

Quick access

- Desktop
- Downloads
- Documents
- Pictures
- 19AD602
- Deep Learning
- unit 4
- Unit 4

OneDrive - Personal

This PC

- 3D Objects
- Desktop
- Documents
- Downloads
- Music
- Pictures
- Videos
- Local Disk (C:)
- aid-commonarea (\
- aid-commonarea (\
- Network

11 items



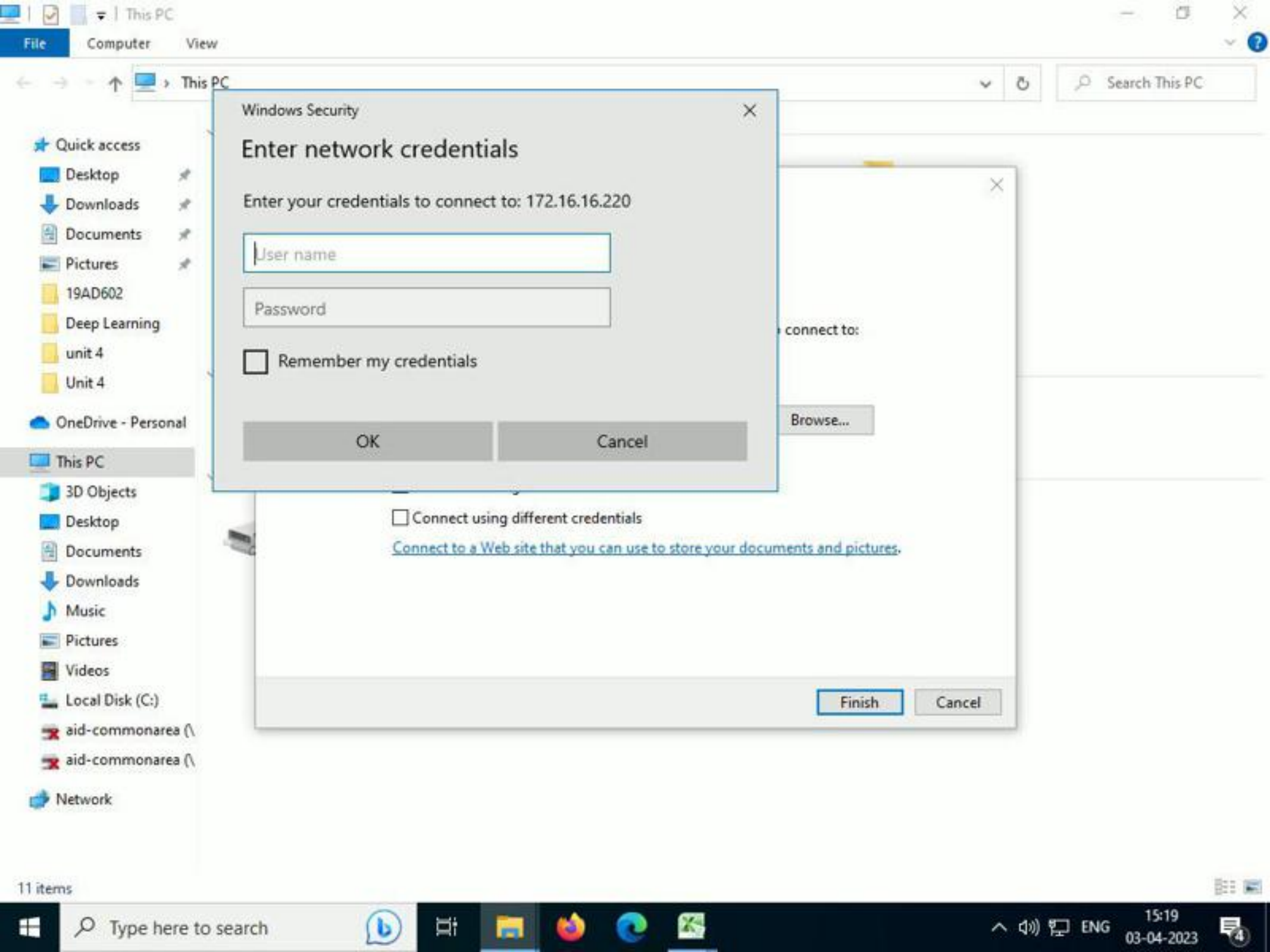
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ENG

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03-04-2023





Windows Security

Enter network credentials

Enter your credentials to connect to: 172.16.16.220

User name

Password

☐ Remember my credentials

OK

Cancel

☐ Connect using different credentials

[Connect to a Web site that you can use to store your documents and pictures.](#)

Finish

Cancel

11 items



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FileHomeShareViewDrive Tools

←→↑This PC > aid-commonarea (\\172.16.16.220) (X:) >

Search aid-common...

