UNIVERSITY OF WESTMINSTER⌘

Informatics Institute of Technology
Department of Computing

Module: 5COSC009C – OOP

Degree Program - BEngSE

Tutorial Group - Group D

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Overnight Coursework 04

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Introduction

This the frontend that is developed using angular and typescript. This contain web layout to insert and retrieve data for the library management system.

Codes for the programme

1. Main Menu

```html
<div style="text-align:center">
 <br>
 <svg xmlns="http://www.w3.org/2000/svg" x="0px" y="0px"
    width="50" height="50"
    viewBox="0 0 252 252"
    style="fill:#3498db;">
  <g transform="">
   <g fill="none" fill-rule="nonzero" stroke="none"
     stroke-width="1" stroke-linecap="butt" stroke-linejoin="miter" stroke-miterlimit="10"
     stroke-dasharray="" stroke-dashoffset="0" font-family="none" font-weight="none"
     font-size="none" text-anchor="none" style="mix-blend-mode: normal">
    <path d="M0,252v-252h252v252z"
       fill="none"></path>
    <g id="original-icon" fill="#3498db">
     <g id="surface1">
      <path
        d="M121.15385,0c-1.62801,0 -3.40745,0.34075 -4.84615,1.21154l-111.76442,67.84615c-
3.63462,2.19592 -5.33834,6.66346 -4.24038,10.90385c1.09795,4.24038 4.88401,7.26923
9.08654,7.26923h223.52885c5.14904,0 9.38942,-4.3161 9.38942,-9.69231c0,-4.08894 -2.34735,-
7.64783 -5.75481,-9.08654l-110.85577,-67.24038c-1.4387,-0.87079 -2.91526,-1.21154 -4.54327,-
1.21154zM121.15385,32.40865c11.50962,0 20.89904,9.38942 20.89904,20.89904c0,11.50962 -
9.38942,20.89904 -20.89904,20.89904c-11.50962,0 -20.89904,-9.38942 -20.89904,-20.89904c0,-
11.50962 9.38942,-20.89904 20.89904,-20.89904zM9.69231,96.92308v9.69231c0,5.33834
4.35397,9.69231 9.69231,9.69231v77.53846h29.07692v-77.53846c5.33834,0 9.69231,-4.35397
9.69231,-9.69231v-9.69231zM67.84615,96.92308v9.69231c0,5.33834 4.35397,9.69231
9.69231,9.69231v77.53846h29.07692v-77.53846c5.33834,0 9.69231,-4.35397 9.69231,-9.69231v-
9.69231zM126,96.92308v9.69231c0,5.33834 4.35397,9.69231 9.69231,9.69231v77.53846h29.07692v-
77.53846c5.33834,0 9.69231,-4.35397 9.69231,-9.69231v-
9.69231zM184.15385,96.92308v9.69231c0,5.33834 4.35397,9.69231
9.69231,9.69231v77.53846h29.07692v-77.53846c5.33834,0 9.69231,-4.35397 9.69231,-9.69231v-
9.69231zM19.38462,203.53846v19.38462h-9.69231c-5.33834,0 -9.69231,4.35397 -
9.69231,9.69231v9.69231c0,5.33834 4.35397,9.69231 9.69231,9.69231h222.92308c5.33834,0
9.69231,-4.35397 9.69231,-9.69231v-9.69231c0,-5.33834 -4.35397,-9.69231 -9.69231,-9.69231h-
9.69231v-19.38462z"></path>
     </g>
    </g>
    <path
```

```html
      d="M126,252c-69.58788,0 -126,-56.41212 -126,-126v0c0,-69.58788 56.41212,-126 126,-126h0c69.58788,0 126,56.41212 126,126v0c0,69.58788 -56.41212,126 -126,126z"
      fill="none"></path>
    <path
      d="M126,246.96c-66.80436,0 -120.96,-54.15564 -120.96,-120.96v0c0,-66.80436 54.15564,-120.96 120.96,-120.96 120.96,-120.96v0c66.80436,0 120.96,54.15564 120.96,120.96v0c0,66.80436 -54.15564,120.96 -120.96,120.96z"
      fill="none"></path>
    <path d="" fill="none"></path>
    <path d="" fill="none"></path>
   </g>
  </g>
 </svg>

 <br>
 <h2>Welcome to Library management system</h2><br>
</div>

<div class="btn-group-horizontal btncenter">

 <!--<h2 class="text-small-topic welcome">Select your function</h2><br>-->

 <a routerLink="/componet/form-additem">
  <button type="button" class="btn btn-primary">Add Items</button>
 </a>
 <a routerLink="/componet/form-remitems">
  <button type="button" class="btn btn-secondary">Remove Items</button>
 </a>
 <a routerLink="/componet/form-borrowitem">
  <button type="button" class="btn btn-success">Borrow Item</button>
 </a>
 <br>
 <a routerLink="/componet/form-returnitem">
  <button type="button" class="btn btn-danger">Return Item</button>
 </a>
 <a routerLink="/componet/form-listitems">
  <button type="button" class="btn btn-warning">List Items</button>
 </a>
 <a routerLink="/componet/form-reportgen">
  <button type="button" class="btn btn-info">Generate report</button>
 </a>

 <br><br>
</div>
```

