

10:13 AM Fri 6 Aug

## 03 Algorithm Representation

x 203 course administration

x syllabus

x 02 Model Of Computation

x 008 example

x 03 Algorithm Representat...

x 04 Algorithm Analysis

Find Max ( Num ) {

- is Num sorted !
- Linear search
- Go through array
- Keep track of largest element seen so far
- If you see a larger number later, change the largest number

Amit Chintamani Awekar

+116

MV

PP

M

YS

YENUGONDA SUMA S...

PANKAJ YADAV

PRANAV NAIR

Amit Chintamani Awekar

ANINDYA VIJAYVARG...

ST

10:18 AM Fri 6 Aug

## 03 Algorithm Representation

x 203 course administration x syllabus x 02 Model Of Computation x 008 example x 03 Algorithm Representat... x 04 Algorithm Analysis

```
Find Max ( Num ) {
```

```
    // Num.len
```

```
    max = Num[0]
```

```
    for ( curr = 1, curr ≤ Num.len, curr = curr + 1 ) {
```

```
        if ( Num[curr] > max ) {
```

```
            max = Num[curr]
```

```
        }
```

```
    }
```

```
    return max
```

```
}
```

- is Num sorted ?

- Linear search

- Go through array

- Keep track of

- largest element  
seen so far

- If you see a  
larger number later,  
change the largest  
number

Amit Chintamani Awekar

## Meeting chat



Amit Chintamani Awekar

Yesterday 9:57 am

Scheduled a meeting

Yesterday 10:10 am Meeting  
ended: 14s

Today



9:53 am Meeting started

+117

M

YS



PRANAV NAIR



Amit Chintamani Awekar



ANINDYA VIJAYVARG...

AV

ST

Type a new message



10:21 AM Fri 6 Aug

## 03 Algorithm Representation

x 203 course administration

x syllabus

x 02 Model Of Computation

x 008 example

x 03 Algorithm Representat...

x 04 Algorithm Analysis



```
Find Max ( Num ) {
```

```
    // Num.len
```

```
    max = Num[0]
```

```
    for (curr = 1, curr < Num.len, curr = curr + 1) {
```

```
        if (Num[curr] > max) {
```

```
            max = Num[curr]
```

```
        }
```

```
    }
```

```
    return max
```

```
}
```

- is Num sorted?

- Linear search

- Go through array

- Keep track of

- largest element  
seen so far

- If you see a  
larger number later,  
change the largest  
number

Amit Chintamani Awekar

+118



AV



Amit Chintamani Awekar



VATSAL GUPTA



RIPUDAMAN SINGH

ST

Type a new message



## Meeting chat



Amit Chintamani Awekar

Yesterday 9:57 am

Scheduled a meeting

Yesterday 10:10 am Meeting  
ended: 14s

Today



9:53 am Meeting started

31:02



Leave

10:24 AM Fri 6 Aug

### 03 Algorithm Representation



203 course administration syllabus 02 Model Of Computation 008 example 03 Algorithm Representat... 04 Algorithm Analysis



```
Find Max(Num) {  
    Sort(Num)  
    // sort in descending order  
    return (Num[0])  
}
```

Amit Chintamani Awekar

+117



VG



Amit Chintamani Awekar



RIPUDAMAN SINGH

AV

ANINDYA VIJAYVARGEEYA

ST

### Meeting chat

Amit Chintamani Awekar  
Yesterday 9:57 am

Scheduled a meeting

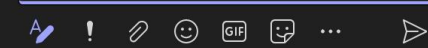
Yesterday 10:10 am Meeting  
ended: 14s

Today

9:53 am Meeting started

**B** *I* U ~~S~~ |

Type a new message





10:40 AM Fri 6 Aug

## 03 Algorithm Representation

x 203 course administration x syllabus x 02 Model Of Computation x 008 example x 03 Algorithm Representat... x 04 Algorithm Analysis



