RESPONSIVE MOBILE WEB APP

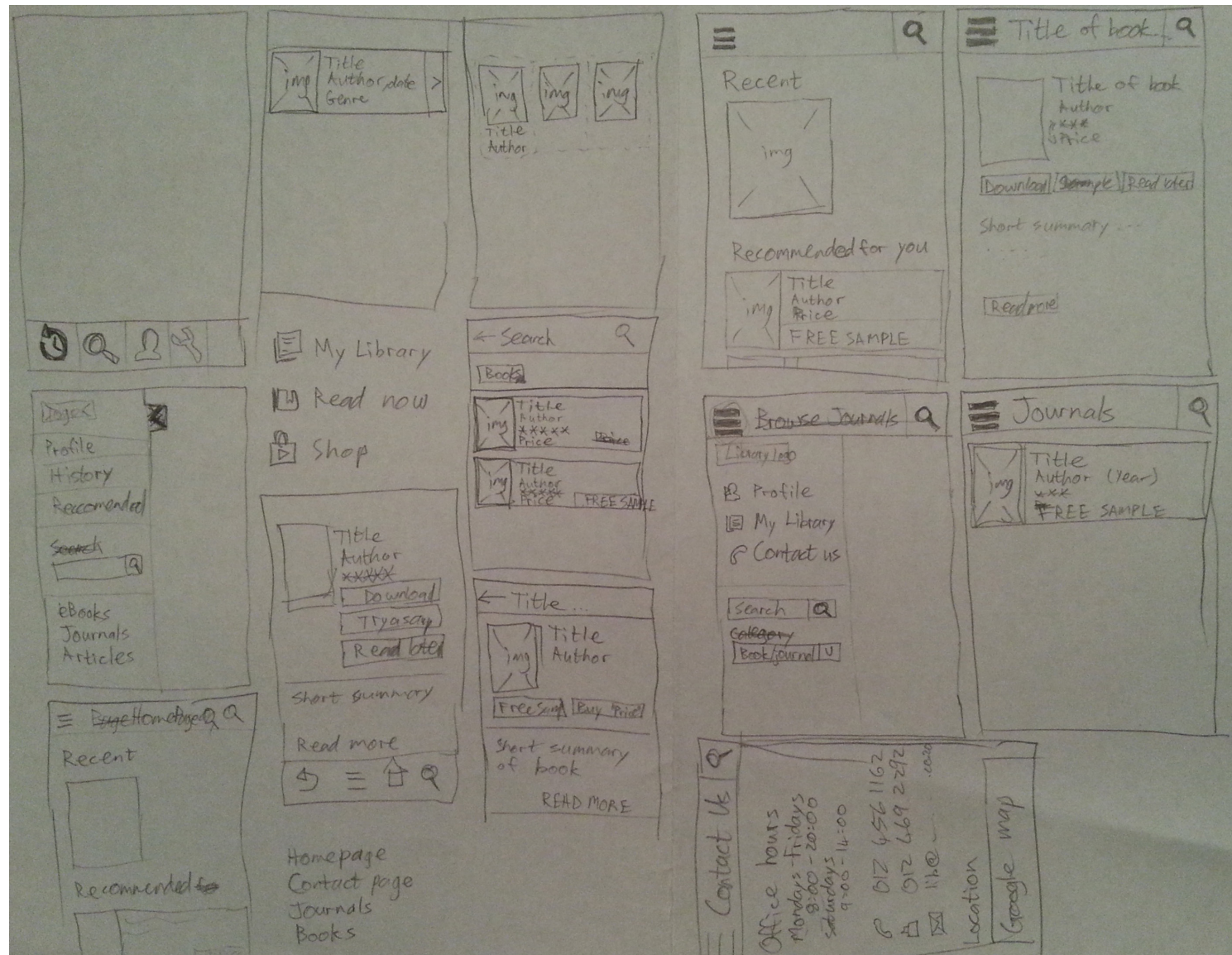## *MARILEEN DEGENAAR*
130002

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PROJECT SCOPE

A database website for a library where students can search for books and academic papers. On mobile devices, it functions as an application, and on desktops it looks like a website.

Languages, Technologies, Tools and Frameworks used

* Bootstrap: Mobile application and fully responsive website
* JSON web API: An API to get data from the database, filter data and inject the data into the HTML code of the website
* AngularJS: To consume the API in the HTML code
* PHP: To connect to a database and create the API

The design of the application is based on "Mobile first". It looks like a cellphone application, not a website, untill viewed on a desktop. A very clinical design style is implemented, focused on the functionality of the application.

