

WEEK 2

MINI PROJECT : Personal Library

NAME : SANANDA S

ROLL NO : 717821T140

DEPT : ETE

CODE:

```
const book = {  
  title: '',  
  author: '',  
  yearPublished: 0,  
  readStatus: false,  
  
  getSummary() {  
    return `Title: ${this.title}, Author: ${this.author}, Year  
Published: ${this.yearPublished}`;  
  },  
  toggleReadStatus() {  
    this.readStatus = !this.readStatus;  
  }  
};  
  
// Library Array  
const library = [];  
  
//Methods  
function addBook(book) {
```

```
    library.push(book);
}

function removeLastBook() {
    return library.pop();
}

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

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

// Additional Methods
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.yearPublished <=
year).reduce((acc, curr) => acc + 1, 0);
}
```

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

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

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

// Bonus: User Interaction

```
function promptUser(message) {  
  return prompt(message);  
}
```

```
function addBookManually() {  
  const title = promptUser("Enter book title: ");  
  const author = promptUser("Enter book author: ");  
  const yearPublished = parseInt(promptUser("Enter book year  
published: "));  
  const book = { title, author, yearPublished };  
  addBook(book);  
}
```

```

function removeBookManually() {
    const title = prompt("Enter book title to remove: ");
    removeBookByTitle(title);
}

function searchBooksManually() {
    let query = prompt("Enter a keyword or phrase to search for: ");
    const filteredBooks = [];
    for (const book of library.books) {
        if (book.title.includes(query) || book.author.includes(query) ||
            book.getSummary.includes(query)) {
            filteredBooks.push(book);
        }
    }
    return filteredBooks;
}

```

INUPUT:

```

console.log(library);

addBook({ title: "The India Story", author: "Bimal Jalal",
yearPublished: 2022 });

addBook({ title: "Right Under Our Nose", author: "R. Giridharan",
yearPublished: 2021 });

addBook({ title: "The Thin Mind Map", author: "Dharmendra Rai",
yearPublished: 2020 });

console.log(library);

console.log(getAllTitles());

console.log(getBooksByAuthor("Bimal Jalal"));

console.log(getTotalBooksPublishedBefore(2015));

removeBookByTitle("Right Under Our Nose");

console.log(library);

searchBookManually();

```

OUTPUT:

▶ []	VM3513:95
▼ (3) [{...}, {...}, {...}] ⓘ	VM3513:99
▼ 0:	
author: "Bimal Jalal"	
title: "The India Story"	
yearPublished: 2022	
▶ [[Prototype]]: Object	
▼ 1:	
author: "Dharmendra Rai"	
title: "The Thin Mind Map"	
yearPublished: 2020	
▶ [[Prototype]]: Object	
length: 2	
▶ [[Prototype]]: Array(0)	
▶ (3) ['The India Story', 'Right Under Our Nose', 'The Thin Mind Map']	VM3513:100
▶ [{...}] ⓘ	VM3513:101
▶ 0: {title: 'The India Story', author: 'Bimal Jalal', yearPublished: 2022, length: 1}	
▶ [[Prototype]]: Array(0)	
0	VM3513:102
▼ (2) [{...}, {...}] ⓘ	VM3513:104
▶ 0: {title: 'The India Story', author: 'Bimal Jalal', yearPublished: 2022, length: 1}	
▶ 1: {title: 'The Thin Mind Map', author: 'Dharmendra Rai', yearPublished: 2020, length: 2}	
▶ [[Prototype]]: Array(0)	
Found 2 book(s)	VM3509:86