

Forum:[Hack Forums](#)

Thread: [simple program yet not so simple to me](#)

shellbullet101 - March 20, 2014, 10:09 pm

Ok I'm a beginner in java ive just started two weeks ago I am stuck on a particular problem and I would appreciate it if anyone could help me. I'm not asking for anyone to do it for me...just a guide in the right direction. Here is the program instructions

. Create an Employee class with following attributes / variables:

name
age
department

3. Create a class called Department which will contain a list of employees.

a) Department class will have a method which will return its employees ordered by age.

b) The value of department should be called Accounting

4. Create a static method in a separate class called PrimeAgeChecker to check if an employee's age is prime number or not. This method should be able to accept an employee object as an argument to do the check.

5. Create a class called Company which will contain a list of departments. Create a main method in this class to load the following departments and corresponding employee information into the company:

Department Name	Age
Accounting Bill	55
Accounting Todd	45

Print out departments, employee names, ages and if age is prime number for each employee in the company using the method in PrimeAgeChecker class. When you print out Accounting and Information Systems departments, make sure they are printed in ascending order by employee age using the method you created in step 2a.

And this is what I have so far

<http://postimg.org/image/xoth5bgxs/>

Thanks to anyone willing to help a beginner.

I Eat Pixels - March 21, 2014, 1:07 am

Are these the exact instructions provided to you?

Feminist - March 21, 2014, 2:04 am

So exactly what are you having trouble with? Sorting employee's by age, ??

shellbullet101 - March 21, 2014, 3:38 am

(Mar 21, 2014 01:07 AM)I Eat Pixels Wrote: [\[CITE\]](#) Are these the exact instructions provided to you? Yes, these are the exact instructions. Minus the end part where it asks for information department

too, that part isn't needed.

(Mar 21, 2014 02:04 AM)Feminist Wrote: [\[CITE\]](#) So exactly what are you having trouble with?
Sorting employee's by age, ??

Yes, how the end result outcome should look like. I appreciate you guys for responding.

I Eat Pixels - March 21, 2014, 11:11 am

(Mar 20, 2014 10:09 PM)shellbullet101 Wrote: [\[CITE\]](#) b) The value of department should be called Accounting

This does not make any sense to me. Why have a department variable if it is always called Accounting?

There is a lot of cleaning up to do, but this rough code should help you out.

Company

Code import java.util.*;

```
public class Company{
    ArrayList<Department> departmentList = new ArrayList<Department>();

    public Department checkDepartment(String name){
        for(Department dep: departmentList){
            if(dep.getName().equals(name)){//Department already exists
                return dep;
            }
        }
        Department d = new Department(name);
        departmentList.add(d);//Add to list
        return d;
    }

    public static void main(String[] args){
        Scanner in = new Scanner(System.in);
        Company c = new Company();
        String input = in.nextLine();
        while(in.hasNextLine() && input.length() != 0){
            String[] inputArray = input.split(" ");//Split input into array
            Department d = c.checkDepartment(inputArray[0]);
            d.newEmployee(Integer.parseInt(inputArray[2]), inputArray[1], d);//May want to handle errors
            input = in.nextLine();
        }
        for(Department dep:c.departmentList){//Prints all the employees in the departmentList
            ArrayList<Employee> empList = dep.getEmployees();
            for(Employee emp: empList){
                emp.printInfo();
            }
        }
    }
}

Department
Code import java.util.*;
```

```
public class Department{
    ArrayList<Employee> employeeList = new ArrayList<Employee>();
```

String department;

```
public Department(String a){
    this.department = a;
}
```

```
public void newEmployee(int age, String name, Department department){
    Employee e = new Employee(age, name, department);
    this.employeeList.add(e);
}
```

```
public String getName(){
    return department;
}
```

```
public ArrayList<Employee> getEmployees(){
    Collections.sort(employeeList, new Comparator<Employee>(){
        @Override
        public int compare(Employee e1, Employee e2){
            final int age1 = e1.getAge();
            final int age2 = e2.getAge();
            return age1 < age2 ? -1 : age1 > age2 ? 1 : 0; //Sort youngest -> oldest
        }
    });
    return employeeList;
}
}
```

