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| 2017년 11월 2일 Java 실습보고서 |
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| 실습 2) ArrayList를 활용한 단어장 만들기 |

**■ 소스코드**

**[questionManager.java]**

**package Dictionary;**

**import java.util.ArrayList;**

**import java.util.Random;**

**import java.util.Scanner;**

**public class questionManager {//게임실행**

**private Scanner scan=new Scanner(System.in);**

**private Random r=new Random();**

**private int point=0;**

**public void start(ArrayList<Words> w) {//주관식**

**System.out.println("단어 퀴즈(주관식)");**

**for(int i=0;i<w.size();i++) {**

**int r1=r.nextInt(10);**

**if(!w.get(r1).isUsed()) {**

**w.get(r1).using();**

**System.out.print(w.get(r1).getWord()+": ");**

**String temp=scan.nextLine();**

**if(w.get(r1).getMeaning().contains("/")) {**

**String s[]=w.get(r1).getMeaning().split("/");**

**for(int j=0;j<s.length;j++) {**

**if(s[j].equals(temp)) {**

**point++;**

**System.out.println("정답입니다.");**

**break;**

**}else if(j==(s.length-1))**

**System.out.println("오답입니다.");**

**}**

**}**

**else if(temp.equals(w.get(r1).getMeaning())) {**

**point++;**

**System.out.println("정답입니다.");**

**}**

**else**

**System.out.println("오답입니다.");**

**}else**

**i--;**

**}**

**System.out.println(point+"개의 정답");**

**for(int i=0;i<10;i++)**

**w.get(i).reset();**

**point=0;**

**}**

**public void start2(ArrayList<Words> w) {//객관식**

**System.out.println("단어 퀴즈(객관식)");**

**for(int i=0;i<10;i++) {**

**int r1=r.nextInt(10);**

**if(!w.get(r1).isUsed()) {**

**w.get(r1).using();**

**System.out.println((i+1)+". "+w.get(r1).getWord()+"의 뜻은?" );**

**String temp[]=new String[4];**

**int num=r.nextInt(4);**

**temp[num]=w.get(r1).getMeaning();**

**for(int k=0;k<4;k++) {**

**if(k!=num) {**

**temp[k]=w.get(r.nextInt(10)).getMeaning();**

**if(temp[k].equals(temp[num]))**

**k--;**

**else {**

**for(int j=0;j<k;j++) {**

**if(temp[j].equals(temp[k]) && j!