

## Mini Project: "Personal Library"

### CODE:

```
class Book {  
  
  constructor(title, author, yrpublished, readstatus) {  
  
    this.title = title;  
  
    this.author = author;  
  
    this.yrpublished = yrpublished;  
  
    this.readstatus = readstatus;  
  
  }  
  
  getSummary() {  
  
    return `Title: ${this.title} by Author: ${this.author} at Year ${this.yrpublished}`;  
  
  }  
  
  toggleReadStatus() {  
  
    this.readstatus = !this.readstatus;  
  
  }  
}  
  
const library = [];  
  
function addbook(book) {  
  
  book.readstatus = typeof book.readstatus === 'undefined' ? true : book.readstatus;  
  
  library.push(book);  
  
}  
  
function removelastBook() {  
  
  library.pop();  
  
}
```

```
function addBookToFront(book) {  
    library.unshift(book);  
}
```

```
function removeFirstBook() {  
    library.shift();  
}
```

```
function getAllTitles() {  
    return library.map(book => book.title);  
}
```

```
function getBooksByAuthor(author) {  
    return library.filter(book => book.author === author);  
}
```

```
function getTotalBooksPublishedBefore(year) {  
    return library.filter(book => book.yrpublished < year).length;  
}
```

```
function removeBookByTitle(title) {  
    const index = library.findIndex(book => book.title === title);  
    if (index !== -1) {  
        return library.splice(index, 1);  
    }  
}
```

```
function getBooksByReadStatus(status) {  
    return library.filter(book => book.readstatus === status);  
}
```

```
}
```

```
function getSubLibrary(start, end) {  
  return library.slice(start, end);  
}
```

```
addbook({ title: "Ponniyin Selvan", author: "Kalki Krishnamurthy", yrpublished: 1954, readstatus:  
true });
```

```
addbook({ title: "Hymns for the drowning", author: "Nammalvar", yrpublished: 1981, readstatus:  
false });
```

```
addbook({ title: "Pride and Prejudice", author: "Jane Austen", yrpublished: 1813, readstatus: true  
});
```

```
removelastBook();
```

```
console.log(library);
```

```
addBookToFront({ title: "Treasure Island", author: "Robert", yrpublished: 1951, readstatus: false  
});
```

```
console.log(library);
```

```
addbook({ title: "Pride and Prejudice", author: "Jane Austen", yrpublished: 1813, readstatus: true  
});
```

```
console.log(library);
```

```
console.log(getAllTitles());
```

```
console.log(getBooksByAuthor("Jane Austen"));
```

```
console.log(getTotalBooksPublishedBefore(1950));
```

```
console.log(removeBookByTitle("Pride and Prejudice"));
```

```
console.log(getBooksByReadStatus(true));
```

```
console.log(getSubLibrary(1, 2));
```

## OUTPUT:

```
VM3147:69
▼ (2) [{-}, {-}] 0
  ► 0: {title: 'Treasure Island', author: 'Robert', yrpublished: 1951, readstatus: 1}
  ► 1: {title: 'Ponniyin Selvan', author: 'Kalki Krishnamurthy', yrpublished: 1954, readstatus: 1}
  ► 2: {title: 'Hymns for the drowning', author: 'Nammalvar', yrpublished: 1981, readstatus: 1}
  length: 3
  ► [[Prototype]]: Array(0)

VM3147:71
▼ (3) [{-}, {-}, {-}] 0
  ► 0: {title: 'Treasure Island', author: 'Robert', yrpublished: 1951, readstatus: 1}
  ► 1: {title: 'Ponniyin Selvan', author: 'Kalki Krishnamurthy', yrpublished: 1954, readstatus: 1}
  ► 2: {title: 'Hymns for the drowning', author: 'Nammalvar', yrpublished: 1981, readstatus: 1}
  length: 3
  ► [[Prototype]]: Array(0)

VM3147:73
▼ (4) [{-}, {-}, {-}, {-}] 0
  ► 0: {title: 'Treasure Island', author: 'Robert', yrpublished: 1951, readstatus: 1}
  ► 1: {title: 'Ponniyin Selvan', author: 'Kalki Krishnamurthy', yrpublished: 1954, readstatus: 1}
  ► 2: {title: 'Hymns for the drowning', author: 'Nammalvar', yrpublished: 1981, readstatus: 1}
  length: 3
  ► [[Prototype]]: Array(0)

VM3147:76
▼ (4) ['Treasure Island', 'Ponniyin Selvan', 'Hymns for the drowning', 'Pride and Prejudice'] 0
  0: "Treasure Island"
  1: "Ponniyin Selvan"
  2: "Hymns for the drowning"
  3: "Pride and Prejudice"
  length: 4
  ► [[Prototype]]: Array(0)
```

```
VM3147:76
▼ (4) ['Treasure Island', 'Ponniyin Selvan', 'Hymns for the drowning', 'Pride and Prejudice'] 0
  0: "Treasure Island"
  1: "Ponniyin Selvan"
  2: "Hymns for the drowning"
  3: "Pride and Prejudice"
  length: 4
  ► [[Prototype]]: Array(0)

VM3147:79
▼ [{-}] 0
  ► 0: {title: 'Pride and Prejudice', author: 'Jane Austen', yrpublished: 1813, readstatus: 1}
  length: 1
  ► [[Prototype]]: Array(0)

1
VM3147:82
▼ [{-}] 0
  ► 0: {title: 'Pride and Prejudice', author: 'Jane Austen', yrpublished: 1813, readstatus: 1}
  length: 1
  ► [[Prototype]]: Array(0)

VM3147:85
▼ [{-}] 0
  ► 0: {title: 'Pride and Prejudice', author: 'Jane Austen', yrpublished: 1813, readstatus: 1}
  length: 1
  ► [[Prototype]]: Array(0)

VM3147:88
▼ [{-}] 0
  ► 0: {title: 'Ponniyin Selvan', author: 'Kalki Krishnamurthy', yrpublished: 1954, readstatus: 1}
  length: 1
  ► [[Prototype]]: Array(0)

VM3147:91
▼ [{-}] 0
  ► 0: {title: 'Ponniyin Selvan', author: 'Kalki Krishnamurthy', yrpublished: 1954, readstatus: 1}
  length: 1
  ► [[Prototype]]: Array(0)

undefined
>
```

