1.建立一个实体类Student类，属性：姓名，年龄，成绩，班级

建立一个list1，包含“张三，18岁，80分，1班”，“李四，19岁，100分，1班”，“王五，

17岁，59分，1班”。

建立一个list2，包含“赵六，18岁，85分，2班”，“刘七，19岁，93分，2班”，“孙八，

17岁，55分，2班”。

（1）整合两个list学生信息成一个新的list

（2）按照分数给出学生信息排名

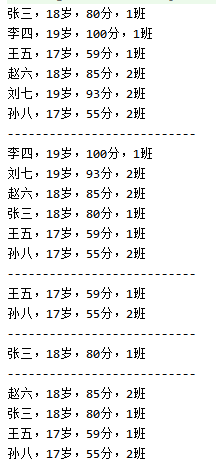
（3）输出不及格的学生信息

（4）查找张三的信息

（5）从list剔除年龄大于18岁的学生信息

**package** test;  
  
**import** java.util.ArrayList;  
**import** java.util.List;  
  
*/\*\*  
 \* list基础练习  
 \* panzehao  
 \* 2020-03-04 20:00  
 \*/***public class** Task {  
 */\*\*  
 \* 输出list中的数据  
 \*/* **public void** print(List<Student> list){  
 **for**(**int** i = 0; i < list.size(); i++){  
 System.***out***.println(list.get(i).getName() + **"，"** + list.get(i).getAge() + **"岁，"** + list.get(i).getAchievement() + **"分，"** + list.get(i).getClasses());  
 }  
 }  
  
 */\*\*  
 \* 对list中的数据按成绩进行降序排序输出  
 \*/* **public void** rank(List<Student> list){  
 **for**(**int** i = 0; i < list.size(); i++){  
 **for**(**int** j = i+1; j < list.size(); j++){  
 **if**(list.get(i).getAchievement() < list.get(j).getAchievement()){  
 Student st = list.get(i);  
 list.set(i,list.get(j));  
 list.set(j,st);  
 }  
 }  
 }  
 print(list);  
 }  
  
 */\*\*  
 \* 输出list中不及格学生的信息  
 \*/* **public void** fail(List<Student> list){  
 **for**(**int** i = 0; i < list.size(); i++){  
 **if**(list.get(i).getAchievement() < 60){  
 System.***out***.println(list.get(i).getName() + **"，"** + list.get(i).getAge() + **"岁，"** + list.get(i).getAchievement() + **"分，"** + list.get(i).getClasses());  
 }  
 }  
 }  
  
 */\*\*  
 \* 查找list中张三的信息并输出  
 \*/* **public void** seek(List<Student> list){  
 **for**(**int** i = 0; i < list.size(); i++){  
 **if** (**"张三"**.equals(list.get(i).getName())){  
 System.***out***.println(list.get(i).getName() + **"，"** + list.get(i).getAge() + **"岁，"** + list.get(i).getAchievement() + **"分，"** + list.get(i).getClasses());  
 }  
 }  
 }  
  
 */\*\*  
 \* 从list中剔除年龄大于18岁的学生信息并输出list中的数据  
 \*/* **public void** delete(List<Student> list){  
 **for**(**int** i = 0; i < list.size(); i++){  
 **if** (list.get(i).getAge() > 18){  
 list.remove(i);  
 i--;  
 }  
 }  
 print(list);  
 }  
 **public static void** main(String[] args) {  
 List<Student> list1 = **new** ArrayList<>();  
 list1.add(**new** Student(**"张三"**,18,80,**"1班"**));  
 list1.add(**new** Student(**"李四"**,19,100,**"1班"**));  
 list1.add(**new** Student(**"王五"**,17,59,**"1班"**));  
 List<Student> list2 = **new** ArrayList<>();  
 list2.add(**new** Student(**"赵六"**,18,85,**"2班"**));  
 list2.add(**new** Student(**"刘七"**,19,93,**"2班"**));  
 list2.add(**new** Student(**"孙八"**,17,55,**"2班"**));  
 list1.addAll(list2);  
 Task task = **new** Task();  
 task.print(list1);  
 System.***out***.println(**"---------------------------"**);  
 task.rank(list1);  
 System.***out***.println(**"---------------------------"**);  
 task.fail(list1);  
 System.***out***.println(**"---------------------------"**);  
 task.seek(list1);  
 System.***out***.println(**"---------------------------"**);  
 task.delete(list1);  
 }  
}