Quick access

Desktop

Downloads

Documents

Pictures

19AD602

Deep Learning

unit 4

Unit 4

OneDrive - Person

This PC

3D Objects

Desktop

Documents

Downloads

Music

Pictures

Videos

Local Disk (C:)

aid-commonare

aid-commonare

aid-commonare

Network

AICTE-STREAM

Name	Date modified	Type	Size
2020-2024 Batch STUDENT	06-01-2023 16:45	File folder	
2021-2025 Batch Students	08-12-2022 10:18	File folder	
AI Dept	22-07-2022 15:04	File folder	
AI&DS	22-02-2023 18:05	File folder	
Forms	23-10-2021 10:31	File folder	
Gynamitra'23	20-03-2023 11:01	File folder	
INTERNEL MARK	10-02-2023 11:11	File folder	
Jenefa	24-03-2023 09:14	File folder	
Mahes	07-10-2022 09:40	File folder	
Maheswaran	23-02-2023 17:11	File folder	
Muthulakshmi	31-03-2023 10:18	File folder	
Passport Documents	11-01-2023 10:45	File folder	
Prasika	22-03-2023 14:00	File folder	
QAM	04-12-2021 16:59	File folder	
Raj	29-03-2023 19:30	File folder	
Research Practice	29-03-2023 13:35	File folder	
Shenbagarajan	03-04-2023 11:56	File folder	
Swathika	20-03-2023 16:33	File folder	
Thendral	31-03-2023 10:57	File folder	
Vaccination Certificate	29-12-2021 11:57	File folder	
vigneshwaran	22-03-2023 16:53	File folder	
AIDS-BAD-R19	30-06-2021 15:10	Adobe Acrobat D...	2,582 KB
camera-aids	31-08-2021 09:19	Adobe Acrobat D...	452 KB
Consolidated parents list - AIDS	13-03-2023 13:59	Microsoft Word D...	16 KB
create_venue	30-09-2021 10:05	Microsoft Excel C...	1 KB
EEE-PED-R19	29-06-2022 17:50	Adobe Acrobat D...	1,504 KB
file labels	17-05-2022 12:54	Microsoft Word D...	18 KB
IMG_20220712_0001	12-07-2022 14:46	Adobe Acrobat D...	893 KB

36 items

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Jenefa

FileHomeShareView

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Search Jenefa

★ Quick access

Desktop

Downloads

Documents

Pictures

19AD602

Deep Learning

unit 4

Unit 4

OneDrive - Person

This PC

3D Objects

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Documents

Downloads

Music

Pictures

Videos

Local Disk (C:)

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aid-commonare

aid-commonare

Network

AICTE-STREAM

Name	Date modified	Type	Size
BOS	17-03-2023 18:10	File folder	
College Day	03-03-2023 16:48	File folder	
course	14-12-2022 09:25	File folder	
Department circular	21-06-2022 14:53	File folder	
Department details	19-03-2023 09:50	File folder	
Lab Equipment Details	14-02-2023 10:22	File folder	
Mepco Management Scholarship Details ...	15-10-2022 15:46	File folder	
nba	19-05-2022 15:00	File folder	
New IQAC	04-02-2023 11:49	File folder	
Parents Meeting_19-03-2023	19-03-2023 13:24	File folder	
Print	23-12-2022 16:58	File folder	
Profile	06-01-2023 14:49	File folder	
Python Lab Manual	26-07-2022 15:39	File folder	
Scanned_Copy	27-03-2023 11:39	File folder	
Startup	14-12-2022 09:28	File folder	
Subjects	09-02-2023 15:51	File folder	
Syllabus	09-03-2023 18:12	File folder	
To PDF	26-08-2022 12:58	File folder	
Vision,Mission_Board	09-11-2022 09:14	File folder	
workshop-2022	09-11-2022 11:08	File folder	
1sem failures	02-09-2021 12:09	Microsoft Word D...	15 KB
AI DS Dept Web content	12-01-2022 11:44	Microsoft Word 9...	10,411 KB
AI&DS Lab Facilities	21-10-2021 11:59	Microsoft Word D...	16 KB
Books Available Request	28-11-2022 17:13	Microsoft Word D...	23 KB
coe	05-10-2021 11:41	Adobe Acrobat D...	324 KB
fdp	05-01-2022 09:50	Adobe Acrobat D...	603 KB
file labels course file	19-05-2022 15:38	Microsoft Word D...	39 KB
Form for Management Scholarship Statis...	20-10-2021 10:17	Microsoft Excel 97...	110 KB

52 items

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FileHomeShareView

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This PC > aid-commonarea (\\172.16.16.220) (X:) > Jenefa > Subjects