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ORIGINAL AND ROUGH PLANNING

DATABASE

CODE SNIPLETS

.HTML

```
index.html  ×
Source  History

1   <!DOCTYPE html>
2   <html ng-app="lib">
3   <head>
4       <title>Library</title>
5       <meta charset="UTF-8">
6       <meta name="viewport" content="width=device-width, initial-scale=1.0">
7       <link rel="stylesheet" type="text/css" href="bootstrap/css/bootstrap.m
8       <script src="bootstrap/js/jquery-1.11.2.min.js"></script>
9       <script src="bootstrap/js/bootstrap.min.js"></script>
10      <link rel="stylesheet" type="text/css" href="css/custom.css">
11      <script src="scripts/angular.min.js" type="text/javascript"></script>
12      <script src="scripts/app.js" type="text/javascript"></script>
13  </head>
    <body ng-controller="HomeController as home">
        <section ng-controller="PanelController as panel">
16
17      <!-- NAVIGATION -->
18          <!-- Sidebar -->
19          <div id="wrapper" class="inactive">
20              <div id="sidebar-wrapper">
21                  <ul id="sidebar_menu" class="sidebar-nav">
22                      <li class="sidebar-brand"><a id="menu-toggle" href="#
23                  </ul>
24                  <ul class="sidebar-nav" id="sidebar">
                        <li ng-class='{ active:panel.isActive(0) }'><a ng-click=
                        <li ng-class='{ active:panel.isActive(1) }'><a ng-click=
                        <li ng-class='{ active:panel.isActive(2) }'><a ng-click=
                        <li ng-class='{ active:panel.isActive(3) }'><a ng-click=
                        <li ng-class='{ active:panel.isActive(4) }'><a ng-click=
30                  </ul>
31              </div>
32              <script>
33                  $("#menu-toggle").click(function(e) {
34                      e.preventDefault();
35                      $("#wrapper").toggleClass("active");
36                  });
37              </script>
38          </div>
39
40      <!-- Top-nav for XS and SM -->
41          <div class="hidden-md hidden-lg navbar navbar-inverse" role="navi
```

```
78  <!--0-Home page-->
79          <div class="panel" ng-show="panel.isActive(0)">
                <div ng-controller="BooksController as books" id="content" class="
                    <div ng-controller="FilterController as filter">
82                      <div class="col-xs-12" style="padding-top: 20px;">
83                          <h1>Recent</h1>
                            <div ng-repeat="book in (books.info | orderBy: 'title'
85                              <div class="col-xs-4 col-md-2" style="padding: 0;
86                                  <a ng-click="panel.changeTab(5)"><img ng-src="
87                                  <h2>{{book.title}}</h2>
88                              </div>
89                          </div>
90                      </div>
91                      <div class="col-xs-12" style="padding-top: 20px;">
92                          <h1>Recommended for you</h1>
                            <div ng-repeat="book in (books.info | orderBy: 'title')
94                              <div class="col-xs-3" style="padding: 0;">
95                                  <a ng-click="panel.changeTab(5)"><img ng-src="
96                              </div>
97                              <div class="col-xs-9">
98                                  <a ng-click="panel.changeTab(5)"><h1>{{book.ti
99                                  <h2>{{book.author}}</h2>
100                                 <p>{{book.rating}} / 5</p>
101                                 <a ng-click="panel.changeTab(5)">{{book.free}}<
102                             </div>
103                         </div>
104                     </div>
105                 </div>
106             </div>
107         </div>
108 <!--/0-Home page-->
    <!-- ------------------------------------------------------------
110 <!--1-My Library-->
111         <div class="panel" ng-show="panel.isActive(1)">
                <div ng-controller="BooksController as books" id="content" class="
                    <div ng-controller="FilterController as filter">
114                     <div class="col-xs-12" style="padding-top: 20px;">
115                         <h1>Recent</h1>
                            <div ng-repeat="book in (books.info | orderBy: 'title'
117                             <div class="col-xs-3" style="padding: 0;">
118                                 <a ng-click="panel.changeTab(5)"><img ng-src="
119                             </div>
120                             <div class="col-xs-9">
121                                 <a ng-click="panel.changeTab(5)"><h1>{{book.ti
122                                 <h2>{{book.author}}</h2>
```

