**WEB X Lab Exp 5**

K Suryanarayan Dora Vu4f2122034 Div: A Batch: B

**AIM**: Demonstrate Access Modifiers example using TypeScript.

**INPUT:**

class Animal {

public name: string;

private age: number;

protected sound: string;

constructor(name: string, age: number, sound: string) {

this.name = name;

this.age = age;

this.sound = sound;

}

public makeSound() {

console.log(`${this.name} makes a ${this.sound} sound.`);

}

private getAge(): number {

return this.age;

}

}

class Dog extends Animal {

constructor(name: string, age: number) {

super(name, age, 'bark');

console.log(`${this.name} is ${this.sound}ing.`);

}

public makeSound() {

console.log(`${this.name} barks loudly.`);

}

public showAge() {

// Error: Property 'age' is private and only accessible within class 'Animal'.

// console.log(`${this.name} is ${this.age} years old.`);

}

}

const animal = new Animal('Cat', 5, 'meow');

console.log(animal.name);

animal.makeSound();

const dog = new Dog('Buddy', 3);

dog.makeSound();

console.log(dog.name);

console.log(dog.age);

console.log(dog.sound);

**OUTPUT:**

[LOG]: "Cat"

[LOG]: "Cat makes a meow sound."

[LOG]: "Buddy is barking."

[LOG]: "Buddy barks loudly."

[LOG]: "Buddy"

Property 'age' is private and only accessible within class 'Animal'.

Property 'sound' is protected and only accessible within class 'Animal' and its subclasses.

'getAge' is declared but its value is never read.

**Conclusion**: Successfully Demonstrated Access Modifiers example using TypeScript.