Search Subjects

Quick access

DesktopDownloadsDocumentsPictures19AD602Deep Learningunit 4Unit 4

OneDrive - Person

This PC

3D ObjectsDesktopDocumentsDownloadsMusicPicturesVideos

Local Disk (C:)

aid-commonareaaid-commonareaaid-commonarea

Network

AICTE-STREAM

Name	Date modified	Type	Size
19AD301	15-12-2022 12:04	File folder	
19AD502	14-03-2023 12:14	File folder	
19AD552	03-04-2023 10:44	File folder	
19AD602	03-04-2023 15:14	File folder	
19AD652	03-04-2023 11:04	File folder	
19IT201	25-03-2023 13:52	File folder	
19IT251	25-03-2023 13:54	File folder	
19IT403	03-04-2023 13:32	File folder	
19ITA03	12-08-2022 16:31	File folder	
data-analysis-and-visualization-using-py...	12-12-2018 20:36	File folder	
OOPS NBA MARK ENTRY	09-02-2022 15:49	File folder	
Print	08-08-2022 17:26	File folder	
Section 15 - K-Nearest Neighbors (K-NN)	01-12-2021 12:49	File folder	
Section 19 - Decision Tree Classification	01-12-2021 12:49	File folder	
VAC	03-08-2022 12:16	File folder	
04ITTS0026_19AD301_Coaching_Att_Shee...	19-11-2021 17:01	Microsoft Word D...	15 KB
19IT201 -internal mark20-21	20-10-2021 14:51	Microsoft Excel W...	17 KB
19it201 INTERNAL	20-10-2021 14:50	Microsoft Word D...	32 KB
19IT251 - Question paper	21-10-2021 15:46	Microsoft Word D...	65 KB
19IT251 -internal mark20-21	20-10-2021 14:43	Microsoft Excel W...	26 KB
19IT251- Mark Split Arrear	10-11-2022 16:11	Microsoft Word 9...	31 KB
19IT251- Mark Split	14-07-2022 17:27	Microsoft Word 9...	97 KB
19IT251- viva	21-10-2021 17:30	Microsoft Word 9...	80 KB
22 12 21	22-12-2021 09:59	Adobe Acrobat D...	477 KB
AIDS-BAD-R19	30-06-2021 15:10	Adobe Acrobat D...	2,582 KB
Failure Analysis 2020 Batch	01-10-2021 16:24	Microsoft Word 9...	75 KB
Model Question paper_print	07-10-2021 17:07	Microsoft Word D...	63 KB
sample front page	24-12-2021 15:07	Microsoft Word 9...	82 KB

29 items

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19AD602

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Search 19AD602

★ Quick access

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Pictures

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Deep Learning

unit 4

Unit 4

OneDrive - Person

This PC

3D Objects

Desktop

Documents

Downloads

Music

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Local Disk (C:)

