Week 2:

Mini Project: "Personal Library"

1. Define the Book Object with methods

```
///Create a Book Object
const Book={
    title:"You Can Win",
    author:"Robert",
    year:2004,
    readStatus:"yes",
    toggleRead:function()
    {
        return `Nice One!`
    },
    toggleReadStatus:function()
    {
        if(this.readStatus=="yes")
        {
            return "no";
        }
        else{
            return "yes";
        }
    }
}
const Book1={
    title:"Meg",
    author:"Willaim",
    year:2003,
    readStatus:"no",
    toggleRead:function()
    {
        return `Not Bad!`
    },
    toggleReadStatus:function()
    {
        if(this.readStatus=="yes")
        {
            return "no";
        }
        else{
            return "yes";
```

```
        }
    }
}
const Book2={
    title:"Veeran",
    author:"Henry",
    year:2002,
    readStatus:"no",
    toggleRead:function()
    {
        return `Not Bad!`
    },
    toggleReadStatus:function()
    {
        if(this.readStatus=="yes")
        {
            return "no";
        }
        else{
            return "yes";
        }
    }
}

const Book4={
    title:"Mass",
    author:"Khan",
    year:2004,
    readStatus:"yes",
    toggleRead:function()
    {
        return `Not Bad!`
    },
    toggleReadStatus:function()
    {
        if(this.readStatus=="yes")
        {
            return "no";
        }
        else{
            return "yes";
        }
    }
```

```
}
```

2. Books Collection (Array)

```javascript
//Initailixe Array Lib
const Library=[];
Library.push(Book);
Library.push(Book1);
Library.push(Book2);
Library.push(Book4);
```

3. Array Methods:

```javascript
//Array Methods
//addBook
function addBook(book)
{
    Library.push(book);
}
addBook("Escape");
addBook("Thriller");

//removeLast
function removeLastBook()
{
    Library.pop();
}
removeLastBook();

//addBookFront
function addBookToFront(book)
{
    Library.unshift(book);
}
addBookToFront("Game Of Thrones");
addBookToFront("Money Hiest");

//removeFirst
function removeFirstBook()
{
    Library.shift();
}
removeFirstBook();
console.log(Library);
```

4. Additional Methods:

```
/Additional Methods

function getAllTitles()
{
    Library.map((e)=>
    {
        console.log(`The Titles of the book is ${e.title}`);
    });
}
getAllTitles();

function getBooksByAuthor(a)
{
    const getAut=Library.filter((val)=>val.author==a);
    console.log(getAut);
}
getBooksByAuthor("Robert");

function getTotalBooksPublished(value)
{
    const
getYear=Library.filter((y)=>y.year<value).reduce((acc,cuu)=>acc+1,0);
    console.log(getYear);
}
getTotalBooksPublished(2002);

function removeBookByTitle(tit)
{
    let ind=Library.findIndex((index)=>
    {
        if(index.title==tit)
        {
            return true;
        }
    });
    const rem=Library.splice(ind,1);
    console.log(rem);
}
removeBookByTitle("Meg");

function getBookByReadStatus(s)
```

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```javascript
{
    const ad=Library.filter((y)=>y.readStatus==s)
    console.log(ad);
}
getBookByReadStatus("no");

function getSubLibrary(start,end)
{
    const subli=Library.slice(start,end);
    console.log(subli);
}
getSubLibrary(0,3)
```

OUTPUT: