

### *iOS Course Assignments*

1. Get familiar with the xCode Environment and know how to use it.
2. Create 5 buttons on the screen and as the user taps on each button print the respective button name/no in the log. (Note: Use button tag feature)
3. Create a sample calculator, which does the following functionality
  - a. Addition
  - b. Subtraction
  - c. Multiplication
  - d. DivisionThe calculator must take input through only one text field.
4. Identify how to dismiss the keyboard that appears when we use the Text Field. Also dismiss the keyboard on click of DONE button in the keyboard.
5. Create a text field and enter values in the text field. Press a submit button. On click of submit button the values entered in the text field must be populated to an Label.
6. Create a text field and enter the following "DADA, SACHIN, VIRU, DHONI". On Click of SUBMIT button split the string into individual names.
7. Create 5 text fields and enter values in each text field. On click of SUBMIT button, add these values to an array and print them.
8. Get the system time and display it in a label. Display it every time the app enters the foreground state.
9. In the array created in Task 6, remove the 3<sup>rd</sup> object from the array.
10. Print the array created in Task 6 in ascending and descending order.
11. Use a Segmented control and create three options to select. Print the option selected by the user in a label as and when he selects one.
12. Load [www.apple.com](http://www.apple.com) in web view.
13. Use activity indicator till the page gets loaded in Task 12.
14. Identify the usage of UIPickerView and UIDatePicker and create samples.
15. Without using Interface Builder, create an UIView of 300x300 size. Below that place 10 buttons one below the other. All these components must exist inside an UI scroll view.

16. Explore on Apple Guidelines on creating applications. Ensure it is being followed in the coming samples.
17. Create a Tab bar project from empty application template.
18. In Task 17, extend the same project so that there should be 10 tab items.
19. Create a Navigation based project from empty application template.
20. In Task 19, enter the details of the person (Age, Name, DOB, Phone Number) in text fields in first page. On click of submit button view the details in next page.
21. Explore and create a Universal application. Prepare yourself on explaining how a universal application works.
22. Create a Tab Bar based application whose first tab must host a navigation based view controller. Replicate the Task 17, in the first tab.
23. Explore the usage of page-based application and try creating a page-based application from empty application.
24. Create a Table view from a UIViewController by manually extending the delegate (Do not use UITableViewController).
25. In Task 20, on the second page display the details entered in first page in a table view format.
26. Create a custom cell and use it in a table view. The Custom cell must show a image about a film, Its title, Its subtitle and date of release also.
27. Create a Navigation based application. The first page must show a table view listing the various search services like yahoo, Bing, avg search etc. Based on the selection of the row the second page must load the respective site in the web view.
28. Extend Task 27; to be the seventh tab in a tab based application.
29. Establish a connection to [www.google.com](http://www.google.com) and identify how many bytes of data are received.
30. Parse the sample XML service given.
31. Parse the sample JSON service given.

32. Download the pdf from the below link  
<https://developer.apple.com/library/ios/releasenotes/General/WhatsNewIniPhoneOS/WhatsNewIniPhoneOS.pdf>

Split the pdf into page via <http://www.splitpdf.com>

Now create a Book Application which uses the pdf that is split and the ambience must be as if the user is flipping through the pages.

33. Create a Map Based Application that drops pins on 15 countries in a world map.
34. Extend Task 33 to fetch the details of the country (Country Name, Latitude and Longitude) and drop annotations accordingly.
35. Extend Task 34 to create a holiday calendar.

On tap of a particular pin show the country name with a button on the details view of the annotation. On click of the button Go to the next page which shows a grouped table view listing the months of a year.

On selecting a particular month pull the data from the database, which gives the national holidays in that particular month in the selected country.

Note: Use SQLite DB for database.

36. Create a pList File and add data to the plist by taking input from the user through a text field. There must be a done button on the top of the navigation bar on click of which it must navigate to the second screen where the data in the pList is being displayed in a table view.

37. Student Database Application

Create login page and sign up page. The user credentials for teacher and principal must be stored in a pList against which the entered credentials must be verified.

If the user credentials is for teacher create user interface to insert marks of each student along with his first and last name. Store this details in the Data Base (SQLite) . Should order in Rank vice. Store first and last name in single column called name.

If the user logged in is principal show him a list of students with their rank, result (pass/fail), total marks and percentage obtained in a table view.

38. Create an NSDictionary and insert values into it using an user interface accepting the user input values.
39. Convert an NSDictionary created in Task 38 to NSMutableDictionary.

40. Extending Task 38, Print the values for a particular key in log. The key must be entered by the user in a text field and on press of submit button.
41. Create an NSArray and insert values into it. Swap the object in third place to second place, second place to first place and first place to third place.
42. Create a NSString "Hello ! How are you?" Remove the spaces between the words and print it in log.

43. Create a NSArray with items listed below:

Sachin  
Saurav  
Dada  
Dhoni  
Viru  
Raina  
Morkel  
Cricket  
Saurav  
Sachin  
Badri  
Yuvi  
Bhajji  
Gauti  
Umesh  
Yusuf  
Gauti

Identify the values that are same and create another array and insert only distinct values.

44. Identify how to check whether an object is an NSArray and represent it with a sample.
45. Check whether the following String "Cricket is a *bat-and-ball* game played between two teams of 11 players on a *field*, at the centre of which is a rectangular 22-yard long *pitch*. One team *bats*, trying to score as many *runs* as possible while the other team *bowls* and *fields*, trying to *dismiss* the batsmen and thus limit the runs scored by the batting team. A run is scored by the striking batsman hitting the ball with his bat, running to the opposite end of the pitch and touching the *crease* there without being dismissed. The teams switch between batting and fielding at the end of an *innings*."

Check the number of occurrences of "The" in the above paragraph and print it in log.