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Network

AICTE-STREAM

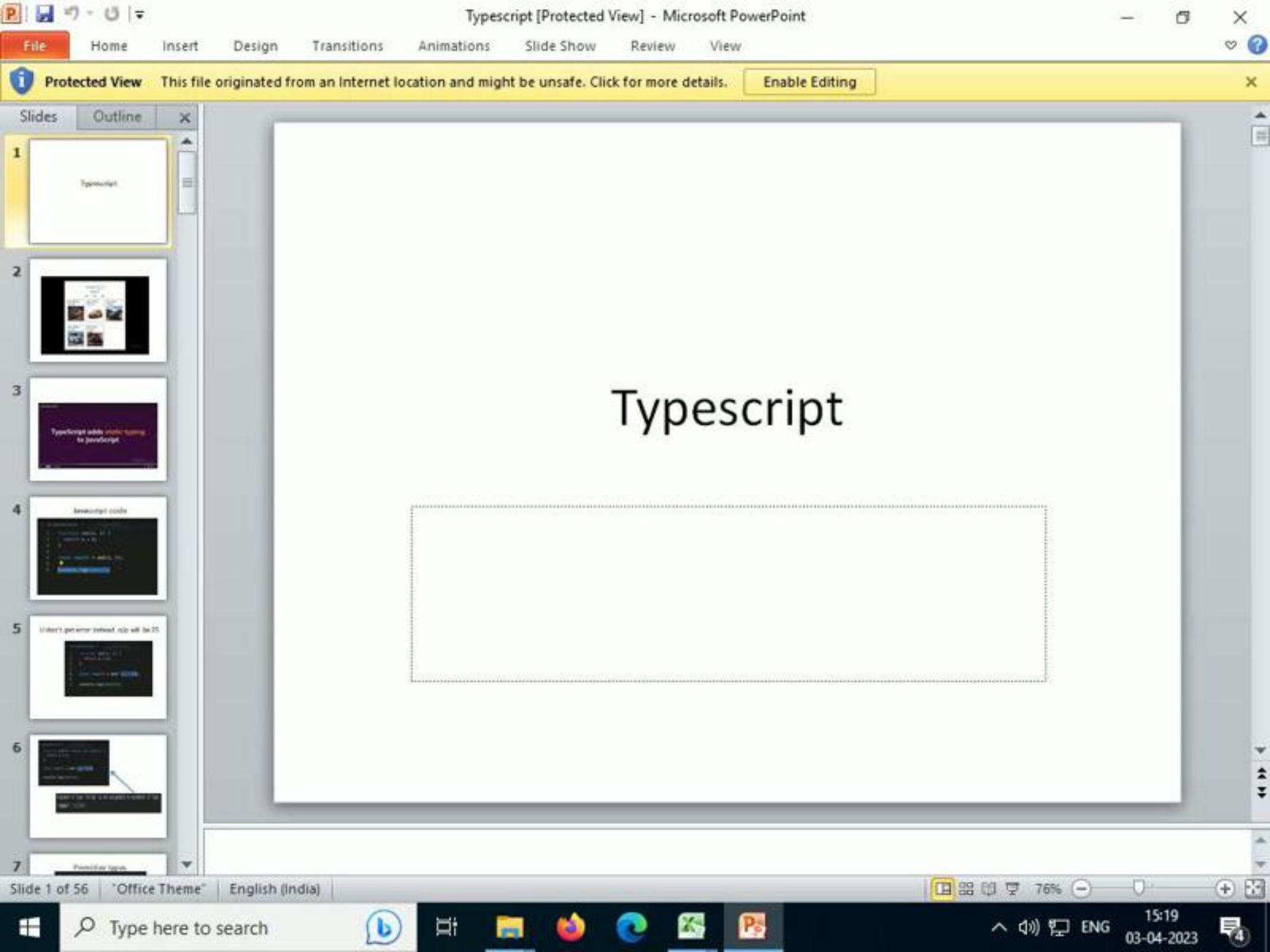
Name	Date modified	Type	Size
Typescript	03-04-2023 15:16	Microsoft PowerP...	2,268 KB
AID-UG-6-S1-CAT2-19AD602-Set2IMprov...	30-03-2023 09:24	Microsoft Word 9...	93 KB
Compiling TypeScript	28-03-2023 09:51	Microsoft Word D...	71 KB
assign1	28-03-2023 09:45	Microsoft Word D...	2,009 KB
AID-UG-6-S1-CAT2-19AD602-Set2	27-03-2023 17:47	Microsoft Word 9...	93 KB
React JS	27-03-2023 15:18	Microsoft PowerP...	1,184 KB
Typescript (1)	20-03-2023 16:50	Microsoft PowerP...	4,017 KB
typescript example (1)	20-03-2023 16:50	Microsoft Word D...	12 KB
Typescript code (2)	20-03-2023 16:50	Microsoft Word D...	17 KB
19AD602 - ISD 2023	16-03-2023 17:05	Microsoft Word D...	2,258 KB
19AD602 - FULL STACK DEVELOPMENT	15-03-2023 11:10	Microsoft Word D...	23 KB
nodejs_at_a_glance v1	09-03-2023 14:55	Microsoft PowerP...	1,270 KB
nodejs_at_a_glance	09-03-2023 11:59	Microsoft PowerP...	1,270 KB
AID-UG-6-S1-CAT2-19AD602-Set1	08-03-2023 18:29	Microsoft Word 9...	91 KB
Unit 2	06-03-2023 15:25	Microsoft PowerP...	278 KB
NodeJS	28-02-2023 17:52	Microsoft Word D...	25 KB
reactjs_tutorial	27-02-2023 18:00	Adobe Acrobat D...	2,838 KB
React-MIT	27-02-2023 17:59	Adobe Acrobat D...	578 KB
react-slides	27-02-2023 17:59	Adobe Acrobat D...	609 KB
slides react	27-02-2023 17:55	Microsoft PowerP...	1,689 KB
ReactJS	27-02-2023 17:51	Adobe Acrobat D...	182 KB
JavaScript Variables	07-02-2023 09:42	Microsoft Word D...	16 KB
TypeScript Quiz	01-02-2023 18:22	Microsoft Word D...	17 KB
style sheets	01-02-2023 18:09	Microsoft PowerP...	1,562 KB
Learning JavaScript	01-02-2023 18:07	Microsoft PowerP...	1,803 KB
client side programming	27-01-2023 17:57	Microsoft PowerP...	1,621 KB
HTML Element Reference	06-01-2023 18:03	Microsoft Word D...	36 KB
19AD652 - FULL STACK DEVELOPMENT L...	02-01-2023 14:32	Microsoft Word D...	21 KB