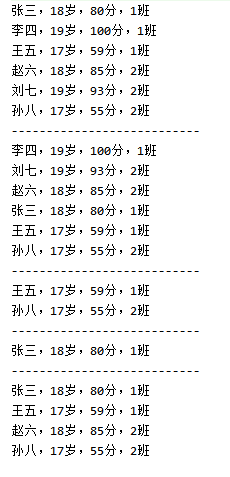
运行结果如图所示：



1. 使用Map完成练习1的习题。

**package** test;  
  
**import** java.util.ArrayList;  
**import** java.util.HashMap;  
**import** java.util.List;  
**import** java.util.Map;  
  
*/\*\*  
 \* Map基础练习  
 \* panzehao  
 \* 2020-03-04 22:24  
 \*/***public class** Task2 {  
 */\*\*  
 \* 输出map中的数据  
 \*/* **public void** print(Map<Integer,Student> map){  
 **for**(Map.Entry<Integer,Student>entry:map.entrySet()){  
 System.***out***.println(entry.getValue().getName() + **"，"** + entry.getValue().getAge() + **"岁，"** + entry.getValue().getAchievement() + **"分，"** + entry.getValue().getClasses());  
 }  
 }  
  
 */\*\*  
 \* 对map中的数据按成绩进行降序排序输出  
 \*/* **public void** rank(Map<Integer,Student> map){  
 List<Student> list = **new** ArrayList<>(map.values());  
 **for**(**int** i = 0; i < list.size(); i++){  
 **for**(**int** j = i+1; j < list.size(); j++){  
 **if**(list.get(i).getAchievement() < list.get(j).getAchievement()){  
 Student st = list.get(i);  
 list.set(i,list.get(j));  
 list.set(j,st);  
 }  
 }  
 }  
 **for**(**int** i = 0; i < list.size(); i++){  
 System.***out***.println(list.get(i).getName() + **"，"** + list.get(i).getAge() + **"岁，"** + list.get(i).getAchievement() + **"分，"** + list.get(i).getClasses());  
 }  
 }  
  
 */\*\*  
 \* 输出map中不及格的学生信息  
 \*/* **public void** fail(Map<Integer,Student> map){  
 **for**(Map.Entry<Integer,Student>entry:map.entrySet()){  
 **if**(entry.getValue().getAchievement() < 60){  
 System.***out***.println(entry.getValue().getName() + **"，"** + entry.getValue().getAge() + **"岁，"** + entry.getValue().getAchievement() + **"分，"** + entry.getValue().getClasses());  
 }  
 }  
 }  
  
 */\*\*  
 \* 查找map中张三的信息并输出  
 \*/* **public void** seek(Map<Integer,Student> map){  
 **for**(Map.Entry<Integer,Student>entry:map.entrySet()){  
 **if** (**"张三"**.equals(entry.getValue().getName())){  
 System.***out***.println(entry.getValue().getName() + **"，"** + entry.getValue().getAge() + **"岁，"** + entry.getValue().getAchievement() + **"分，"** + entry.getValue().getClasses());  
 }  
 }  
 }  
  
