

Java Inheritance Assignments

Assignment 1: Person → Student

```
package Inheritance;

public class Person {
    String name;
    int age;
}

public class Student extends Person {
    int rollNo;

    public static void main(String[] args) {
        Student s = new Student();
        s.name = "Rahul";
        s.age = 20;
        s.rollNo = 101;

        System.out.println("Name: " + s.name);
        System.out.println("Age: " + s.age);
        System.out.println("Roll No: " + s.rollNo);
    }
}
```

Output:

```
Name: Rahul
Age: 20
Roll No: 101
```

Assignment 2: Vehicle → Car

```
package Inheritance;

public class Vehicle {
    int speed;
}

public class Car extends Vehicle {
    String brand;

    public static void main(String[] args) {
        Car c = new Car();
        c.speed = 120;
        c.brand = "Honda";

        System.out.println("Speed: " + c.speed);
        System.out.println("Brand: " + c.brand);
    }
}
```

Output:

```
Speed: 120
Brand: Honda
```

Assignment 3: Animal → Dog

```

package Inheritance;

public class Animal {
    void eat() {
        System.out.println("Animal is eating");
    }
}

public class Dog extends Animal {
    void bark() {
        System.out.println("Dog is barking");
    }

    public static void main(String[] args) {
        Dog d = new Dog();
        d.eat();
        d.bark();
    }
}

```

Output:

Animal is eating
Dog is barking

Assignment 4: Employee → Manager

```

package Inheritance;

public class Employee {
    double salary;
}

public class Manager extends Employee {
    double bonus;

    public static void main(String[] args) {
        Manager m = new Manager();
        m.salary = 40000;
        m.bonus = 10000;

        System.out.println("Total Salary: " + (m.salary + m.bonus));
    }
}

```

Output:

Total Salary: 50000.0

Assignment 5: Bank → SavingAccount

```

package Inheritance;

public class Bank {
    double interestRate = 5;
}

public class SavingAccount extends Bank {
    double calculateInterest(double amount) {
        return (amount * interestRate) / 100;
    }

    public static void main(String[] args) {

```

```
        SavingAccount sa = new SavingAccount();
        System.out.println("Interest: " + sa.calculateInterest(10000));
    }
}
```

Output:

Interest: 500.0

Assignment 6: Constructor Inheritance

```
package Inheritance;

public class Person {
    String name;

    Person(String name) {
        this.name = name;
    }
}

public class Student extends Person {
    int rollNo;

    Student(String name, int rollNo) {
        super(name);
        this.rollNo = rollNo;
    }

    public static void main(String[] args) {
        Student s = new Student("Anita", 201);
        System.out.println("Name: " + s.name);
        System.out.println("Roll No: " + s.rollNo);
    }
}
```

Output:

Name: Anita
Roll No: 201