**import** java.text.ParseException;

**import** java.text.SimpleDateFormat;

**import** java.util.ArrayList;

**import** java.util.Date;

**import** java.util.List;

**import** java.util.Scanner;

**public** **class** Program2 {

**public** **static** **void** main(String[] args) **throws** NumberFormatException, ParseException {

List<Note>noteList=**new** ArrayList<Note>();

SimpleDateFormat df1=**new** SimpleDateFormat("dd-MM-yyyy");

NoteBO nbo=**new** NoteBO();

System.***out***.println("Enter the number of Notes");

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

**int** no;

no=Integer.*parseInt*(input.nextLine());

**for**(**int** i=0;i<no;i++)

{

String detail;

detail=input.nextLine();

Note note=Note.*CreateNote*(detail);

noteList.add(note);

}

System.***out***.println("Enter a search type\n1.By Name\n2.By Created Date\n3.By Priority Level");

**int** choice;

choice=Integer.*parseInt*(input.nextLine());

**while**(choice>0)

{

**if**(choice==1)

{

System.***out***.println("Enter the Name");

String name;

name=input.nextLine();

List<Note>list1=nbo.FindNote(noteList, name);

System.***out***.println("Name\tContent\tSize\tPriority Level\tDateCreated");

**for** (Note note : list1) {

System.***out***.println(note.get\_name()+"\t"+note.get\_content()+"\t"+note.get\_size()+"\t"+

note.get\_prioritylevel()+"\t"+df1.format(note.get\_createdDate()));

}

}

**if**(choice==2)

{

System.***out***.println("Enter the Created Date");

SimpleDateFormat df=**new** SimpleDateFormat("dd-MM-yyyy");

Date createdDate;

createdDate=df.parse(input.nextLine());

List<Note>list=nbo.FindNote(noteList, createdDate);

**for** (Note note : list) {

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

}

}

**if**(choice==3)

{

System.***out***.println("Enter the priority level");

**double** priorityLevel;

priorityLevel=Double.*parseDouble*(input.nextLine());

List<Note>list=nbo.FindNote(noteList, priorityLevel);

**for** (Note note : list) {

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

}

}

**else**

{

System.***out***.println("Invalid choice");

}

System.***out***.println("Enter a search type\n1.By Name\n2.By Created Date\n3.By Priority Level");

choice=Integer.*parseInt*(input.nextLine());

}

}

}

**class** Note

{

**private** String \_name;

**private** String \_content;

**private** **double** \_size;

**private** **double** \_prioritylevel;

**private** Date \_createdDate;

**public** String get\_name() {

**return** \_name;

}

**public** **void** set\_name(String \_name) {

**this**.\_name = \_name;

}

**public** String get\_content() {

**return** \_content;

}

**public** **void** set\_content(String \_content) {

**this**.\_content = \_content;

}

**public** **double** get\_size() {

**return** \_size;

}

**public** **void** set\_size(**double** \_size) {

**this**.\_size = \_size;

}

**public** **double** get\_prioritylevel() {

**return** \_prioritylevel;

}

**public** **void** set\_prioritylevel(**double** \_prioritylevel) {

**this**.\_prioritylevel = \_prioritylevel;

}

**public** Date get\_createdDate() {

**return** \_createdDate;

}

**public** **void** set\_createdDate(Date \_createdDate) {

**this**.\_createdDate = \_createdDate;

}

**public** Note() {

}

**public** Note(String \_name, String \_content, **double** \_size, **double** \_prioritylevel, Date \_createdDate) {

**this**.\_name = \_name;

**this**.\_content = \_content;

**this**.\_size = \_size;

**this**.\_prioritylevel = \_prioritylevel;

**this**.\_createdDate = \_createdDate;

}

@Override

**public** String toString() {

SimpleDateFormat df=**new** SimpleDateFormat("dd-MM-yyyy");

**return** "Note [\_name=" + \_name + ", \_content=" + \_content + ", \_size=" + \_size + ", \_prioritylevel="

+ \_prioritylevel + ", \_createdDate=" +df.format( \_createdDate);

}

**public** **static** Note CreateNote(String detail) **throws** NumberFormatException, ParseException

{

SimpleDateFormat df=**new** SimpleDateFormat("dd-MM-yyyy");

Note note=**new** Note(detail.split(",")[0],detail.split(",")[1],Double.*parseDouble*(detail.split(",")[2])

,Double.*parseDouble*(detail.split(",")[3]),df.parse(detail.split(",")[4]));

**return** note;

}

}

**class** NoteBO

{

**public** List<Note> FindNote(List<Note> noteList,String name)

{

List<Note>list1=**new** ArrayList<Note>();

**for** (Note note : noteList) {

**if**(note.get\_name().equalsIgnoreCase(name))

{

list1.add(note);

}

}

**return** list1;

}

**public** List<Note> FindNote(List<Note> noteList,Date createdDate)

{

List<Note>list2=**new** ArrayList<Note>();

**for** (Note note : noteList) {

**if**(note.get\_createdDate().equals(createdDate))

{

list2.add(note);

}

}

**return** list2;

}

**public** List<Note> FindNote(List<Note> noteList,**double** priorityLevel)

{

List<Note>list3=**new** ArrayList<Note>();

**for** (Note note : noteList) {

**if**(note.get\_prioritylevel()==priorityLevel)

{

list3.add(note);

}

}

**return** list3;

}

}