CSS

```css
.text-small-topic {
 font-size: large;
}
h2 {
 font-size: medium;
 text-align: center;
 padding-top: 3px;
}
.welcome {
 margin-left: -43%;
}
button {
 margin: 10px;
 width: 16.65%;
 alignment: center;
 color: white;
}
.btncenter{

 text-align: center;
}
```

2. Footer

HTML

```html
<!-- Footer -->
<footer class="page-footer font-small special-color-dark pt-4">

  <!-- Copyright -->
  <div class="footer-copyright text-center py-3 bg-dark text-color">Copyright © 2018 | Westminster
    Library Management System |
    Developed by Vikum Sanjeewa. All right reserved.
  </div>
  <!-- Copyright -->

</footer>
<!-- Footer -->
```

CSS

```css
.text-color {
  color: white;
}
```

3. Add Item

```html
<h2>Select item type</h2>

<br>
<div class="d-flex justify-content-center">

  <div class='col-lg-3'>
    <a routerLink="/componet/item-book">
      <button type="button" class="btn btn-outline-primary">Book</button>
    </a>
    <a routerLink="/componet/item-dvd">
      <button type="button" class="btn btn-outline-primary">DVD</button>
    </a>
  </div>
</div>
```

CSS

```css
h2 {
  text-align: center;
}

a {
  margin: 35px;
}
```

4. Book

```html
<form class="form-verticle">
 <fieldset>

  <!-- Form Name -->
  <legend>Add a book</legend>

  <div class="form-row">
  <div class="col-md-3 mb-3">
   <label class="control-label" for="ISBN">ISBN</label>
    <input id="ISBN" name="ISBN" type="text" placeholder="Enter isbn of the book" class="form-
control input-md"
        required="">
  </div>

  <div class="col-md-3 mb-3">
   <label class="control-label" for="Topic">Topic</label>
    <input id="Topic" name="Topic" type="text" placeholder="Enter the topic" class="form-control
input-md"
        required="">
  </div>

  <div class="col-md-3 mb-3">
   <label class="control-label" for="Sector">Sector</label>
    <input id="Sector" name="Sector" type="text" placeholder="Enter the category" class="form-
control input-md"
        required="">
  </div>

  <div class="col-md-3 mb-3">
   <label class="control-label" for="Publish Date">Publish Date</label>
    <input id="Publish Date" name="Publish Date" type="text" placeholder="Enter the date of
publish"
        class="form-control input-md" required="">
  </div>

  <div class="col-md-3 mb-3">
   <label class="control-label" for="Author Details">Author Details</label>
    <input id="Author Details" name="Author Details" type="text" placeholder="Enter Author
Details"
        class="form-control input-md" required="">
```

```html
          </div>

    <!-- Text input-->
    <div class="col-md-3 mb-3">
     <label class="control-label" for="Publisher Details">Publisher Details</label>
      <input id="Publisher Details" name="Publisher Details" type="text" placeholder="Enter Publisher
Details"
         class="form-control input-md" required="">
    </div>

    <!-- Text input-->
    <div class="col-md-3 mb-3">
     <label class="control-label" for="NO of pages">NO of pages</label>
      <input id="NO of pages" name="NO of pages" type="text" placeholder="no of pages" class="form-
control input-md"
         required="">
    </div>
    </div>
    <!-- Button -->
    <div class="form-group">
     <label class="col-md-4 control-label" for=""></label>
     <div class="col-md-4">
       <button id="" name="" class="btn btn-success">Submit</button>
     </div>
    </div>

  </fieldset>
</form>
```

