var a = ["arwin", 20, 06, 2004, "B.Tech"];

var myName = a[1];

a.length;

checking  
list. ⇒ if a.includes("arwin") {  
    // do something;  
}

⇒ var output = []; } adding elements in list.  
output.push(1);

output.pop(1); → Removing elements from the list.

## Control statements : while loops:-

### Syntax:-

```
while (Something is true) {  
    // do something  
}
```

### Example:-

~~while~~

var i = 1;

while (i < 2) {

    console.log("Got, code, sleep, repeat");  
    i++;

}

⇒ while loop is an infinite loop.



For loops:-

→ finite loop [range is given]

Syntax:- starting/ending condition.

```
for ( $\boxed{i=0}$ ;  $\boxed{i < 2}$ ;  $i++$ ) {  
    // do something;  
}
```

→ Iteration.