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// Admission Number 137603

// Object Oriented Programming

// Lab Assignment 4a

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import java.text.SimpleDateFormat;

import java.util.Date;

interface Span {

Float getLifeSpan();

}

abstract class Person

{

public String name;

public String gender;

public Integer dob;

// behavior or method

final Integer getAge(){

// validate inputs ...

Date date = new Date();

SimpleDateFormat formatter = new SimpleDateFormat("yyyyMMdd");

int d1 = dob;

int d2 = Integer.parseInt(formatter.format(date));

int age = (d2 - d1) / 10000;

return age;

}

public abstract Double processLoan(Integer n1);

}

class Student extends Person implements Span {

private String regNo;

private Integer noCourse;

public static void main (String[]args)

{

Student myFun = new Student("Person1","Male",20000527,"xyz",5);

System.out.println ( myFun.processLoan( myFun.getAge()));

System.out.println ( myFun.getLifeSpan());

}

public Student (String name\_, String gender\_, Integer dob\_, String regNo\_, Integer course\_) {

this.name=name\_;

this.gender=gender\_;

this.dob=dob\_;

this.regNo=regNo\_;

this.noCourse=course\_;

}

public Float getLifeSpan(){

Float years = ((Float) (noCourse\*3f) / 12f);

return years;

}

public Double processLoan(Integer age){

if (age < 10)

{

return 1000.0;

}

else if (age < 18)

{

return 10000.0;

}

else if (age < 24)

{

return 100000.0;

}

else{

return 0.0;

}

}

}