=num) {**

**temp[j]=w.get(r.nextInt(10)).getMeaning();**

**j--;**

**}**

**}**

**}**

**}else**

**continue;**

**}//객관식 보기만 랜덤으로**

**for(int j=0;j<4;j++) {**

**System.out.print((j+1)+") "+temp[j]+" ");**

**}**

**System.out.println();**

**System.out.print("정답 :");**

**int ch=scan.nextInt();**

**if(ch==(num+1)) {**

**System.out.println("정답입니다.");**

**point++;**

**}**

**else**

**System.out.println("오답입니다.");**

**}else**

**i--;**

**}**

**System.out.println(point+"개의 정답");**

**for(int i=0;i<10;i++)**

**w.get(r.nextInt(10)).reset();**

**point=0;**

**}**

**public void show(ArrayList<Words> w) {**

**System.out.println("단어장");**

**for(int i=0;i<10;i++)**

**System.out.println(w.get(i).getWord()+" : "+w.get(i).getMeaning());**

**}**

**}**

**[quiz.java]**

**package Dictionary;**

**import java.io.File;**

**import java.io.FileNotFoundException;**

**import java.util.ArrayList;**

**import java.util.Scanner;**

**public class quiz {**

**public static void main(String args[]) throws FileNotFoundException {**

**File file =new File("test.txt");**

**Scanner scan;**

**int count=0;**

**//Words[] words=new Words[10];**

**ArrayList<Words> words=new ArrayList<Words>();**

**questionManager q=new questionManager();**

**scan=new Scanner(file);**

**while(scan.hasNextLine()) {**

**String str=scan.nextLine();**

**words.add(new Words(str));**

**}**

**scan.close();**

**while(true) {**

**Scanner sc=new Scanner(System.in);**

**System.out.println("1)주관식 2)객관식 3)단어장 4)종료하기");**

**System.out.print("메뉴 선택: ");**

**int menu=sc.nextInt();**

**switch(menu) {**

**case 1:{**

**q.start(words);**

**break;**

**}**

**case 2:{**

**q.start2(words);**

**break;**

**}**

**case 3:{**

**q.show(words);**

**break;**

**}**

**case 4:{**

**return;**

**}**

**default:{**

**System.out.println("메뉴를 잘못입력");**

**break;**

**}**

**}**

**}**

**}**

**}**

**[Words.java]**

**package** Dictionary;

**public** **class** Words {

String word,meaning;

**boolean** used=**false**;

**public** Words(String str) {

String[]temp=str.split(":");

**this**.word=temp[0].trim();

**this**.meaning=temp[1].trim();

}

**public** String getWord() {

**return** word;

}

**public** String getMeaning() {

**return** meaning;

}

**public** **void** using() {

used=!used;

}

**public** **boolean** isUsed() {

**return** used;

}

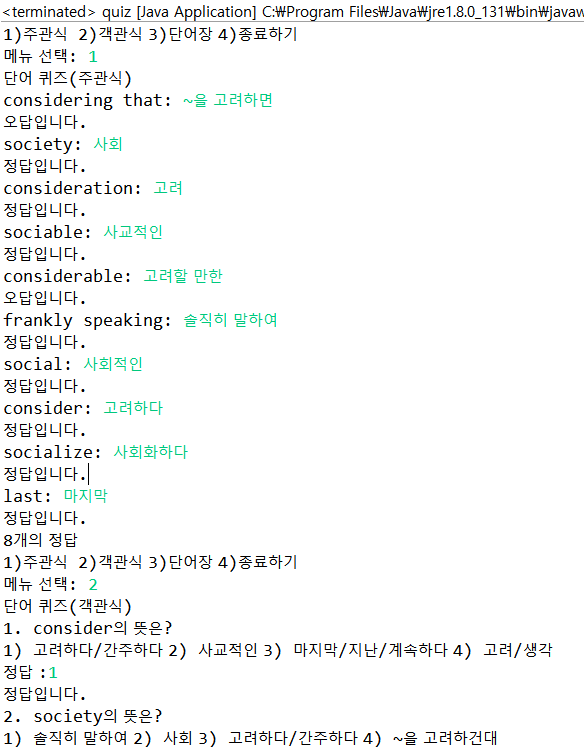
**public** **void** reset() {

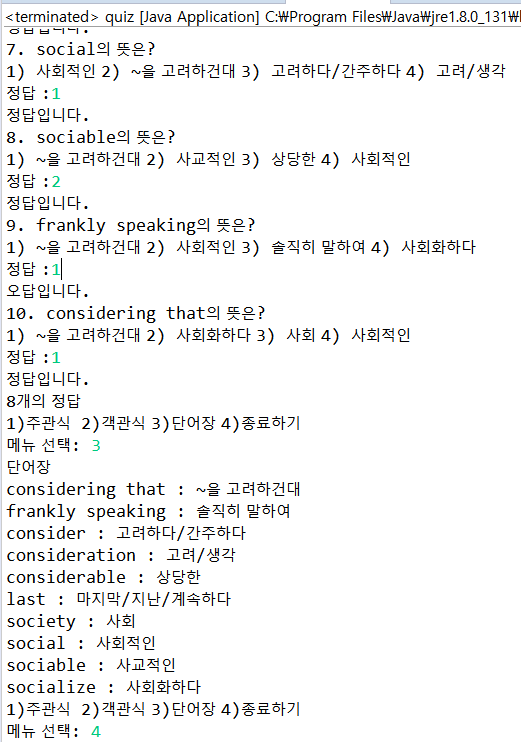
used=**false**;

}

}

**■ 결과화면**

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