Employee

```
Code public class Employee {
    String name;
    int age;
    Department department;
```

```
public Employee(int age, String name, Department department){
    this.age = age;
    this.name = name;
    this.department = department;
}
```

```
int getAge(){
    return age;
}
```

```
public void printInfo(){
    primeHelper p = new primeHelper();
    System.out.println("Name: " + name + " Age: " + age + " Dep: " + department.getName() +
        " Prime: " + p.PrimeAgeChecker(age));
}
}
```

primeHelper

```
Code import java.math.*;
```

```
public class primeHelper{
```

```

public boolean PrimeAgeChecker(int age){
    BigInteger bi = new BigInteger(String.valueOf(age));
    boolean prime = bi.isProbablePrime(10);
    return prime;
}
}

```

Input:

A bob 88
 A Jim 87
 A Tom 7
 IT Bitch 19
 IT Thomas 27
 IT Timbo 77

Output:

Name: Tom Age: 7 Dep: A Prime: true
 Name: Jim Age: 87 Dep: A Prime: false
 Name: bob Age: 88 Dep: A Prime: false
 Name: Bitch Age: 19 Dep: IT Prime: true
 Name: Thomas Age: 27 Dep: IT Prime: false
 Name: Timbo Age: 77 Dep: IT Prime: false

GunzPk - March 21, 2014, 2:56 pm

Was bored and ended up programming it for you. I didn't realize that I Eat Pixels already did it for you until after I programmed it. Anyways, heres the code:

PHP Code

```

<?php
package net.hackforums;

/**
 * @author GunzPk
 * @version 1.0
 */
public class Company {

    /**
     * The starting point of the application.
     *
     * @param args The command-line arguments.
     */
    public static void main(String[] args) {
        Department department = new Department();
        department.sortEmployees();
        department.getEmployees();
    }

}

```

PHP Code

```

<?php
package net.hackforums;

```

```

/**
 * @author GunzPk
 * @version 1.0
 */
public class Department {

    /**
     * Contains & initializes all of the employee objects.
     */
    private Employee[] employee = {
        new Employee("Accounting", "Joyce", 65),
        new Employee("Accounting", "Jake", 32),
        new Employee("Accounting", "Henry", 54),
        new Employee("Accounting", "Chris", 20),
        new Employee("Accounting", "Amy", 73)
    };

    /**
     * Sorts out all of the employee's information in the employee object.
     */
    public void sortEmployees() {
        String tempDepartment;
        String tempName;
        int tempAge;

        boolean isSorting = true;

        while (isSorting) {
            isSorting = false;

            for (int i = 0; i < employee.length - 1; i++) {
                if (employee[i].getAge() < employee[i + 1].getAge()) {
                    tempDepartment = employee[i].getDepartment();
                    tempName = employee[i].getName();
                    tempAge = employee[i].getAge();

                    employee[i].setDepartment(employee[i + 1].getDepartment());
                    employee[i].setName(employee[i + 1].getName());
                    employee[i].setAge(employee[i + 1].getAge());

                    employee[i + 1].setDepartment(tempDepartment);
                    employee[i + 1].setName(tempName);
                    employee[i + 1].setAge(tempAge);

                    isSorting = true;
                }
            }
        }
    }

    /**
     * Prints out all of the employees information.
     */

```

```

public void getEmployees() {
    for (int i = 0; i < employee.length; i++) {
        System.out.println(employee[i].toString());
    }
}
}
}

```

PHP Code

```

<?php
package net.hackforums;

/**
 * @author GunzPk
 * @version 1.0
 */
public class Employee {

    /**
     * The employee's department.
     */
    private String department;

    /**
     * The employee's name.
     */
    private String name;

    /**
     * The employee's age.
     */
    private int age;

    /**
     * The Employee constructor. Assigns all the necessary variables with the
     * given parameters.
     *
     * @param department The employee's department.
     * @param name The employee's name.
     * @param age The employee's age.
     */
    public Employee(String department, String name, int age) {
        this.setDepartment(department);
        this.setName(name);
        this.setAge(age);
    }

    /**
     * Sets the department variable with the given parameter.
     *
     * @param department The department of the employee.
     */
    public void setDepartment(String department) {
        this.department = department;
    }
}

