Assignment- 11

Subject- Java SE Programming Lab

Submitted By: Submitted To:
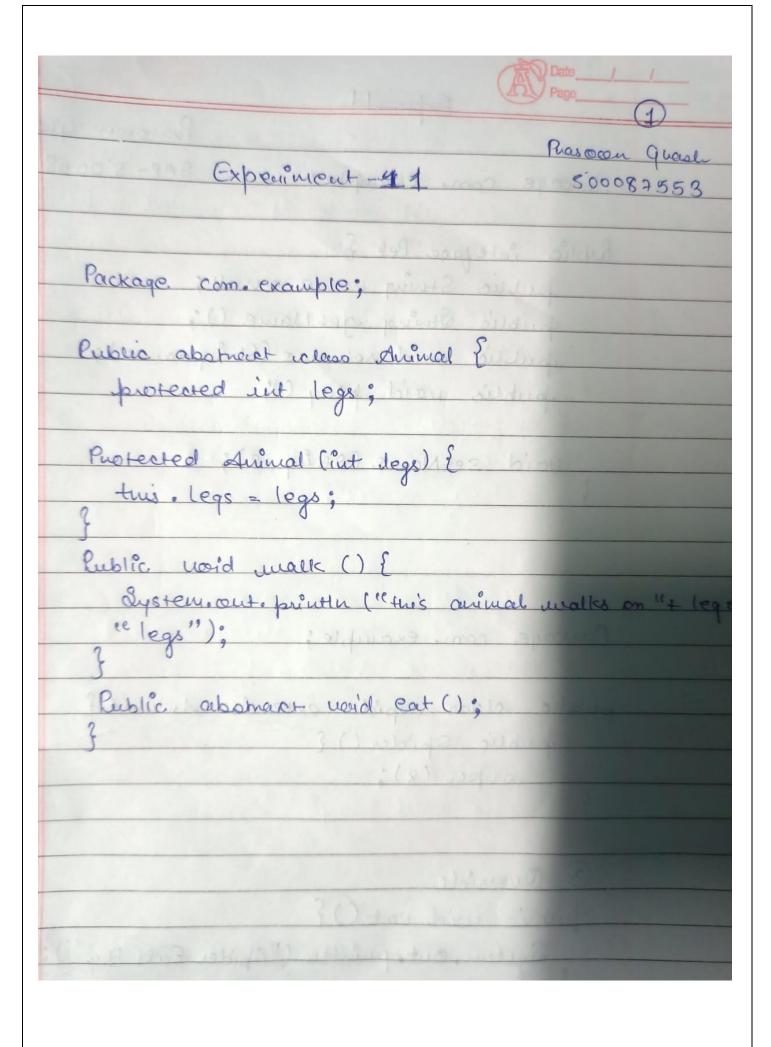
Prasoon Ghosh   Inder Singh Sir

BCA B.F.S.I

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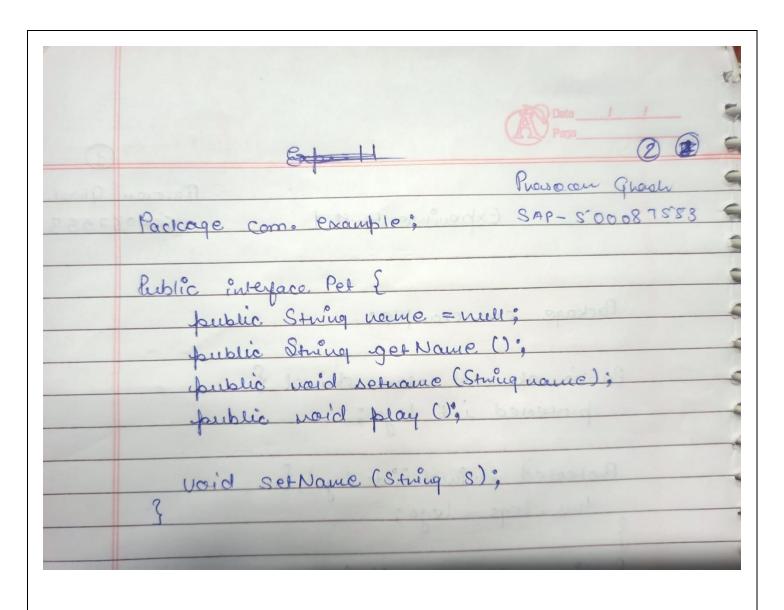Semester-4

SAP ID- 500087553

Roll No.- R201220011

Prasoon Quash
500087553

Experiment - 11

```java
Package com.example;

Public abstract class Animal {
    protected int legs;

    Protected Animal (int legs) {
        this.legs = legs;
    }

    Public void walk () {
        System.out.println ("this animal walks on " + legs +
        " legs");
    }

    Public abstract void eat ();
}
```

Prasoon Ghosh
SAP- 500087553

```java
Package com. example;

public interface Pet {
    public String name = null;
    public String getName ();
    public void setname (String name);
    public void play ();


    void setName (String s);
}
```

```java
Package com.example;

public class spider extends Animal {
    public Spider() {
        super(8);
    }

    @Override
    public void eat() {
        System.out.println("Spider Eats Fly");
    }
}
```

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```java
Package com.example;

Public class Cat extends Animal implements Pet {
    Public string name;
    Public Cat (String name) {
        Super (4);
        this.name = name;
    }


Public Cat () {
    this ("Prasoon");
}

    @Override
    public void eat () {

    }


    @Override
    public string getName () {
        return null;
    }

    @Override
    public void setname (String name) {

    }

    @Override
    public void setName (String s) {
```

```java
Package com.example;
                                                    Pet {
Public class fish extends Animal implements
    String name;

    protected fish() {
        super(0);
    }

    @Override
    public String getName() {
        return name;
    }

    @Override
    public void setname (String name) {
        this.name = name;
    }

    @Override
    public void play() {
    }

    @Override
    public void setName (String s) {

    }

    @Override
    public void eat() {
    }
```

```java
package com.example;

public class PetMain {
    public static void play withAnimal (Animal a){
    if (a instanceof Pet) {
        Pet p = (Pet)a;
        p. play ();
    } else {
        System. out. println ("Danger!, wild Animal");
    }
}

public static void main (String [] args) {
    Animal a;
    Spider s = new spider ();
    s. eat ();
    s. walk ();
    a = new spider ();
    a. eat ();
    a. walk ();
    System. out. println ("_____");
    System. out. println ();


    Pet p;
    Cat c = new Cat ("Tom");
    c. eat ();
    c. walk ();
    c. play ();
    a = new Cat ();
    a. eat ();
```

```
        a. walk();
    System.out.println("_____");
    System.out.println();

    Fish f = new fish();
    f.setName("Rohu");
    f.eat();
    f.walk();
    f.play();
    a = new Fish();
    a.eat();
    a.walk();

    Play with Animal(s);
    Play with Animal(c);
    Play with Animal(f);
    }
}
```

```
"D:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:D:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=53666:D:\Program Fi
Spider Eats Fly.
this animal walks on8legs
Spider Eats Fly.
this animal walks on8legs
-------------

this animal walks on4legs
this animal walks on4legs
-------------

this animal walks on0legs
this animal walks on0legs
Danger! Wild Animal

Process finished with exit code 0
```