

**Assignment:** Write a program to read and write object to the file. the object need to store bookinfo

eg: bookid, title, author

store and retrieve few objects to the file.

**Program:1**

```
import java.io.*;

class BookInfo implements Serializable {
    private int bookId;
    private String title;
    private String author;

    // Constructor
    public BookInfo(int bookId, String title, String author) {
        this.bookId = bookId;
        this.title = title;
        this.author = author;
    }

    // Getters and setters (not necessary for serialization
example)

    public int getBookId() {
        return bookId;
    }

    public String getTitle() {
        return title;
    }

    public String getAuthor() {
        return author;
    }
}

public class Serialization {
```

```

// Method to write objects to a file

public static void writeObjectsToFile(String filename, BookInfo[] books)
{

    try (ObjectOutputStream oos = new ObjectOutputStream(new
        FileOutputStream(filename))) {
        oos.writeObject(books);
        System.out.println("Objects written to file: " +
filename);
    } catch (IOException e) {
        e.printStackTrace();
    }
}

// Method to read objects from a file
public static BookInfo[] readObjectsFromFile(String filename) {
    try (ObjectInputStream ois = new ObjectInputStream(new
        FileInputStream(filename))) {
        Object obj = ois.readObject();
        if (obj instanceof BookInfo[]) {
            return (BookInfo[]) obj;
        } else {
            System.out.println("Invalid file format.");
            return null;
        }
    } catch (IOException | ClassNotFoundException e) {
        e.printStackTrace();
        return null;
    }
}

public static void main(String[] args) {
    // Create an array of BookInfo objects
    BookInfo[] books = {
        new BookInfo(1, "The Great Gatsby", "F. Scott
Fitzgerald"),
        new BookInfo(2, "To Kill a Mockingbird", "Harper
Lee"),
        new BookInfo(3, "1984", "George Orwell")
    };

    // Write objects to a file
    writeObjectsToFile("books.dat", books);

    // Read objects from the file
    BookInfo[] retrievedBooks =
readObjectsFromFile("books.dat");
}

```

```
// Display retrieved objects
    if (retrievedBooks != null) {
        System.out.println("Retrieved Objects:");

        for (BookInfo book : retrievedBooks) {
            System.out.println("Book ID: " + book.getBookId() +
                               ", Title: " + book.getTitle() +
                               ", Author: " + book.getAuthor());
        }
    }
}
```

## Output:

A screenshot of the Eclipse IDE's console window. The window title is "Console x". The output text is as follows: <terminated> Serialization [Java Application] C:\Users\yella.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.7.v20230425-1502\jre\bin\j... Objects written to file: books.dat Retrieved Objects: Book ID: 1, Title: The Great Gatsby, Author: F. Scott Fitzgerald Book ID: 2, Title: To Kill a Mockingbird, Author: Harper Lee Book ID: 3, Title: 1984, Author: George Orwell  

```
<terminated> Serialization [Java Application] C:\Users\yella.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.7.v20230425-1502\jre\bin\j...
Objects written to file: books.dat
Retrieved Objects:
Book ID: 1, Title: The Great Gatsby, Author: F. Scott Fitzgerald
Book ID: 2, Title: To Kill a Mockingbird, Author: Harper Lee
Book ID: 3, Title: 1984, Author: George Orwell
```