**Question No:1**

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import java.util.\*;

class Dinosaur

{

private String species;

private String locomotiontype;

public Dinosaur(String species,String land)

{

this.species=species;

this.locomotiontype=land;

}

public void display()

{

System.out.println("Dino details");

System.out.println("Species "+species);

if(locomotiontype.equals("Land"))

{

System.out.println("Travels by land");

}else

{

System.out.println("Travels by Air");

}

}

}

class LavaDino extends Dinosaur

{

private String heat;

public LavaDino(String species,String land,String heat)

{

super(species,land);

this.heat=heat;

}

public void heatResistence()

{

if(heat.equals("Yes"))

{

System.out.println("Lives on underground");

}else

{

System.out.println("Did not survive");

}

}

}

public class Main

{

public static void main(String[] args) {

Scanner s=new Scanner(System.in);

System.out.println("Enter species: ");

String species=s.nextLine();

System.out.println("Enter type: ");

String land=s.nextLine();

System.out.println("Is it heat resistant? :");

String heat=s.next();

LavaDino dino=new LavaDino(species,land,heat);

dino.display();

dino.heatResistence();

}

}

**Sample Input and Output 1:**

Enter species: T-Rex

Enter type: Land

Is it heat resistant? No

Dino Details

Species: T-Rex

Travels by land

Did not survive

**Sample Input and Output 2:**

Enter species: Pterodactyl

Enter type: Air

Is it heat resistant? Yes

Dino Details

Species: Pterodactyl

Travels by air

Lives on underground

**Question No:2**

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import java.util.\*;

class LavaDino

{

private String species;

private String locomotionType;

int speed;

public LavaDino(String species,String type,int speed)

{

this.species=species;

this.locomotionType=type;

this.speed=speed;

}

public void displayDino()

{

System.out.println("Dino Details");

System.out.println("Species: "+species);

}

}

class AirLavaDino extends LavaDino

{

private int numberofwings;

private float speedperwing;

private float ashresistence;

public AirLavaDino(String species,String type,int speed,int wings,float speedperwing,float ashresistence)

{

super(species,type,speed);

this.numberofwings=wings;

this.speedperwing=speedperwing;

this.ashresistence=ashresistence;

}

public void displaySpeed()

{

System.out.println("Travels by air at a speed of "+(speed+(numberofwings\*speedperwing)-ashresistence));

}

}

class WateLavaDino extends LavaDino

{

private int numberoffins;

private float numberoftails;

private float lavamultiplier;

public WateLavaDino(String species,String type,int speed,int numberoffins,float numberoftails,float lavamultiplier)

{

super(species,type,speed);

this.numberoffins=numberoffins;

this.numberoftails=numberoftails;

this.lavamultiplier=lavamultiplier;

}

public void displaySpeed()

{

System.out.println("Travels by water at a speed of "+(speed+(numberoffins+numberoftails)\*lavamultiplier));

}

}

class LandLavaDino extends LavaDino

{

private int numberoflegs;

public LandLavaDino(String species,String type,int speed,int numberoflegs)

{

super(species,type,speed);

this.numberoflegs=numberoflegs;

}

public void displaySpeed()

{

System.out.println("Travels by land at a speed of "+(speed\*numberoflegs));

}

}

public class Main

{

public static void main(String[] args) {

Scanner s=new Scanner(System.in);

System.out.println("1. Land Dino");

System.out.println("2. Aqua Dino");

System.out.println("3. Aerial Dino");

String species,type;

int speed,wings,numberoflegs;

float speedperwing,ashresistence;

int numberoffins;

float numberoftails;

float lavamultiplier;

int choice=s.nextInt();

switch(choice)

{

case 1:

System.out.println("Enter species: ");

species=s.next();

System.out.println("Enter Type: ");

type=s.next();

System.out.println("Enter speed: ");

speed=s.nextInt();

System.out.println("Enter number of feets: ");

numberoflegs=s.nextInt();

LandLavaDino land1=new LandLavaDino(species,type,speed,numberoflegs);

land1.displayDino();

land1.displaySpeed();

break;

case 2:

System.out.println("Enter species: ");

species=s.next();

System.out.println("Enter Type: ");

type=s.next();

System.out.println("Enter speed: ");

speed=s.nextInt();

System.out.println("Enter no. of fins: ");

numberoffins=s.nextInt();

System.out.println("Enter no. of tails: ");

numberoftails=s.nextFloat();

System.out.println("Enter lava multiplier: ");

lavamultiplier=s.nextFloat();

WateLavaDino water=new WateLavaDino(species,type,speed,numberoffins,numberoftails,lavamultiplier);

water.displayDino();

water.displaySpeed();

break;

case 3:

System.out.println("Enter species: ");

species=s.next();

System.out.println("Enter Type: ");

type=s.next();

System.out.println("Enter speed: ");

speed=s.nextInt();

System.out.println("Enter no. of wings: ");

wings=s.nextInt();

System.out.println("Enter speed/wing: ");

speedperwing=s.nextFloat();

System.out.println("Enter ash resistance: ");

ashresistence=s.nextFloat();

AirLavaDino air=new AirLavaDino(species,type,speed,wings,speedperwing,ashresistence);

air.displayDino();

air.displaySpeed();

break;

}

}

}