 */\*\*  
 \* 从map中删除年龄大于18岁的学生的信息并输出map中的数据  
 \*/* **public void** delete(Map<Integer,Student> map){  
 **for**(**int** i = 0 ; i < map.size(); i++){  
 **if**(map.get(i).getAge() > 18){  
 map.remove(i);  
 }  
 }  
 print(map);  
 }  
 **public static void** main(String[] args) {  
 Map<Integer,Student> map1 = **new** HashMap<>();  
 map1.put(0,**new** Student(**"张三"**,18,80,**"1班"**));  
 map1.put(1,**new** Student(**"李四"**,19,100,**"1班"**));  
 map1.put(2,**new** Student(**"王五"**,17,59,**"1班"**));  
 Map<Integer,Student> map2 = **new** HashMap<>();  
 map2.put(3,**new** Student(**"赵六"**,18,85,**"2班"**));  
 map2.put(4,**new** Student(**"刘七"**,19,93,**"2班"**));  
 map2.put(5,**new** Student(**"孙八"**,17,55,**"2班"**));  
 map1.putAll(map2);  
 Task2 task2 = **new** Task2();  
 task2.print(map1);  
 System.***out***.println(**"---------------------------"**);  
 task2.rank(map1);  
 System.***out***.println(**"---------------------------"**);  
 task2.fail(map1);  
 System.***out***.println(**"---------------------------"**);  
 task2.seek(map1);  
 System.***out***.println(**"---------------------------"**);  
 task2.delete(map1);  
 }  
}

运行结果如图所示：



3.仿照手机淘宝，设计订单和商品的实体类。

订单实体类如下所示：

**package** test;  
  
*/\*\*  
 \* 淘宝订单实体类  
 \* panzehao  
 \* 2020-03-05 00:23  
 \*/***public class** Order {  
 **private** String **addressee**; *//收件人* **private** String **addresseePhone**; *//收件人联系电话* **private** String **address**; *//收件地址* **private** String **express**; *//快递方式* **private** String **store**; *//商品店铺* **private** String **commodity**; *//商品信息* **private double commodityTotal**; *//商品总价* **private double freight**; *//运费* **private double orderTotal**; *//订单总价* **private** String **disbursements**; *//实付款* **private** String **orderNumber**; *//订单编号* **private** String **transactionNumber**; *//交易号* **private** String **createTime**; *//创建时间* **private** String **paymentTime**; *//付款时间* **private** String **deliveryTime**; *//发货时间* **public** String getAddressee() {  
 **return addressee**;  
 }  
  
 **public void** setAddressee(String addressee) {  
 **this**.**addressee** = addressee;  
 }  
  
 **public** String getAddresseePhone() {  
 **return addresseePhone**;  
 }  
  
 **public void** setAddresseePhone(String addresseePhone) {  
 **this**.**addresseePhone** = addresseePhone;  
 }  
  
 **public** String getAddress() {  
 **return address**;  
 }  
  
 **public void** setAddress(String address) {  
 **this**.**address** = address;  
 }  
  
 **public** String getStore() {  
 **return store**;  
 }  
  
 **public void** setStore(String store) {  
 **this**.**store** = store;  
 }  
  
 **public** String getCommodity() {  
 **return commodity**;  
 }  
  
 **public void** setCommodity(String commodity) {  
 **this**.**commodity** = commodity;  
 }  
  
 **public double** getCommodityTotal() {  
 **return commodityTotal**;  
 }  
  
 **public void** setCommodityTotal(**double** commodityTotal) {  
 **this**.**commodityTotal** = commodityTotal;  
 }  
  
 **public double** getFreight() {  
 **return freight**;  
 }  
  
 **public void** setFreight(**double** freight) {  
 **this**.**freight** = freight;  
 }  
  
 **public double** getOrderTotal() {  
 **return orderTotal**;  
 }  
  
 **public void** setOrderTotal(**double** orderTotal) {  
 **this**.**orderTotal** = orderTotal;  
 }  
  
 **public** String getDisbursements() {  
 **return disbursements**;  
 }  
  
 **public void** setDisbursements(String disbursements) {  
 **this**.**disbursements** = disbursements;  
 }  
  
 **public** String getOrderNumber() {  
 **return orderNumber**;  
 }  
  
 **public void** setOrderNumber(String orderNumber) {  
 **this**.**orderNumber** = orderNumber;  
 }  
  
 **public** String getTransactionNumber() {  
 **return transactionNumber**;  
 }  
  
 **public void** setTransactionNumber(String transactionNumber) {  
 **this**.**transactionNumber** = transactionNumber;  
 }  
  
