**Assignment – 1**

**Aim :** In this assignment we are going to create an app which contains table view and multiple view controller. When we click on table cell the appropriate data should be displayed on the final screen.

1. Open Xcode in your Mac, Select App and click on next and give the name as LastName\_Tableview to the project and make sure to select the user interface as storyboard, and language as Swift. Click on next choose a folder from your mac to store the project. Give the app Display name as LastName\_Tableview.

2. After creating the project lets create a design for your first viewController.

3. Add a navigation controller to the main.storyboard using embed in from the editor tab.

4. In the **viewController**, add a label and a tableview and give constraints to the label as top = 30, left = 20, right = 20, height = 40 and also make the text alignment to center. Give the name of the label in attribute inspector of your choice based on the topic you choose.

5. Give constraints for the tableview as top = 0, left = 0, right = 0, bottom = 0. Now give the identifier to the cell as “cell”. Now while making a connection to the View Controller, give the name for the outlet as **tableView**. Graphical user interface

Description automatically generated

6. Now add an imageView and a label to the tableView cell. Increase the size of the default cell so that imageView and label fits click on the cell you can find a small square box at the bottom center drag the little square box the cell size gets increased. For the UIImageView give constraints as height = 100, width = 100, left = 12, make vertical center in container. Change the content mode in attribute inspector to aspect fill.

7. For the label give constraints left = 12, right = 12 and height 30, make vertical center in container. We are done with the design and the final design should look like below.

Graphical user interface, application

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8. Create a new file, select Cocoa Touch Class, and select next. Now give the class name as CellTableViewCell and give the subclass as UITableViewCell, language as swift and click next.

A screenshot of a computer

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9. Click on the tableView cell Now in the identity inspector of the cell, give the name of the class as “**CellTableViewCell**” and click return.

10. Add connections to the UIImageView and label of the cell in **CellTableViewCell** and give the name as “**viewImage**” and “**labelDisplay**” respectively and click connect.

11. Create a new viewController file. Create a new file, select Cocoa Touch Class, and select next. Now give the class name as **DetailViewController** and give the subclass as UIViewController, language as swift and click next.

12. Create a new viewContoller from the components library. Now in the identity inspector of the viewcontroller, give the name of the class as “**DetailViewController**”.

Graphical user interface

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13. Create a segue from the table view cell of **ViewController** to the **DetailViewController** and name the identifier as “**detailSegue**”.

14. Add a label and UIImageview. Give constraints for the label as top = 30, left = 20, right = 20, height = 40 and also make the text alignment to center and give the name for the outlet as “**displayLabel**” and for the UIImageView give the constraints as top = 0, left = 20, right = 20, height = 170. You can change the height according to your need give the name for the outlet as “**displayImage**”.

15. Add a button and give constraints as top = 30, left = 20, right = 20 and height = 40 and give name for the action outlet as “**onClickAction**”. When button is clicked respective content should be displayed in text view.

16. Add a textView and give constraints as top = 30, left = 20, right = 20 and height = 50. Now while making a connection to the textView in DetailViewController, give the name for the outlet as “**displayText**”.

17. Now we are done with the design part. Final design of **DetailViewController** should look as below

A screenshot of a phone

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18. In ViewController create an array of names and name it as **namesArray** and it should contain atleast 5 names.

19. Download images from browser of any 5 items which you have chosen for above names. Add the images to assests folder and create an array of image names and name it as **imageArray**.

20. Finally create an array of topic for above items and name it as topicsArray.

21. Now let’s populate the UITableView cell with image and name for UIImage and label respectively.

22. To avoid problem with image in tableView Cell use float value as 120 and the implementation is given below

func tableView(\_ tableView: UITableView, heightForRowAt indexPath: IndexPath) -> CGFloat {

return 120

}

23. When a cell is clicked in **viewController** respective data should be displayed in **DetailViewController.** Final app should look like the below images.

Graphical user interface, application

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Graphical user interface, application

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**Please submit your app as compressed file, your compressed files should contain**

**LastName\_Tableview folder and LastName\_Tableview.xcodeproj file. Please check**

**your submission by downloading the submitted file and rechecking in xcode.**