5. DVD

```html
<form class="form-horizontal">
 <fieldset>

  <!-- Form Name -->
  <legend>Add a DVD</legend>
<div class="form-row">

  <div class="col-md-3 mb-3">
   <label class="control-label" for="ISBN">ISBN</label>
    <input id="ISBN" name="ISBN" type="text" placeholder="Enter isbn of the book" class="form-
control input-md"
        required="">
  </div>

  <div class="col-md-3 mb-3">
   <label class="control-label" for="Topic">Topic</label>
    <input id="Topic" name="Topic" type="text" placeholder="Enter the topic" class="form-control
input-md"
        required="">
  </div>

  <div class="col-md-3 mb-3">
   <label class="control-label" for="Sector">Sector</label>
    <input id="Sector" name="Sector" type="text" placeholder="Enter the category" class="form-
control input-md"
        required="">
  </div>

  <div class="col-md-3 mb-3">
   <label class="control-label" for="Publish Date">Publish Date</label>
    <input id="Publish Date" name="Publish Date" type="text" placeholder="Enter the date of
publish"
        class="form-control input-md" required="">
  </div>

  <div class="col-md-3 mb-3">
   <label class="control-label" for="Actors Details">Actors Details</label>
    <input id="Actors Details" name="Actors Details" type="text" placeholder="Enter Actors Details"
        class="form-control input-md" required="">
  </div>
```

```html
<div class="col-md-3 mb-3">
  <label class="control-label" for="Producer Details">Producer Details</label>
    <input id="Producer Details" name="Producer Details" type="text" placeholder="Enter Producer
Details"
      class="form-control input-md" required="">
</div>

<div class="col-md-3 mb-3">
  <label class="control-label" for="Language">Language</label>
    <input id="Language" name="Language" type="text" placeholder="Enter the Language"
class="form-control input-md"
      required="">
</div>

<div class="col-md-3 mb-3">
  <label class="control-label" for="Subtitles">Subtitles</label>
    <input id="Subtitles" name="Subtitles" type="text" placeholder="Subtitles Language"
      class="form-control input-md" required="">
</div>
</div>
  <!-- Button -->
  <div class="form-group">
   <label class="col-md-4 control-label" for=""></label>
   <div class="col-md-4">
    <button id="" name="" class="btn btn-success">Submit</button>
   </div>
  </div>

 </fieldset>
</form>
```

6. Remove item

```
<form class="needs-validation" novalidate>
  <div class="form-row">
   <div class="col-md-6 mb-3">
     <label for="validationTooltip03">Topic</label>
     <input type="text" class="form-control" id="validationTooltip03" placeholder="Topic of book or DVD" required>
   </div>
   <div class="col-md-3 mb-3">
     <label for="validationTooltip04">ISBN</label>
     <input type="text" class="form-control" id="validationTooltip04" placeholder="ISBN" required>
   </div>
   <div class="col-md-3 mb-3">
     <label for="validationTooltip05">Type</label>
     <input type="text" class="form-control" id="validationTooltip05" placeholder="Book or DVD" required>
   </div>
  </div>
  <button class="btn btn-danger" type="submit">Remove Item</button>
</form>
```

7. Borrow item

```html
<form class="needs-validation" novalidate>
  <div class="form-row">
    <div class="col-md-4 mb-3">
      <label for="validationTooltip01">Reader's first name</label>
      <input type="text" class="form-control" id="validationTooltip01" placeholder="First name"
required>
    </div>

    <div class="col-md-4 mb-3">
      <label for="validationTooltip02">Reader's last name</label>
      <input type="text" class="form-control" id="validationTooltip02" placeholder="Last name"
required>
    </div>

    <div class="col-md-4 mb-3">
      <label for="validationTooltipUsername">UserID</label>
      <div class="input-group">
        <div class="input-group-prepend">
          <span class="input-group-text" id="validationTooltipUsernamePrepend">@</span>
        </div>
        <input type="text" class="form-control" id="validationTooltipUsername"
placeholder="Username"
          aria-describedby="validationTooltipUsernamePrepend" required>
      </div>
    </div>
  </div>

  <div class="form-row">
    <div class="col-md-6 mb-3">
      <label for="validationTooltip03">Item Title</label>
      <input type="text" class="form-control" id="validationTooltip03" placeholder="Book or DVD title"
required>
    </div>

    <div class="col-md-3 mb-3">
      <label for="validationTooltip04">ISBN</label>
      <input type="text" class="form-control" id="validationTooltip04" placeholder="ISBN" required>
    </div>

    <div class="col-md-3 mb-3">
```

```html
    <label for="validationTooltip05">Date of purchase</label>
    <input type="text" class="form-control" id="validationTooltip05" placeholder="Date" required>
   </div>
  </div>
  <button class="btn btn-primary" type="submit">Borrow</button>
</form>
```