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CODE SNIPLETS

DBCON.PHP

```php
15     public $recent;
16     public $recommend;
17  }
18
19  require 'Slim/Slim.php';
20  \Slim\Slim::registerAutoloader();
21
22  $app = new \Slim\Slim();
23
24
25  $app->get('/book', function () {
26
27      //DATABASE - mysql
28      $bookDBconnect = mysqli_connect("localhost","root","mysql","lib_db");
29      if (mysqli_connect_errno()) {
30          echo "Failed to connect to". mysqli_connect_error();
31      }
32      $result = mysqli_query($bookDBconnect,"SELECT * FROM books");
33
34      $results = array();
35      while ($row = mysqli_fetch_array($result))
36      {
37
38          $mybook = new Book;
39
40          $mybook->id = $row['id'];
41          $mybook->genre = $row['genre'];
42          $mybook->title = $row['title'];
43          $mybook->author = $row['author'];
44          $mybook->rating = $row['rating'];
45          $mybook->imgurl = $row['imgurl'];
46          $mybook->summary = $row['summary'];
47          $mybook->free = $row['free'];
48          $mybook->recent = $row['recent'];
49          $mybook->recommend = $row['recommend'];
50          //echo json_encode($mybook);
51
52          $results[] = $mybook;
53      }
54      echo json_encode($results);
55
56      // CLOSE THE DATABASE!
