

```
+-----+
|  Person  |
+-----+
| - name: String |
+-----+
| + Person(name: String) |
| + getName(): String |
+-----+

|
|
V
```

+-----+	+-----+
Author	Producer
+-----+	+-----+
+-----+	+-----+
+ Author(name: String)	+ Producer(name: String)
+-----+	+-----+
V	

```
+-----+
|  Media  |
+-----+
| - title: String |
| - genre: String |
| - borrowCount: int |
```

```
| - borrowed: boolean |  
+-----+  
| + Media(title: String, genre: String) |  
| + getTitle(): String |  
| + getGenre(): String |  
| + getBorrowCount(): int |  
| + incrementBorrowCount(): void |  
| + isBorrowed(): boolean |  
| + setBorrowed(borrowed: boolean): void |  
+-----+
```

```
|  
|  
V
```

```
+-----+  
|   Book   |  
+-----+  
| - author: Author |  
+-----+  
| + Book(title: String, genre: String, author: Author) |  
| + getAuthor(): Author |  
+-----+
```

```
|  
|  
V
```

```
+-----+  
| MusicRecording |  
+-----+
```

```

| - producer: Person |
+-----+
| + MusicRecording(title: String, genre: String, producer: Person) |
| + getProducer(): Person |
+-----+

```

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|
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V

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```

+-----+
| LibraryMember |
+-----+
|           |
+-----+
| + LibraryMember(name: String) |
+-----+

```

```

|
|
V

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```

+-----+
| LibrarySimulation |
+-----+
| - librarySystem: LibrarySystem |
| - scanner: Scanner |
+-----+
| + LibrarySimulation() |
| + createSimulation(): void |
| + addNewBook(): void |

```

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| + addNewMusicRecording(): void |
| + addNewMember(): void |
| + displayMediaByGenre(): void |
| + displayMostBorrowedMedia(): void |
| + indicatePersonType(): void |
| + addBorrowingRecord(): void |
| + saveDataToFile(): void |
| + main(args: String[]): void |

```

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+-----+

```

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|
|
V

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+-----+

```

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| LibrarySystem |

```

```

+-----+

```

```

| - books: List<Book> |
| - musicRecordings: List<MusicRecording> |
| - libraryMembers: List<LibraryMember> |

```

```

+-----+

```

```

| + LibrarySystem() |
| + addBook(title: String, genre: String, author: Author): void |
| + addMusicRecording(title: String, genre: String, producer: Person): void |
| + isPersonAuthor(person: Person): boolean |
| + isPersonProducer(person: Person): boolean |
| + addLibraryMember(name: String): void |
| + displayMediaByGenre(genre: String): void |
| + displayMostBorrowedMedia(): void |
| + findMediaItemByTitle(title: String): Media |
| + incrementBorrowCount(mediaItem: Media): void |

```

| + indicatePersonType(person: Person): void |

| + saveDataToFile(): void |

+-----+