8. Return item

```
<form class="needs-validation" novalidate>
  <div class="form-row">
    <div class="col-md-6 mb-3">
      <label for="validationTooltip03">Topic</label>
      <input type="text" class="form-control" id="validationTooltip03" placeholder="Topic of book or DVD" required>
    </div>
    <div class="col-md-3 mb-3">
      <label for="validationTooltip04">ISBN</label>
      <input type="text" class="form-control" id="validationTooltip04" placeholder="ISBN" required>
    </div>
    <div class="col-md-3 mb-3">
      <label for="validationTooltip05">Type</label>
      <input type="text" class="form-control" id="validationTooltip05" placeholder="Book or DVD" required>
    </div>
  </div>
  <button class="btn btn-primary" type="submit">Return Item</button>
</form>
```

9. Generate Report

HTML

```html
<p>
  >>>> Report Generation Completed <<<<
</p>
```

CSS

```css
p {
  text-align: center;
}
```

10. List items

```html
<div class="container">
 <div class="row">
  <div class="col-md-12">
   <h4>List of items</h4>
   <div class="table-responsive">

    <table id="mytable" class="table table-bordred table-striped">

     <thead>
     <th>Type</th>
     <th>ISBN</th>
     <th>Topic</th>
     <th>Author Details</th>
     <th>Publisher/Creator</th>
     <th>In</th>
     <th>Borrowed</th>
     </thead>
     <tbody>

     <tr>
      <td>Book</td>
      <td>2324DFFCS</td>
      <td>Object oriented JAVA</td>
      <td>Sashika Sandeepana</td>
      <td>ISDT india</td>
      <td><p data-placement="top" data-toggle="tooltip" title="Edit"><button class="btn btn-primary btn-xs" data-title="Edit" data-toggle="modal" data-target="#edit" ><span class="glyphicon glyphicon-pencil"></span></button></p></td>
      <td><p data-placement="top" data-toggle="tooltip" title="Delete"><button class="btn btn-danger btn-xs" data-title="Delete" data-toggle="modal" data-target="#delete" ><span class="glyphicon glyphicon-trash"></span></button></p></td>
     </tr>
     <tr>
      <td>Book</td>
      <td>we54d5s121</td>
      <td>MySQL</td>
      <td>Danu de silva</td>
      <td>Printing co</td>
      <td><p data-placement="top" data-toggle="tooltip" title="Edit"><button class="btn btn-primary btn-xs" data-title="Edit" data-toggle="modal" data-target="#edit" ><span class="glyphicon glyphicon-pencil"></span></button></p></td>
      <td><p data-placement="top" data-toggle="tooltip" title="Delete"><button class="btn btn-
```

```html
danger btn-xs" data-title="Delete" data-toggle="modal" data-target="#delete" ><span
class="glyphicon glyphicon-trash"></span></button></p></td>
     </tr>
     <tr>
      <td>Book</td>
      <td>sa564s8a</td>
      <td>AngularJs</td>
      <td>Robert w. perera</td>
      <td>T & A printing</td>
      <td><p data-placement="top" data-toggle="tooltip" title="Edit"><button class="btn btn-
primary btn-xs" data-title="Edit" data-toggle="modal" data-target="#edit" ><span class="glyphicon
glyphicon-pencil"></span></button></p></td>
      <td><p data-placement="top" data-toggle="tooltip" title="Delete"><button class="btn btn-
danger btn-xs" data-title="Delete" data-toggle="modal" data-target="#delete" ><span
class="glyphicon glyphicon-trash"></span></button></p></td>
     </tr>

     <tr>
      <td>DVD</td>
      <td>ds5d445</td>
      <td>Be a pro in photoshop cc 2019 </td>
      <td>Mark filtix</td>
      <td>Digital work production</td>
      <td><p data-placement="top" data-toggle="tooltip" title="Edit"><button class="btn btn-
primary btn-xs" data-title="Edit" data-toggle="modal" data-target="#edit" ><span class="glyphicon
glyphicon-pencil"></span></button></p></td>
      <td><p data-placement="top" data-toggle="tooltip" title="Delete"><button class="btn btn-
danger btn-xs" data-title="Delete" data-toggle="modal" data-target="#delete" ><span
class="glyphicon glyphicon-trash"></span></button></p></td>
     </tr>

     </tbody>

    </table>
   </div>

</div>
  </div>
</div>
```