 **public** String getCreateTime() {  
 **return createTime**;  
 }  
  
 **public void** setCreateTime(String createTime) {  
 **this**.**createTime** = createTime;  
 }  
  
 **public** String getPaymentTime() {  
 **return paymentTime**;  
 }  
  
 **public void** setPaymentTime(String paymentTime) {  
 **this**.**paymentTime** = paymentTime;  
 }  
  
 **public** String getDeliveryTime() {  
 **return deliveryTime**;  
 }  
  
 **public void** setDeliveryTime(String deliveryTime) {  
 **this**.**deliveryTime** = deliveryTime;  
 }  
  
}

商品实体类如下所示：

**package** test;  
  
*/\*\*  
 \* 商品实体类  
 \* panzehao  
 \* 2020-03-05 00:51  
 \*/***public class** Commodity {  
 **private** String **commodityNumber**; *//商品编号* **private** String **commodityName**; *//商品名* **private** String **store**; *//商品店铺* **private double commodityPrice**; *//商品价格* **private double freight**; *//运费* **private int monthlySales**; *//商品月销* **private** String **commodityAddress**; *//商品地址* **private int stock**; *//商品库存* **private** String **parameter**; *//商品参数* **private** String **commodityType**; *//商品类型* **private** String **commodityPictures**; *//商品图片* **private** String **evaluate**; *//商品评价* **private** String **commodityDetails**; *//商品详情* **public** String getCommodityNumber() {  
 **return commodityNumber**;  
 }  
  
 **public void** setCommodityNumber(String commodityNumber) {  
 **this**.**commodityNumber** = commodityNumber;  
 }  
  
 **public** String getCommodityName() {  
 **return commodityName**;  
 }  
  
 **public void** setCommodityName(String commodityName) {  
 **this**.**commodityName** = commodityName;  
 }  
  
 **public** String getStore() {  
 **return store**;  
 }  
  
 **public void** setStore(String store) {  
 **this**.**store** = store;  
 }  
  
 **public double** getCommodityPrice() {  
 **return commodityPrice**;  
 }  
  
 **public void** setCommodityPrice(**double** commodityPrice) {  
 **this**.**commodityPrice** = commodityPrice;  
 }  
  
 **public double** getFreight() {  
 **return freight**;  
 }  
  
 **public void** setFreight(**double** freight) {  
 **this**.**freight** = freight;  
 }  
  
 **public int** getMonthlySales() {  
 **return monthlySales**;  
 }  
  
 **public void** setMonthlySales(**int** monthlySales) {  
 **this**.**monthlySales** = monthlySales;  
 }  
  
 **public** String getCommodityAddress() {  
 **return commodityAddress**;  
 }  
  
 **public void** setCommodityAddress(String commodityAddress) {  
 **this**.**commodityAddress** = commodityAddress;  
 }  
  
 **public int** getStock() {  
 **return stock**;  
 }  
  
 **public void** setStock(**int** stock) {  
 **this**.**stock** = stock;  
 }  
  
 **public** String getParameter() {  
 **return parameter**;  
 }  
  
 **public void** setParameter(String parameter) {  
 **this**.**parameter** = parameter;  
 }  
  
 **public** String getCommodityType() {  
 **return commodityType**;  
 }  
  
 **public void** setCommodityType(String commodityType) {  
 **this**.**commodityType** = commodityType;  
 }  
  
 **public** String getCommodityPictures() {  
 **return commodityPictures**;  
 }  
  
 **public void** setCommodityPictures(String commodityPictures) {  
 **this**.**commodityPictures** = commodityPictures;  
 }  
  
 **public** String getEvaluate() {  
 **return evaluate**;  
 }  
  
 **public void** setEvaluate(String evaluate) {  
 **this**.**evaluate** = evaluate;  
 }  
  
 **public** String getCommodityDetails() {  
 **return commodityDetails**;  
 }  
  
 **public void** setCommodityDetails(String commodityDetails) {  
 **this**.**commodityDetails** = commodityDetails;  
 }  
  
}