```

```

}

/**
 * Sets the name variable with the given parameter.
 *
 * @param name The name of the employee.
 */
public void setName(String name) {
    this.name = name;
}

/**
 * Sets the age variable with the given parameter.
 *
 * @param age The age of the employee.
 */
public void setAge(int age) {
    this.age = age;
}

/**
 * Gets the employee's department.
 *
 * @return The employee's department.
 */
public String getDepartment() {
    return this.department;
}

/**
 * Gets the employee's name.
 *
 * @return The employee's name.
 */
public String getName() {
    return this.name;
}

/**
 * Gets the employee's age.
 *
 * @return The employee's age.
 */
public int getAge() {
    return this.age;
}

/**
 * Returns the employee's information.
 */
@Override
public String toString() {
    return this.getDepartment() + " - " + this.getName() + " " + this.getAge() + " " +

```

```
PrimeAgeChecker.isPrimeNumber(this);
```

```
    }  
}
```

PHP Code

```
<?php  
package net.hackforums;  
  
/**  
 * @author GunzPk  
 * @version 1.0  
 */  
public class PrimeAgeChecker {  
  
    /**  
     * Returns whether or not the employee's age is a prime number.  
     *  
     * @param employee The employee object which holds their department, name, and age.  
     * @return Whether or not the employee's age is a prime number.  
     */  
    public static boolean isPrimeNumber(Employee employee) {  
  
        if (employee.getAge() % 2 == 0) {  
            return false;  
        }  
  
        for (int i = 3; i * i <= employee.getAge(); i += 2) {  
            if (employee.getAge() % i == 0) {  
                return false;  
            }  
        }  
        return true;  
    }  
}
```

output:

PHP Code

```
<?php  
Accounting - Amy 73 true  
Accounting - Joyce 65 false  
Accounting - Henry 54 false  
Accounting - Jake 32 false  
Accounting - Chris 20 false
```

Heres a download link if you'd rather download the project folder:

<http://uppit.com/ivys6f37wt84/Program.rar>

shellbullet101 - March 21, 2014, 4:23 pm

Thanks a lot to everyone who helped I now understand the code a lot better than before by seeing the end result of it thanks a bunch.

reasondefies - April 27, 2014, 7:41 pm

I have a followup question to this if the thread contributors are still active - what if the value of Department should be only one of a list of values, rather than always being "Accounting"?

GunzPk - April 29, 2014, 6:41 pm

(Apr 27, 2014 07:41 PM)reasondefies Wrote: [\[CITE\]](#) I have a followup question to this if the thread contributors are still active - what if the value of Department should be only one of a list of values, rather than always being "Accounting"?

Quote: private Employee[] employee = {
 new Employee("Accounting", "Joyce", 65),
 new Employee("Accounting", "Jake", 32),
 new Employee("Accounting", "Henry", 54),
 new Employee("Accounting", "Chris", 20),
 new Employee("Accounting", "Amy", 73)
};

By changing the text above that is in bold, you'll be changing the value of the Department variable ?

Shellow5 - April 29, 2014, 9:17 pm

Yeah, copy and pasting source code for a homework assignment really helps you understand... totally. For sure yeah best way to learn.

You will get really far when you don't understand anything. Yeah totally.

Epaphus - April 30, 2014, 4:29 am

All you did so far was create a couple classes and add a couple variables. So what you are currently doing is asking for people to show the path to do the work, and this isn't programming at all. A big part of programming (if not all) is problem solving, and by reviewing what you have I can tell you are a beginner. My Advice LEARN FROM BOOKS/VIDEOS and then come back to this.

reasondefies - May 4, 2014, 9:06 pm

(Apr 29, 2014 09:17 PM)schmidt73 Wrote: [\[CITE\]](#) Yeah, copy and pasting source code for a homework assignment really helps you understand... totally. For sure yeah best way to learn.

You will get really far when you don't understand anything. Yeah totally.

It's ok if you want to assume that is what's happening here, and I can't speak for the original poster - but as someone who is working toward being able to complete an assignment very similar to this one as a pre-requisite for a Java intensive I would like to attend (and as the very first piece of programming I have ever been expected to write), seeing at least partially completed code and being able to think through what is included in it is helpful while I am also working through several tutorials. If I just wanted someone to do it for me I imagine I could do it in about ten minutes on elance.