57      mysqli_close($bookDBconnect);
58  });
59
60  $app->run();
```
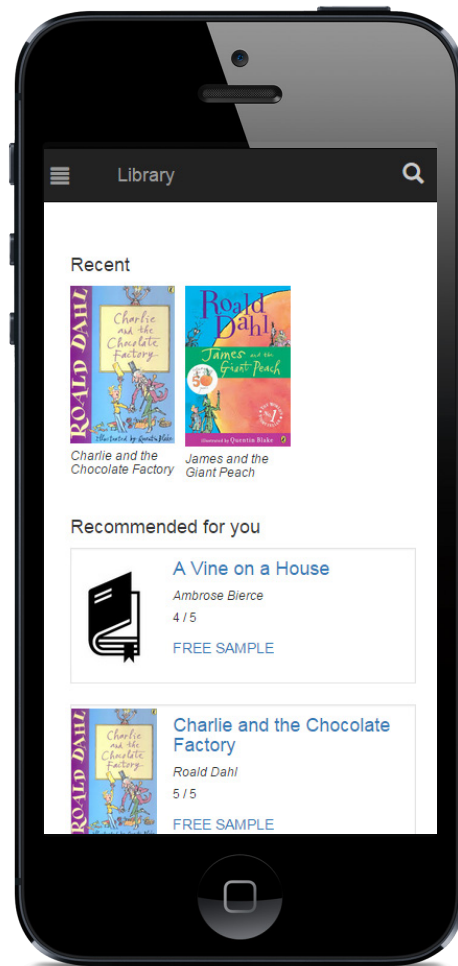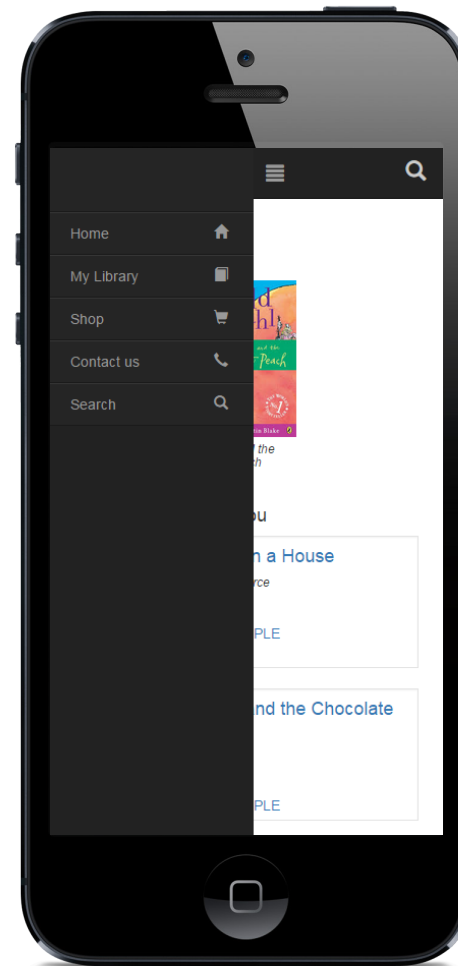
APP.JS

```javascript
20  app.controller('BooksController', ["$http", function($http)
21  {
22      var storage = this;
23
24      $http.get("http://localhost/idvProject6/scripts/dbcon.php/book").
25      {
26          storage.info = data;
27      });
28
29  }]);
30
31  app.controller('FilterController', function()
32  {
33
34      this.filter = "";
35      this.isGenre = function(genre) {
36          if (this.filter === "All")
37          {
38              return this.filter;
39          }
40          return this.filter === genre;
41      };
42
43      this.recentF = "1";
44      this.isRecent = function(recent){
45          if (this.recentF !== "1")
46          {
47              return this.recentF;
48          }
49          return this.recentF === recent;
50      };
51
52      this.recommendF = "1";
53      this.isRecommend = function(recommend) {
54          if (this.recommendF !== "1")
55          {
56              return this.recommendF;
57          }
58          return this.recommendF === recommend;
59      };
60
61  });
```
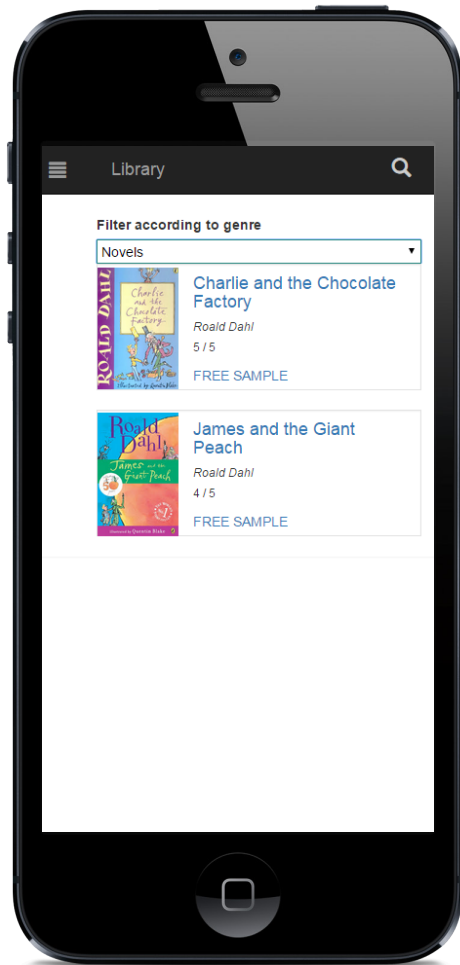
FINAL DESIGN - MOBILE (IN APPLICATION)
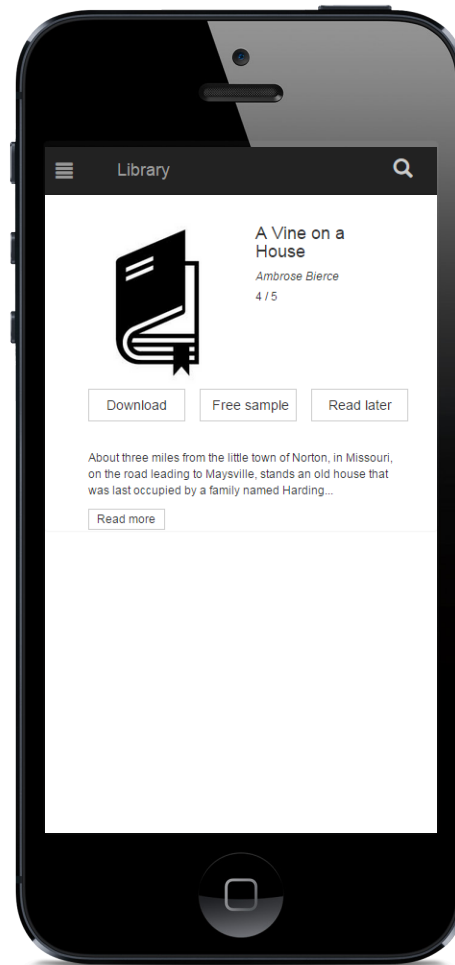
MENU CLOSED

