

Lab 8 task 1.java

```
class BankAccount {

    public double getInterestRate(){
        return 0.05;
    }
}

class SavingsAccount extends BankAccount {

    public double getInterestRate (){
        return 0.10 ;
    }
}

public class AccountsCheck {
    public static void main(String[] args) {

        BankAccount ganeralAccount = new BankAccount();
        BankAccount savingAccount = new BankAccount();

        System.out.println("Bank Account interest rate is :
"+ganeralAccount.getInterestRate());
        System.out.println("Savings Account interest rate is :
"+savingAccount.getInterestRate());
    }

}
```

Lab 8 task 2.java

```
class Animal {
    String name;
    int age;

    Animal(String name, int age) {
        this.name = name;
        this.age = age;
    }

    void displayInfo() {
        System.out.println("Name: " + name + ", Age: " + age);
    }
}

class Dog extends Animal {

    Dog(String name, int age) {
        super(name, age);
    }
}

class Cat extends Animal {

    Cat(String name, int age) {
        super(name, age);
    }
}

class Cow extends Animal {
    Cow(String name , int age ){
        super(name, age);
    }
}

public class AnimalTest {
    public static void main(String[] args) {
        Dog dog = new Dog("Tommy", 4);
        Cat cat = new Cat("Mano", 2);
        Cow cow = new Cow("kawo", 15);

        System.out.println("Dog Info:");
        dog.displayInfo();

        System.out.println("Cat Info:");
        cat.displayInfo();
    }
}
```

```
        System.out.println("Cow Info");  
        cow.displayInfo();  
    }  
}
```

Lab 8 task 3.java

```
public class Employee {
    double baseSalary = 30000;

    public double calculateSalary() {
        return baseSalary;
    }
}

class Manager extends Employee {
    double bonus = 15000;

    public double calculateSalary() {
        return baseSalary + bonus;
    }
}

class Worker extends Employee {
    double hourlyRate = 100;
    int hoursWorked = 160;

    public double calculateSalary() {
        return hourlyRate * hoursWorked;
    }
}

class Main {
    public static void main(String[] args) {

        Employee e = new Employee();
        System.out.println("Employee Salary: " + e.calculateSalary());

        Employee m = new Manager();
        System.out.println("Manager Salary: " + m.calculateSalary());

        Employee w = new Worker();
        System.out.println("Worker Salary: " + w.calculateSalary());
    }
}
```

Lab 8 task 4.java

```
class Message {
    String text;

    public Message(String text) {
        this.text = text;
    }

    public String getText() {
        return text;
    }

    public String toString() {
        return text;
    }
}

class SMS extends Message {
    String recipientContactNo;

    public SMS(String recipientContactNo, String text) {
        super(text);
        this.recipientContactNo = recipientContactNo;
    }

    public String getRecipientContactNo() {
        return recipientContactNo;
    }

    public String toString() {
        return "To: " + recipientContactNo + "\nMessage: " + text;
    }
}

class Email extends Message {
    String sender;
    String receiver;
    String subject;

    public Email(String sender, String receiver, String subject, String text) {
        super(text);
        this.sender = sender;
        this.receiver = receiver;
        this.subject = subject;
    }

    public String getSender() {
        return sender;
    }

    public String getReceiver() {
        return receiver;
    }
}
```

```
    public String getSubject() {
        return subject;
    }

    public String toString() {
        return "From: " + sender + "\nTo: " + receiver + "\nSubject: " + subject +
"\nMessage: " + text;
    }
}

public class task1 {
    public static void main(String[] args) {
        SMS sms = new SMS("03116014199", "Hey, are you coming to the party tonight?");
        Email email = new Email("shahzai@example.com", "ilyas@example.com", "Weekend
Plans", "Let's go hiking this weekend.");

        System.out.println(sms.toString());
        System.out.println();
        System.out.println(email.toString());
    }
}
```

Lab 8 task 5.java

```
public class Animal {
    String name;
    int age;

    Animal(String name, int age) {
        this.name = name;
        this.age = age;
    }

    void display() {
        System.out.println("Name: " + name + ", Age: " + age);
    }
}

class Dog extends Animal {
    Dog(String name, int age) {
        super(name, age); // Call Animal constructor with name and age
    }
}

class Cat extends Animal {
    Cat(String name, int age) {
        super(name, age);
    }
}

public class Taste {
    public static void main(String[] args) {
        Dog dog = new Dog("Buddy", 3);
        Cat cat = new Cat("Whiskers", 2);

        dog.display();
        cat.display();
    }
}
```

Lab 8 task 6.java

```
import java.util.Scanner;
public class ternaryOperator {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("welcome to number checker");
        System.out.println("plz enter your number ");
        int num1 = sc.nextInt();
        System.out.println("enter the second number");
        int num2 = sc.nextInt();

        if (num1==num2) {
            System.out.println( num1+" absolute value is "+num2);
        }else{
            System.out.println(num1 + " is not absolute value of " + num2);
        }
        //System.out.println(num + " here is the minimum num ");
    }
}
```