

```
1 public class Book {  
2     public String bookTitle = "";  
3     public String bookAuthor = "";  
4     public String bookPublisher = "";  
5 }  
6
```

```
1 public class Main {
2     public static void main(String[] args) {
3         CourseWork course_work = new CourseWork();
4         course_work.AddCourse("Adv. Software Engineering"
5                               , "Nema"
6                               , "Davapanah"
7                               , "3-2636"
8                               , "Clean Code"
9                               , "Robert C. Martin"
10                              , "Pearson 1st edition");
11
12         Course new_course = new Course();
13         new_course.SetCourseName("Light Literature");
14         new_course.AddInstructor("Donald", "Brewer", "6-1545");
15         new_course.AddInstructor("Jeff", "Baloon", "6-1555");
16         new_course.AddBook("Shining Light", "Brailer Nuten", "Fun House");
17         new_course.AddBook("Light Text", "Jasonr Soler", "Gene Publishing");
18
19         course_work.AddCourse(new_course);
20
21         course_work.print();
22     }
23 }
```

```

1 import java.util.Vector;
2
3 public class Course {
4     private String name = "";
5
6     private final Vector<Instructor> instructors = new Vector<>();
7     private final Vector<Book> books = new Vector<>();
8
9     public void SetCourseName(String name) {
10         this.name = name;
11     }
12
13     public String GetCourseName() {
14         return name;
15     }
16
17     public void AddInstructor(String first_name, String last_name, String office_number
18 ) {
19         Instructor new_instructor = new Instructor();
20         new_instructor.instructorFirstName = first_name;
21         new_instructor.instructorLastName = last_name;
22         new_instructor.instructorOfficeNumber = office_number;
23
24         instructors.add(new_instructor);
25     }
26
27     public String GetInstructorFirstName(int index) {
28         return instructors.get(index).instructorFirstName;
29     }
30
31     public String GetInstructorLastName(int index) {
32         return instructors.get(index).instructorLastName;
33     }
34
35     public String GetInstructorOfficeNumber(int index) {
36         return instructors.get(index).instructorOfficeNumber;
37     }
38
39     public void AddBook(String title, String author, String publisher) {
40         Book new_book = new Book();
41         new_book.bookTitle = title;
42         new_book.bookAuthor = author;
43         new_book.bookPublisher = publisher;
44
45         books.add(new_book);
46     }
47
48     public String GetBookTitle(int index) {
49         return books.get(index).bookTitle;
50     }
51
52     public String GetBookAuthor(int index) {
53         return books.get(index).bookAuthor;
54     }
55
56     public String GetBookPublisher(int index) {
57         return books.get(index).bookPublisher;
58     }
59
60     public void print()
61     {
62         System.out.println("Course Name: " + name);
63
64         System.out.println("Instructor Name: ");
65         for (Instructor i : instructors) {
66             System.out.print(i.instructorFirstName + " " + i.instructorLastName + ", ");
67         }
68     }
69 }

```

```
67         System.out.println();
68
69         for (int i=0; i<books.size(); i++) {
70             System.out.println("Book " + (i+1) + ": " + books.get(i).bookTitle);
71             System.out.println("Book " + (i+1) + " Author: " + books.get(i).bookAuthor);
72         }
73     }
74 }
75
```

```
1 import java.util.Vector;
2
3 public class CourseWork {
4     private Vector<Course> courses = new Vector<>();
5
6     CourseWork() {
7
8     }
9
10    public void AddCourse(String course_name
11                          ,String instructor_first_name
12                          ,String instructor_last_name
13                          ,String instructor_office_number
14                          ,String book_title
15                          ,String book_author
16                          ,String book_publisher) {
17        Course add_course = new Course();
18
19        add_course.SetCourseName(course_name);
20        add_course.AddInstructor(instructor_first_name, instructor_last_name,
21 instructor_office_number);
22        add_course.AddBook(book_title, book_author, book_publisher);
23        courses.add(add_course);
24    }
25
26    public void AddCourse(Course new_course) {
27        courses.add(new_course);
28    }
29
30    public void print() {
31        for (Course c : courses) {
32            c.print();
33            System.out.println("");
34            System.out.println("");
35        }
36    }
37 }
38
```

```
1 public class Instructor {  
2     public String instructorFirstName = "";  
3     public String instructorLastName = "";  
4     public String instructorOfficeNumber = "";  
5 }
```