11. App component HTML

```html
<meta name="viewport" content="width=device-width, initial-scale=1.0">

<app-navbar></app-navbar>
<app-main-menu></app-main-menu>

<div class="card cardcss">
  <div class="card-body">

    <router-outlet></router-outlet>
  </div>
</div>

<div class="card-footer footercss">
  <app-footer></app-footer>
</div>
```
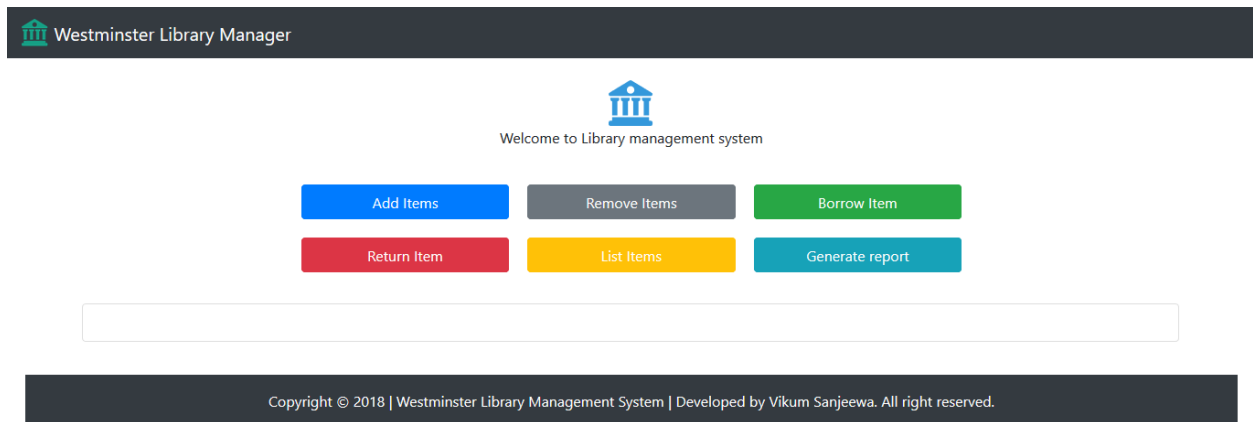
12. Index.html

```html
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>Westminster Library Management System</title>
  <base href="/">

  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="icon" type="image/x-icon" href="https://img.icons8.com/metro/52/3498db/library.png">

<!--Adding bootstrap -->
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css"
integrity="sha384-MCw98/SFnGE8fJT3GXwEOngsV7Zt27NXFoaoApmYm81iuXoPkFOJwJ8ERdknLPMO"
crossorigin="anonymous">
  <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"
integrity="sha384-ChfqqxuZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwEULTy"
crossorigin="anonymous"></script>
  <link href="//maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css" rel="stylesheet"
id="bootstrap-css">
  <script src="//maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>
  <script src="//code.jquery.com/jquery-1.11.1.min.js"></script>
  <link href="//maxcdn.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.min.css"
rel="stylesheet">

</head>
<body>
  <app-root></app-root>
  <router-outlet></router-outlet>
  <br>
  <br>
  <app-footer></app-footer>
</body>
</html>
```
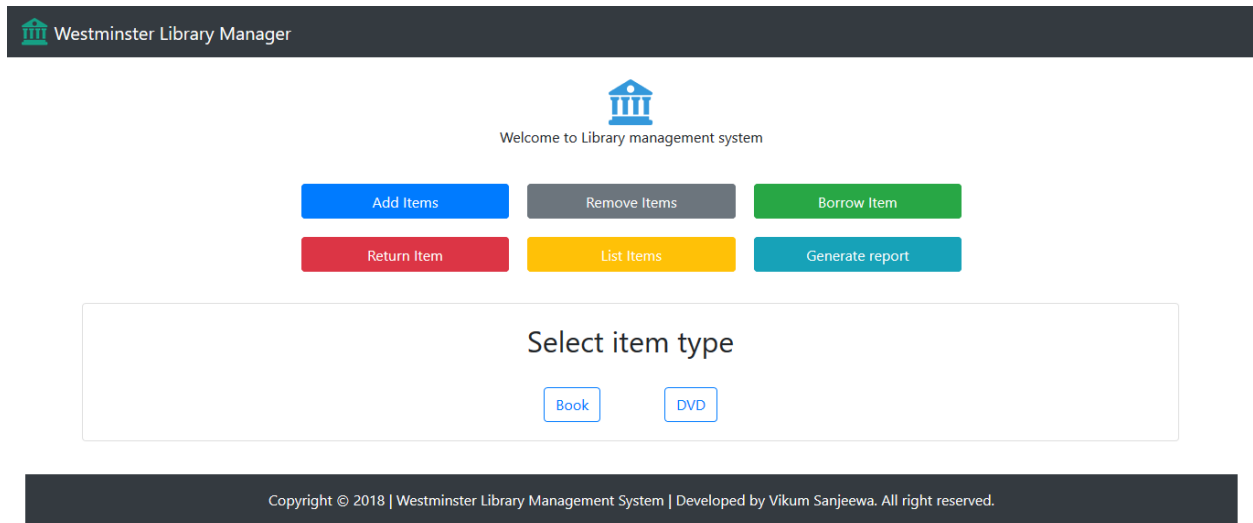
Screenshots