ArraySwap(A, B) {

    min = A.len

    if (B.len < min) {

        min = B.len

    for (curr = 0, curr < min, curr++) {

        // swap elements

        swap(A[curr], B[curr])

    }

}

• Minimum size of the two arrays

• Scan each element starting from element

• Swap elements

Do only till length of smaller array

A  
2  
5  
9  
7

B  
20  
10  
15

Amit Chintamani Awekar

## Meeting chat



Amit Chintamani Awekar

Yesterday 9:57 am

Scheduled a meeting



Yesterday 10:10 am Meeting ended: 14s

Today



9:53 am Meeting started

B I U S | V ...

Type a new message

+114

AV



VR



Amit Chintamani Awekar

PS

PATEL HETANG SANJ...

VG

VATSAL GUPTA

ST



10:48 AM Fri 6 Aug

## 03 Algorithm Representation

03 Algorithm Representat...

203 course administration

syllabus

02 Model Of Computation

008 example

03 Algorithm Representat...

04 Algorithm Analysis

```

ArraySwap(A, B) {
  ↪

```

```

    min = A.len

```

```

    if (B.len < min) {

```

```

        ↪ min = B.len
    }

```

```

    for (curr = 0, curr < min, curr++) {

```

```

        ↪ swap elements

```

```

        swap(A[curr], B[curr])
    }

```

```

}

```

```

}

```

curr = ~~0~~ ~~1~~ ~~2~~ 3  
min = ~~0~~ 3

- Minimum size of the two arrays

- Scan each element starting from element

- Swap elements

Do only till length of smaller array

A	B
<del>20</del>	<del>2</del>
<del>10</del>	<del>5</del>
<del>15</del>	<del>9</del>
7	

## Meeting chat



Amit Chintamani Awekar

Yesterday 9:57 am

Scheduled a meeting



Yesterday 10:10 am Meeting ended: 14s

Today



9:53 am Meeting started

B I U S | V ...

Type a new message

Amit Chintamani Awekar

+114

AV



VR



Amit Chintamani Awekar

PS

PATEL HETANG SANJ...

VG

VATSAL GUPTA

ST



58:21



Leave

10:52 AM Fri 6 Aug

## 04 Algorithm Analysis



203 course administration x syllabus x 02 Model Of Computation x 008 example x 03 Algorithm Representation x 04 Algorithm Analysis



## Resources

- Time
- I/O
- Network
- Cloud resources
- Human input

Amit Chintamani Awekar

## Meeting chat



Amit Chintamani Awekar

Yesterday 9:57 am

Scheduled a meeting



Yesterday 10:10 am Meeting ended: 14s

Today



9:53 am Meeting started

**B** *I* U ~~S~~ |

Type a new message



10:52 AM Fri 6 Aug

## 04 Algorithm Analysis

203 course administration x syllabus x 02 Model Of Computation x 008 example x 03 Algorithm Representation x 04 Algorithm Analysis

## Resources

- Time
- I/O
- Network
- Cloud resources
- Human input
- Physical
  - Fuel
  - Battery

Amit Chintamani Awekar

## Meeting chat



Amit Chintamani Awekar

Yesterday 9:57 am

Scheduled a meeting



Yesterday 10:10 am Meeting ended: 14s

Today



9:53 am Meeting started

**B** *I* U ~~S~~ |

Type a new message



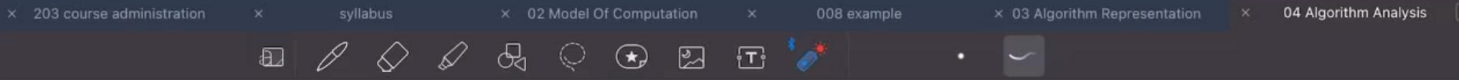
01:01:03



Leave

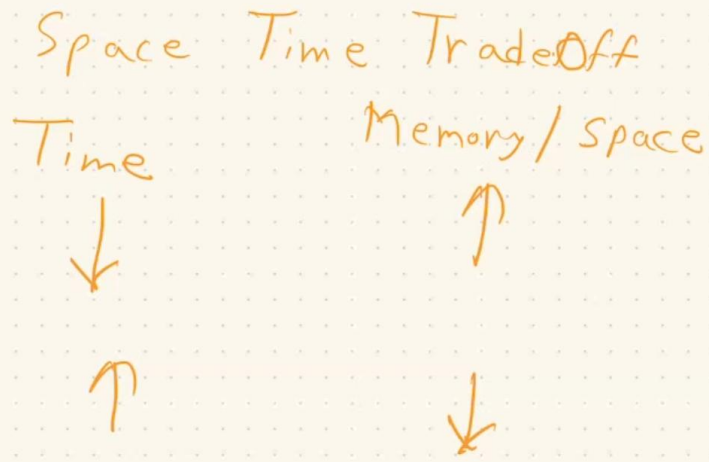
10:54 AM Fri 6 Aug

## 04 Algorithm Analysis



### Resources

- Time
- I/O
- Network
- Cloud resources
- Human input
- Physical
  - Fuel
  - Battery
- Memory



Amit Chintamani Awekar

### Meeting chat



Amit Chintamani Awekar  
Yesterday 9:57 am  
Scheduled a meeting



Yesterday 10:10 am Meeting  
ended: 14s



Today  
9:53 am Meeting started

**B** *I* U ~~S~~ |

Type a new message



+113

AV



VR



Amit Chintamani Awekar

PS

PATEL HETANG SANJ...

VG

VATSAL GUPTA

ST

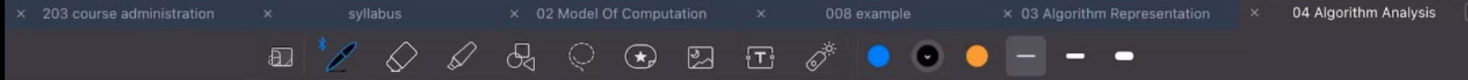
01:04:09



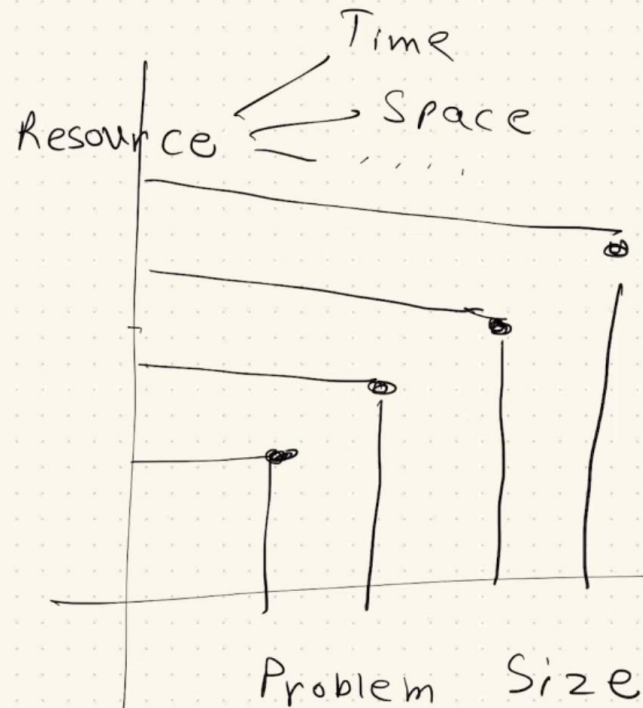
Leave

10:57 AM Fri 6 Aug

## 04 Algorithm Analysis



Problem size



Amit Chintamani Awekar

## Meeting chat



Amit Chintamani Awekar

Yesterday 9:57 am

Scheduled a meeting



Yesterday 10:10 am Meeting ended: 14s

Today



9:53 am Meeting started

**B** *I* U ~~S~~ |

Type a new message

