

```

class Mammal {
    private int age;
    private double weight;

    Mammal(float weight, int age) {
        this.age = age;
        this.weight = weight;
    }

    public float getWeight(){
        return weight;
    }

    public int getAge() {
        return age;
    }
}

```

Client and Questions

- Write a client class called Lab4.java
- Create an object of class Student called alex whose major in CS, gpa is 3.4, credit hours 54, height is 170cm, weight is 150 pounds and age is 18
- Create an object of class Doctor called jack whose speciality is Dermatology, years = 4, height is 173 cm, weight is 179 pounds and age is 40.
- Print out the student's major, gpa, year and age.
- Print out the doctor's speciality, height, weight, and salary

What will be the output after you execute the following statements ? Explain your answer.

```
Mammal man1 = jack; System.out.println((Man1).getSalary());
```

What will be the output after you execute the following statements? Explain your answer.

```
Human hum1 = alex; System.out.println(Hum1.getHeight());
```

What will be the output after you execute the following statements? Explain your answer.

```
Mammal man1 = jack; System.out.println(man1.getWeight());
```

What will be the output after you execute the following statements? Explain your answer.

```
Mammal man1 = jack; System.out.println((Human)man1.getHeight());
```

Human:

```

Fields:
- height (double)
Methods:
- getHeight: returns height

```

Student:

```

Fields:
- major (String)
- gpa(double)
- creditHours(int)

Methods:
- getMajor: return major
- getGPA: return GPA
- getYear: return freshman, sophomore ... etc depending on number of creditHours

```

```
* Freshman: less than 32 hours
* Sophomore: At least 32 hours but less than 64
* Junior: At least Sophomore credit hours but less than 96
* Senior: At least 96 credit Hours
```

Doctor:

```
Fields:
- years(int)
- Speciality(String)

Methods:
- getYears: returns years
- getSpeciality: return speciality
- getSalary: calculates salary. base salary = 40000 if 1 year.
  and every additional year adds 5000 dollars
```