

# Introduction to Software Systems (CS6.201)

Summer 2021, IIIT Hyderabad

17 June, Thursday (Lecture 8) –

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## Arrays

Arrays can be defined using the `Array` keyword; for example,

```
let iiit = new Array("MS", "BTech", "MTech", "PhD", "Post Doc", "BSc")
```

They can be indexed as in C and C++, *i.e.*, `iiit[i]`.

If the array is printed, the entries are listed in a comma-separated fashion.

`iiit.shift()` flushes the first element of the array; `iiit.unshift("new")` adds "new" to the beginning.

Similarly, `pop()` and `push()` remove and add elements from the end respectively.

## Maps

A map is similar to an array, but consisting of key-value pairs rather than index-value pairs. The key can be of any datatype.

They can be declared as `let newmap = new Map();`. Pairs can be inserted in them with the `set()` function:

```
newmap.set("key1", value1).set(key2, value2)
```

## Frameworks

JavaScript libraries are collections of pre-written JS scripts. A JavaScript Framework is a library in which all the functions are bundled together to work in a certain way.