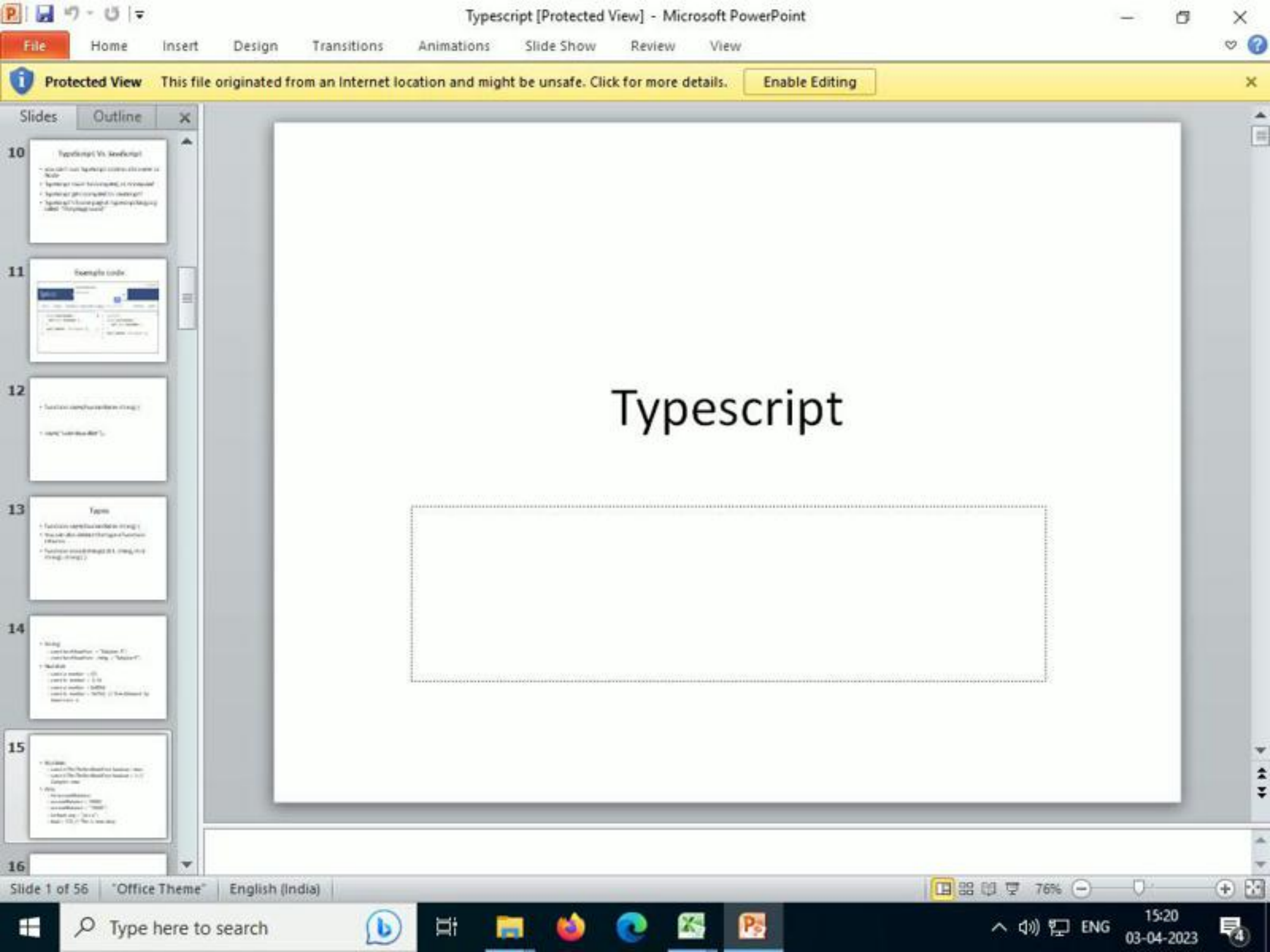
38 items

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Typescript [Protected View] - Microsoft PowerPoint

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SlidesOutline

10Typescript Vs. JavaScript

- JavaScript is a scripting language that runs in a browser.
- JavaScript is a client-side language, it runs in the browser.
- JavaScript is a high-level, interpreted, single-threaded language.
- JavaScript is a dynamic language, it does not have a static type system.

11Example code

```
function sayHi(humanName: string): string {  
    return `Hello, ${humanName}!`;  
}
```

12

```
function concatStrings(str1: string, str2: string): string {  
    return str1 + str2;  
}
```

13Types

- Function declaration with a return type
- You can also declare a function with a return type
- Function declaration with a return type and a parameter list

14

```
function sayHi(humanName: string): string {  
    return `Hello, ${humanName}!`;  
}
```

15

```
function concatStrings(str1: string, str2: string): string {  
    return str1 + str2;  
}
```

