**EXP-3.3:**

**Person Class Hierarchy with Student and Teacher Subclasses:**

// Base class

class Person {

constructor(name, age) {

this.name = name;

this.age = age;

}

introduce() {

return `Hi, I'm ${this.name} and I'm ${this.age} years old.`;

}

}

// Subclass: Student

class Student extends Person {

constructor(name, age, grade) {

super(name, age); // call parent constructor

this.grade = grade;

}

study() {

return `${this.name} is studying in grade ${this.grade}.`;

}

}

// Subclass: Teacher

class Teacher extends Person {

constructor(name, age, subject) {

super(name, age);

this.subject = subject;

}

teach() {

return `${this.name} is teaching ${this.subject}.`;

}

}

// Example usage

const student1 = new Student("Alice", 15, "10th");

const teacher1 = new Teacher("Mr. Smith", 40, "Mathematics");

console.log(student1.introduce()); // Hi, I'm Alice and I'm 15 years old.

console.log(student1.study()); // Alice is studying in grade 10th.

console.log(teacher1.introduce()); // Hi, I'm Mr. Smith and I'm 40 years old.

console.log(teacher1.teach()); // Mr. Smith is teaching Mathematics.

**OUTPUTS:**

