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实验一：

1. **实验内容**：题目
2. **实验思路**

用scanner管理输入的数据，完成get和set函数的格式。利用反复局的输出，输出各个学生的信息。在Array List保存学生的每个信息，容易输出学生的信息。

**（3）实验源码**

import java.util.ArrayList;  
import java.util.Arrays;  
import java.util.List;  
import java.util.Scanner;  
  
  
public class Main {  
  
 static Scanner *scanner* = new Scanner(System.*in*);  
  
 static List<Student> *Students* = new ArrayList<>();  
  
 static List<String> *classNames* = new ArrayList<>();  
  
 static String *Name*;  
 static int *Year*;  
  
 static List<String> *Class* = new ArrayList<>();  
  
 static List<Integer> *Grade* = new ArrayList<>();  
  
 int totalGrade;  
 public static void get(){  
  
  
 *Name* = *scanner*.nextLine();  
  
 *Year* = *scanner*.nextInt();  
  
 *scanner*.nextLine();  
  
 *Class* = new ArrayList<>();  
  
 String[] inputs = *scanner*.nextLine().split(" ");  
  
 *Class*.addAll(Arrays.*asList*(inputs));  
  
  
  
 *Grade* = new ArrayList<>();  
  
 inputs = *scanner*.nextLine().split(" ");  
  
 for (String name : inputs){  
 *Grade*.add(Integer.*parseInt*(name));  
 }  
  
  
  
 }  
  
 public static void set(){  
  
 *Students*.add(new Student(*Name*, *Year*, *Class*, *Grade*));  
  
 }  
  
  
 public static void main(String[] args) {  
  
 String[] inputs = *scanner*.nextLine().split(" ");  
  
 for (String name : inputs){  
 *classNames*.add(name);  
 }  
  
  
 int studentCount = 3;  
  
 for (int i = 0; i < studentCount; i++){  
 *get*();  
 *set*();  
 }  
  
 for (int i = 0; i < studentCount; i++){  
 *Students*.get(i).showMessage();  
  
 }  
  
 }  
  
}

import java.util.ArrayList;  
import java.util.List;  
  
public class Student {  
  
  
 String Name;  
 int Year;  
  
 List<String> Class;  
  
 List<Integer> Grade;  
  
 int totalGrade;  
  
 public Student(String Name, int Year, List<String> Class, List<Integer> Grade){  
  
 this.Name = Name;  
 this.Year = Year;  
 this.Class = Class;  
 this.Grade = Grade;  
  
 for (int grade : Grade) {  
 this.totalGrade += grade;  
  
 }  
 }  
  
  
 public void getHours(){  
  
 System.*out*.println(totalGrade);  
  
 }  
  
  
 public void showMessage(){  
  
 System.*out*.println(Name);  
 System.*out*.println(Year);  
  
 for (int i = 0; i < Class.size(); i++){  
  
 System.*out*.print(Class.get(i));  
 if (i != Class.size() - 1){  
 System.*out*.print(" ");  
 }  
  
 }  
  
 System.*out*.println();  
  
 for (int i = 0; i < Class.size(); i++){  
  
 System.*out*.print(Grade.get(i));  
 if (i != Class.size() - 1){  
 System.*out*.print(" ");  
 }  
  
 }  
  
 System.*out*.println();  
  
 System.*out*.println(totalGrade);  
  
 System.*out*.println();  
 }  
  
  
}

**]]**

**（4）实验心得**

学了怎么用scanner，每个scanner函数的不同点，怎么处理whitespace(ex. \n)。学会了在类型上的new局，生成和保存，管理类型。