16

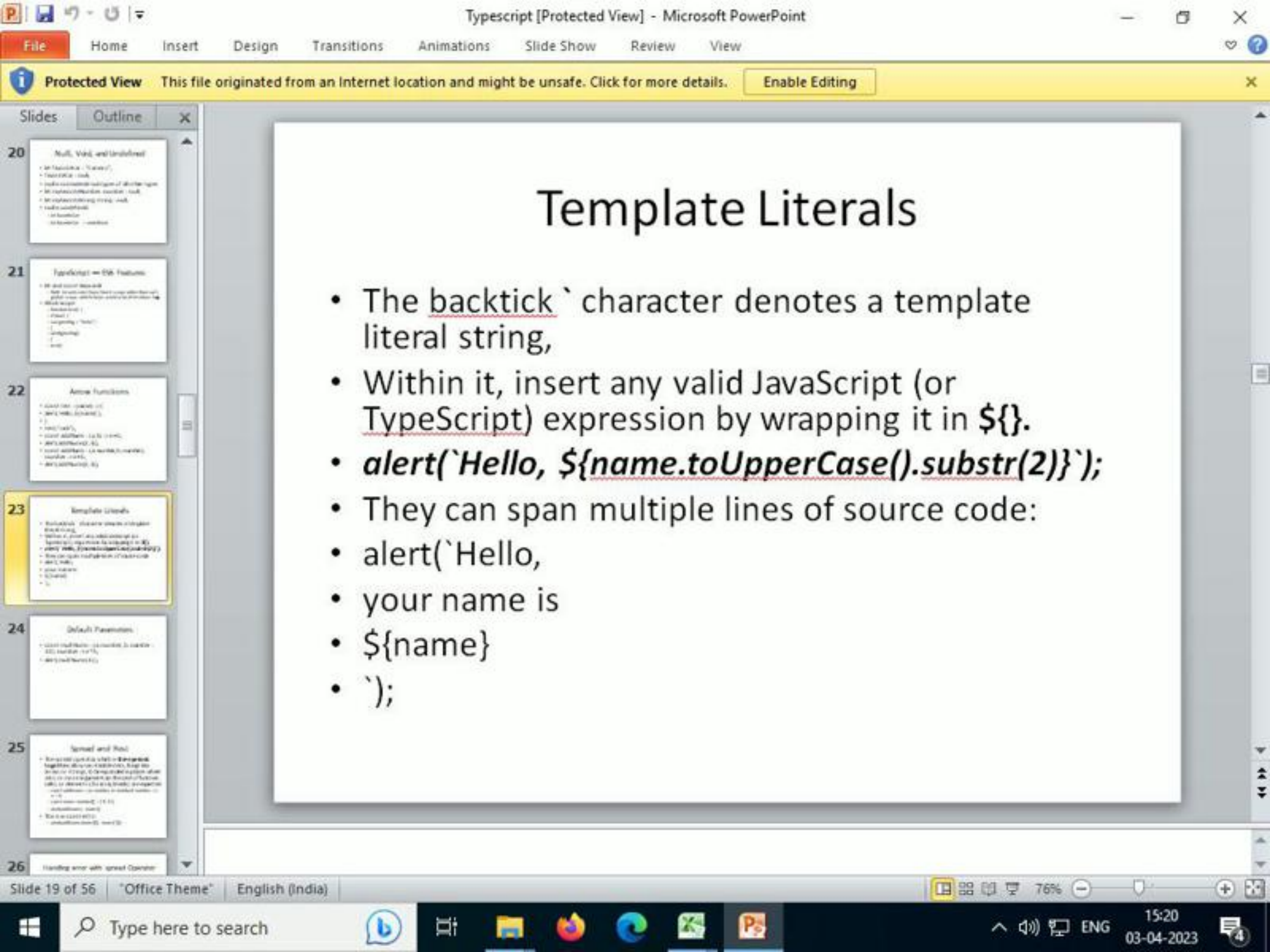
Types

- function sayHi(humanName: string) {
- You can also declare the type a function returns:
- function concatStrings(str1: string, str2: string): string { }

Slide 13 of 56Office ThemeEnglish (India)

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20 Null, Void, and Undefined

- An `undefined` value is returned when a variable has been declared but not assigned a value.
- An `undefined` value is also returned when a function does not return any value.
- An `undefined` value is also returned when a function is called without any arguments.

21 TypeScript - DOM Features

- DOM (Document Object Model) is a cross-platform, language-independent interface to HTML, XML, and SVG documents.
- It provides a structured representation of the document.
- It allows you to access and modify the document's structure, style, and content.

22 Arrow Functions

- Arrow functions are a concise way to write functions.
- They are used to write small, one-time-use functions.
- They are not used to define methods on objects.

23 Template Literals

- Template literals are a way to embed expressions inside a string.
- They are used to create multi-line strings and to interpolate values.
- They are used to create strings that are more readable and maintainable.

24 Default Parameters

- Default parameters are used to provide default values for function arguments.
- They are used to make functions more flexible and reusable.

25 Spread and Rest

- The spread operator (`...`) is used to spread an array or object into a new array or object.
- The rest operator (`...`) is used to gather remaining arguments into an array.

26 Handling error with spread Operator

Template Literals

- The backtick ``` character denotes a template literal string,
- Within it, insert any valid JavaScript (or TypeScript) expression by wrapping it in `${}`.
- ***`alert(`Hello, ${name.toUpperCase().substr(2)}`);`***
- They can span multiple lines of source code:
- `alert(`Hello,`
- `your name is`
- `${name}`
- ``);`

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Animations

Slide Show

Review

View

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Slides

Outline

31

Type Names

32

Functions and Types

33

Class

34

35

Classes

36

Member Visibility

37

Interfaces

Classes

• Properties:

– class Planet {

– name: string;

– mass: number;

– }

– constructor(inName: string, inMass: number) {

– this.name = inName;

– this.mass = inMass;

– }

– }

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Office Theme

English (India)

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Slides

Outline

33

Class

- In TypeScript, a class is used to define an object's structure and behavior.
- A class is a blueprint for creating objects. It defines the properties and methods that the objects will have.
- A class is a template for creating objects. It defines the properties and methods that the objects will have.