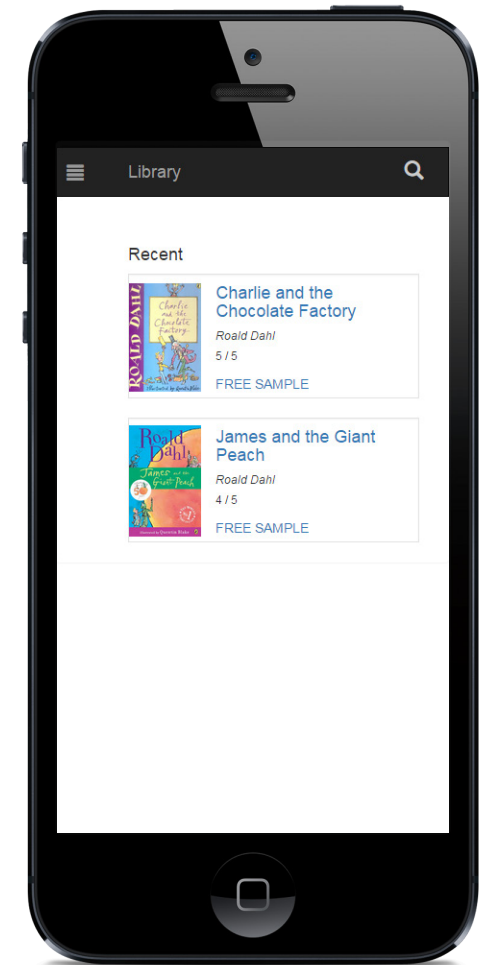## MENU OPEN

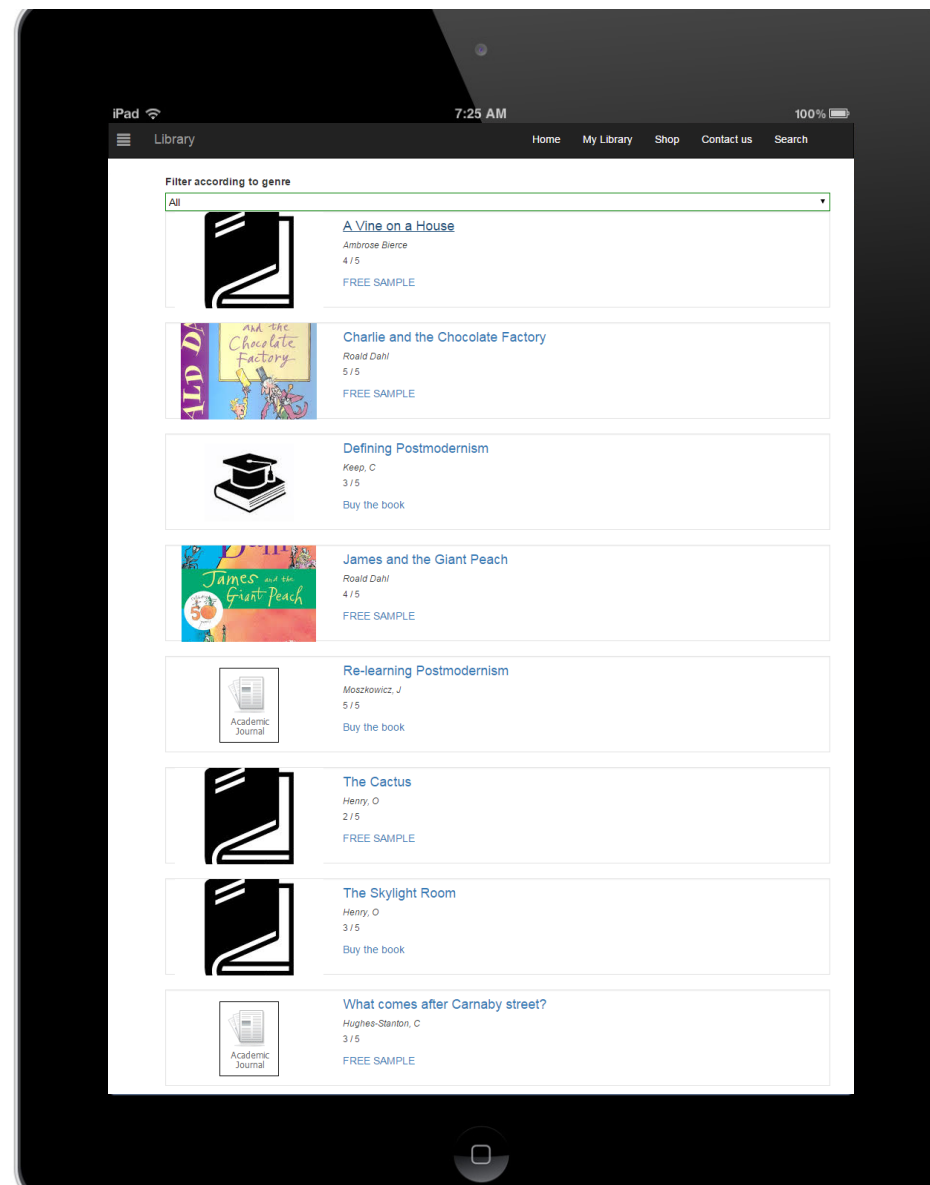# FINAL DESIGN - *MOBILE (IN APPLICATION)*

SHOP

SINGLE BOOK

MY LIBRARY

FINAL DESIGN - *TABLET (IN APPLICATION)*

FINAL DESIGN - *DESKTOP (IN APPLICATION)*