**Mobile Computing – iOS Fall’22**

**Section02 Exam02**

**70 Points**

**Please follow the following instructions to complete this assignment.**

1. Open Xcode from the launchpad of your Mac.
2. Click on create a new Xcode project. Select the iOS template and click on the App application.
3. Click on next which will prompt you to choose options for the project.
4. Provide product name as **LastnameExam02**, “**edu.nwmissouri**” for organization identifier, “**Storyboard**” as interface and “**Swift**” as the language.
5. Click on next and select an appropriate location to save your app and click on create. A project directory will be loaded.
6. From the project navigator click on “Main.storyboard” file, a blank mobile screen will be loaded, where the required fields for an app need to be added.

**The View**

2

1

**Graphical user interface, application

Description automatically generated**

Figure 1 The View

1. Design the view as shown in Fig. 1 and apply auto layout wherever required. Use “text.book.closed.fill” for the cell image view and book title image view.

Table 1 The View Controllers

|  |  |
| --- | --- |
| **Screen** | **View Controller** |
| 1 | BooksTVC |
| 2 | BookDetailVC |

1. Create classes as per Table 1 and assign them to proper view controllers in the storyboard.

**The Model**

Table 2 Test data for new arrivals

|  |  |  |  |
| --- | --- | --- | --- |
| **Title** | **Discount** | **Price** | **Image name** |
| Sea Of Tranquility | 10 | 89.95 | sot |
| Grumpy Monkey | 5 | 65 | gm |

Table 3 Test data for trending books

|  |  |  |  |
| --- | --- | --- | --- |
| **Title** | **Discount** | **Price** | **Image name** |
| Design of Everyday Things | 8 | 78.99 | doet |
| The Gathering | 3 | 50.99 | gathering |
| The Power of Moments | 25 | 37.89 | pom |

1. Create a Swift file called DataFile that has the following struct.



1. Load the test data given in Tables 2 and 3 using the structure Book.

**The Controller**

1. *BooksTVC*

Table 4: UI elements configuration for BooksTVC

|  |  |  |
| --- | --- | --- |
| **UI element** | **Purpose** | **Outlet/action name** |
| 1 Table View | To display a list of books | booksTV |

* 1. Create outlets/actions as mentioned in Table 2.
  2. Design and display a list of books in different sections as shown in the sample output.
  3. On tapping a book, perform a segue to BookDetailVC.

1. *BookDetailVC*

Table 5: UI elements configuration for BookDetailVC

|  |  |  |
| --- | --- | --- |
| **UI element** | **Purpose** | **Outlet/action name** |
| 1 UIImageView | To display book’s image | bookIV |
| 1 UIlabel | To display book’s title | bookTitleLBL |
| 1 UIlabel | To display price of the book | bookPriceLBL |
| 1 UIlabel | To display discount % of the book | bookDiscountLBL |
| 1UIlabel | To display the total cost | totalCostOfBookLBL |

* 1. Create outlets/actions as mentioned in Table 3.
  2. Design and display the selected book’s details along with the outstanding total.
  3. Outstanding total is the price after applying discount to the original price.

**Sample Output (Video Link):**

<https://app.vidgrid.com/view/Ba7g721By1hS>