34

```
class Planet {
  name: string;
  mass: number;
  radius: number;
  constructor(name: string, mass: number, radius: number) {
    this.name = name;
    this.mass = mass;
    this.radius = radius;
  }
}
```

35

Class

```
class Planet {
  name: string;
  mass: number;
  radius: number;
  constructor(name: string, mass: number, radius: number) {
    this.name = name;
    this.mass = mass;
    this.radius = radius;
  }
}
```

36

Member Visibility

- TypeScript allows you to control the visibility of class members.
- You can use `public`, `private`, and `protected` to control the visibility of class members.
- `public` members can be accessed from anywhere.
- `private` members can only be accessed within the class.
- `protected` members can only be accessed within the class and its subclasses.

37

Inheritance

- Inheritance allows you to reuse code from a base class in a derived class.
- You can use `extends` to define a derived class that inherits from a base class.
- The derived class can override the methods and properties of the base class.
- The `super` keyword is used to access the base class's methods and properties.

38

Override members in the parent class

- You can override a method or property of a base class in a derived class.
- To override a method, you need to define a method with the same name and signature as the base class method.
- To override a property, you need to define a property with the same name and type as the base class property.
- The compiler will complain if you have a duplicate function.

39

Override members in the parent class

- add protected mass: number = 5555;
- to the Jupiter class
- In the Planet class:
 - `public calcSuperMass(): number {`
 - `return this.mass * 2;`
 - `}`
 - `public calcSuperMass(): string {`
 - `return "" + this.mass * 2;`
 - `}`
- The compiler will complain that you have a duplicate function

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```

+ from .difference import Difference
+
+ public val Difference() = Difference()
+
+ private def apply(x: T): T = {
+   public val Difference(x: T) = Difference(x)
+   x
+ }

```

[illegible]

1. `public class Test {`
 2. `public static void main (String[] args) {`
 3. `System.out.println("Hello World");`
 4. `}`
 5. `}`
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```

// Getters and Setters
// Getters
public double getSalary() {
    return salary;
}

// Setters
public void setSalary(double salary) {
    this.salary = salary;
}

// Main class
public static void main(String[] args) {
    // Create an instance of Employee
    Employee emp = new Employee("John", 50000);
    // Set the salary
    emp.setSalary(60000);
    // Print the salary
    System.out.println("Salary: " + emp.getSalary());
}

```

```

1  cout << endl; cout << "Enter the number of elements to be added to the array: ";
2  int n;
3  while (n < 1 || n > 10)
4  {
5      cout << "Invalid input! Please enter a number between 1 and 10: ";
6      continue;
7  }
8  int *arr = new int[n];
9  for (int i = 0; i < n; i++)
10 {
11     cout << "Enter element " << i << ": ";
12     int val;
13     while (val < -10 || val > 10)
14     {
15         cout << "Invalid input! Please enter a value between -10 and 10: ";
16         continue;
17     }
18     arr[i] = val;
19 }
20 for (int i = 0; i < n; i++)
21 {
22     cout << arr[i] << " ";
23     if (i % 10 == 9)
24         cout << endl;
25 }
26 cout << endl;

```

Static Members

- class Point {
- static double quarterCircleArea = 0.785;
- ...}
- class Circle {
- static double quarterCircleArea = 0.785;
- ...}

Robert Cavan

use a union type

- `public calcSuperMass(a: number | string):`
`number {`
- `if (typeof a === "number") {`
- `return this.mass * a;`
- `} else {`
- `return this.mass * parseInt(a);`
- `}`
- `}`

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44Static Members

- class Planet {
- static theBorgLiveHere: boolean = true;
- }
- alert(Planet.theBorgLiveHere); // true

45Abstract Class

- abstract class Planet {
- static theBorgLiveHere: boolean = true;
- static get theBorgLiveHere(): boolean {
- return true;
- }
- static set theBorgLiveHere(value: boolean): void {
- Planet.theBorgLiveHere = value;
- }

46ADVANCED THYSCRIPT

47Interface

- interface Planet {
- static theBorgLiveHere: boolean;
- static get theBorgLiveHere(): boolean;
- static set theBorgLiveHere(value: boolean): void;

48Creating an interface

- interface Planet {
- static theBorgLiveHere: boolean;
- static get theBorgLiveHere(): boolean;
- static set theBorgLiveHere(value: boolean): void;

49Define the interface

- interface Planet {
- static theBorgLiveHere: boolean;
- static get theBorgLiveHere(): boolean;
- static set theBorgLiveHere(value: boolean): void;