Main menu

Add item menu

Form to add books

🏛
Welcome to Library management system

Add Items	Remove Items	Borrow Item
Return Item	List Items	Generate report

Add a book

ISBN	Topic	Sector	Publish Date
Enter isbn of the book	Enter the topic	Enter the category	Enter the date of publish

Author Details	Publisher Details	NO of pages
Enter Author Details	Enter Publisher Details	no of pages

Submit

Form to add DVD

🏛
Welcome to Library management system

Add Items	Remove Items	Borrow Item
Return Item	List Items	Generate report

Add a DVD

ISBN	Topic	Sector	Publish Date
Enter isbn of the book	Enter the topic	Enter the category	Enter the date of publish

Actors Details	Producer Details	Language	Subtitles
Enter Actors Details	Enter Producer Details	Enter the Language	Subtitles Language

Submit

Remove item

Welcome to Library management system

| Add Items | Remove Items | Borrow Item |
| Return Item | List Items | Generate report |

Topic
ISBN
Type

Topic of book or DVD

ISBN

Book or DVD

Remove Item

Borrow item

Welcome to Library management system

| Add Items | Remove Items | Borrow Item |
| Return Item | List Items | Generate report |

Reader's first name
Reader's last name
UserID

First name

Last name

@ Username

Item Title
ISBN
Date of purchase

Book or DVD title

ISBN

Date

Borrow

Return item

Westminster Library Manager

Welcome to Library management system

| Add Items | Remove Items | Borrow Item |
| Return Item | List Items | Generate report |

| Topic | ISBN | Type |
| Topic of book or DVD | ISBN | Book or DVD |

Return Item

Generate report

Westminster Library Manager

Welcome to Library management system

| Add Items | Remove Items | Borrow Item |
| Return Item | List Items | Generate report |

>>>> Report Generation Completed <<<<

List items

Welcome to Library management system

Add Items	Remove Items	Borrow Item
Return Item	List Items	Generate report

List of items

Type	ISBN	Topic	Author Details	Publisher/Creator	In	Borrowed
Book	2324DFFCS	Object oriented JAVA	Sashika Sandeepana	ISDT india		
Book	we54d5s121	MySQL	Danu de silva	Printing co		
Book	sa564s8a	AngularJs	Robert w. perera	T & A printing		
DVD	ds5d445	Be a pro in photoshop cc 2019	Mark filtix	Digital work production		