50

Static Members

- class Planet {
- static theBorgLiveHere: boolean = true;
- }
- alert(Planet.theBorgLiveHere); // true
- we can access the value of theBorgLiveHere without an instance of Planet being created first

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15:2003-04-2023



Static Members

- class Planet {
- static theBorgLiveHere: boolean = true;
- }
- alert(Planet.theBorgLiveHere); // true
- we can access the value of theBorgLiveHere without an instance of Planet being created first

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Static Members

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- we can access the value of *theBorgLiveHere* without an instance of Planet being created first

- make read-only properties by only supplying a getter.
- `class Planet {`
- `readonly name: string = "No name set";`
- `}`
- `let p: Planet = new Planet();`
- `alert(p.name); // Okay`
- `p.name = "Neptune"; // Error`

- Achieve overloading by using optional parameters or default parameters
 - `public calcSuperMass(massMultiple?: number): number {`
 - `if (massMultiple) {`
 - `return this.mass * massMultiple;`
 - `}`
 - `return this.mass * 2;`
 - `}`
 - `// Or:`
 - `public calcSuperMass(massMultiple: number = 2):`
`number {`
 - `return this.mass * massMultiple;`
 - `}`

use a union type

- `public calcSuperMass(a: number | string): number {`
- `if (typeof a === "number") {`
- `return this.mass * a;`
- `} else {`
- `return this.mass * parseInt(a);`
- `}`
- `}`

Static Members

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Abstract Classes

```
abstract class BasePlanet {  
  name: string;  
  radius: number;  
  constructor(inName: string, inRadius: number) {  
    this.name = inName;  
    this.radius = inRadius;  
  }  
  abstract collapseToBlackHole(inMoreMass: number): void;  
  calcDiameter() {  
    return this.radius * 2;  
  }  
}  
class Earth extends BasePlanet {  
  collapseToBlackHole(inAdditionalMass: number) {  
    // Perform physics-breaking 2001-like monolith magic here  
  }  
}
```

- An abstract class is simply one that cannot itself be instantiated. It is always meant to be a base class that others extend from.

Interfaces

- Interfaces offer a way to define “contracts” within your code or for code that must interface with your code to follow.
- **Argument/Object Interfaces**
- ```
function greet(person: any) {
```
- ```
  alert(`Hello, ${person.firstName}`);
```
- ```
}
```
- ```
const person = { firstName : "Frank" };
```
- ```
greet(person);
```
- Expected Output: alert “Hello, Frank”
- Alternate possible Output: “Hello, undefined”.// if person didn't have firstName property



## creating an interface:

- `function greet(person: { firstName: string }) {`
- `alert(`Hello, ${person.firstName}`);`
- `}`
- `const person = { name : "Frank" };`
- `greet(person);`

# Define the interface

- interface IPerson {
- firstName: string;
- };
- function greet(person: IPerson) {
- alert(`Hello, \${person.firstName}`);
- }
- function greetLouder(person: IPerson) {
- alert(`HELLO, \${person.firstName}!!!!`);
- }
- const person = { firstName : "Frank", hairColor : "Black" };
- greet(person);
- greetLouder(person);

- `function greet(person: IPerson) {`
- `alert(`Hello, ${person.firstName}`);`
- `}`
- `function greetLouder(person: IPerson) {`
- `alert(`HELLO, ${person.firstName}!!!!`);`
- `}`
- `greet({ firstName : "Frank", hairColor : "Black" });`
- `interface IPerson {`
- `firstName: string;`
- `age?: number;`
- `};`
- `function greet(person: IPerson) {`
- `alert(`Hello, ${person.firstName}`);`
- `}`
- `greet({ firstName : "Frank" }); // Okay`



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- `alert(`Hello, ${person.firstName}`);`
- `}`
- `greet({ firstName : "Frank" }); // Okay`



# Methods in Interfaces

- interface IPerson {
- firstName: string;
- getGreeting(lastName: string): string;
- };
- const person = {
- firstName : "Frank",
- getGreeting(lastName: string) {
- return `Hello, \${this.firstName} \${lastName}`;
- }
- };
- function greet(person: IPerson) {
- alert(person.getGreeting("Zammetti"));
- }
- greet(person);

- `function greet(person: IPerson) {`
- `alert(`Hello, ${person.firstName}`);`
- `}`
- `function greetLouder(person: IPerson) {`
- `alert(`HELLO, ${person.firstName}!!!!`);`
- `}`
- `greet({ firstName : "Frank", hairColor : "Black" });`
- `interface IPerson {`
- `firstName: string;`
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- `function greet(person: IPerson) {`
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- `}`
- `greet({ firstName : "Frank" }); // Okay`

# Methods in Interfaces

- interface IPerson {
- firstName: string;
- getGreeting(lastName: string): string;
- };
- const person = {
- firstName : "Frank",
- getGreeting(lastName: string) {
- return `Hello, \${this.firstName} \${lastName}`;
- }
- };
- function greet(person: IPerson) {
- alert(person.getGreeting("Zammetti"));
- }
- greet(person);