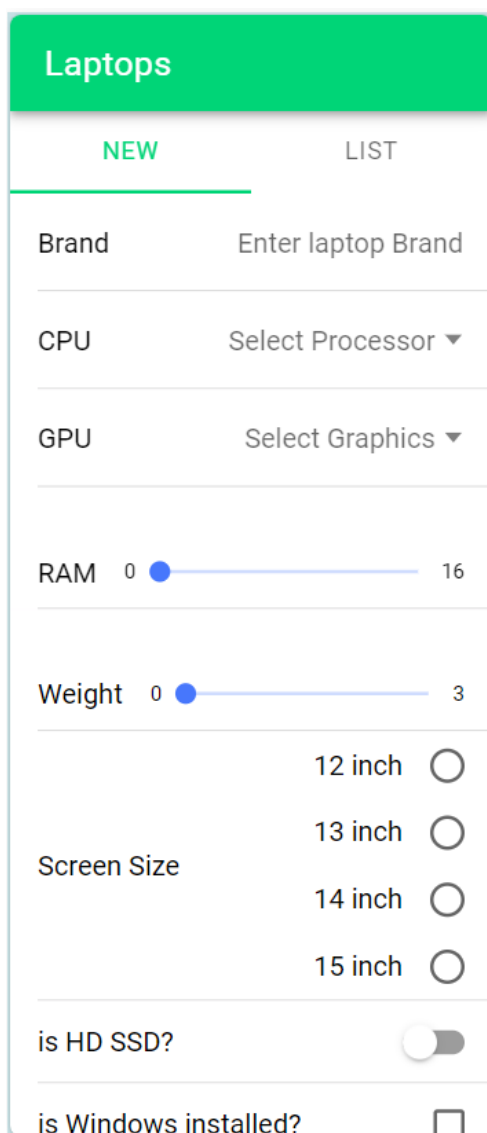


Topics (Slide 02: UI Components)

Duration: 1 Hour 30 mins

UI: Input, label, button, items, list, icons, alerts, select, range, radio, checkbox, toggle, datetime, segmented buttons.

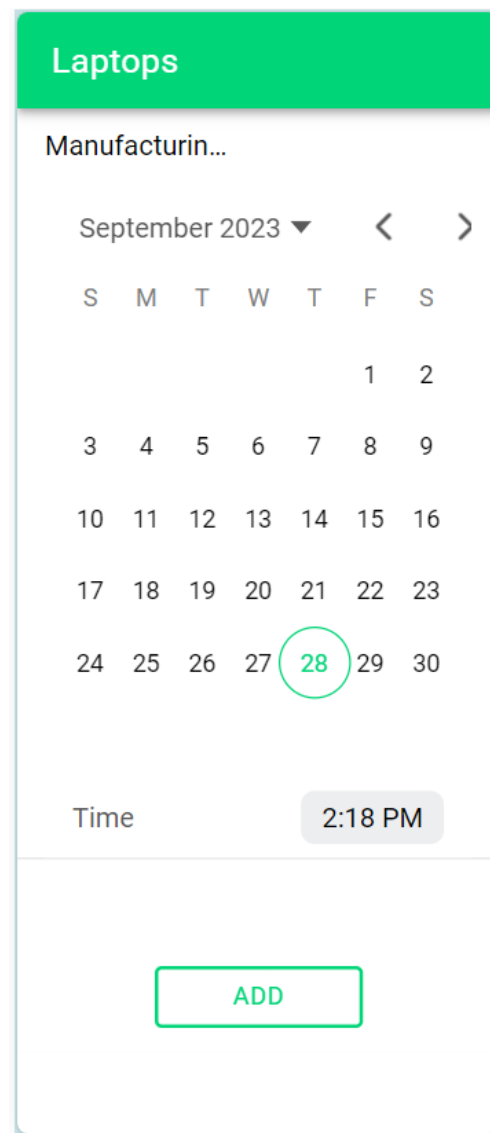
In this tutorial, you will create a form to fill laptop information, and then insert the record in an array. Then display laptop information stored in the array as a list.



The image shows a mobile application interface for adding a new laptop. At the top is a green header with the text "Laptops". Below the header are two tabs: "NEW" (highlighted in green) and "LIST". The form contains several input fields and controls:

- Brand:** A text input field with the placeholder text "Enter laptop Brand".
- CPU:** A dropdown menu with the text "Select Processor".
- GPU:** A dropdown menu with the text "Select Graphics".
- RAM:** A range slider with a blue dot, ranging from 0 to 16.
- Weight:** A range slider with a blue dot, ranging from 0 to 3.
- Screen Size:** A list of radio buttons with options: "12 inch", "13 inch", "14 inch", and "15 inch".
- is HD SSD?:** A toggle switch, currently turned off.
- is Windows installed?:** A checkbox, currently unchecked.

Figure 1: Home Page View



The image shows the same mobile application interface after scrolling down. The "Laptops" header is still at the top. Below it is a section titled "Manufacturin..." (likely "Manufacturing Date"). This section contains a date picker showing "September 2023" with navigation arrows. Below the date picker is a calendar grid with days of the week (S, M, T, W, T, F, S) and dates. The date "28" is highlighted with a green circle. Below the calendar is a "Time" label and a time picker showing "2:18 PM". At the bottom of the form is a green button with the text "ADD".

Figure 2: Home Page view after Scrolling down

Requirements (Step-by-Step):

1. Define a new data type as follows:

```
laptop {  
    Brand:    String,  
    CPU:      String,  
    GPU:      String,  
    RAM:      Number,  
    Weight:   Number,  
    Screen:   Number,  
    Storage:  boolean,  
    OS:       boolean,  
    ManuDate: Date  
}
```

2. Change the toolbar title to '**Laptops**' and its color.
3. Add **input** box to enter laptop **Brand** name.
4. Add **select component** to set the laptop CPU processor. The user is offered four choices and must select a value from [**intel i7, intel i5, intel i3, AMD**]. Display the select options as an **action-sheet**.
5. Add **select component** to set the laptop GPU processor. The user is offered again four choices and must select a value from [**Apple M2 Pro, intel Iris, AMD Radeon, NVidia GeForce**]. Display the select options as an **action-sheet**.
6. Add a **range** component to determine the RAM value. The values should range from 0 to 16 with 1 increment. Enable the pin value (**[pin]='true'**) to show the current range value. Optional, display the current range value.
7. Add a **range** component to determine the Weight value. The values should range from 0 to 3 with 0.5 increment. Enable the pin value (**[pin]='true'**) to show the current range value. Optional, display the current range value.
8. Add a **Radio** component to allow selection of screen size. The user should be able to select from the following values (12 inch, 13 inch, 14 inch, and 15 inch).
9. Add a **toggle** component to set the HDD value to true or false.
10. Add a **checkbox** component to set the OS value to true or false.
11. Add a **Datetime** component to set the manufacturing date.

12. Add a **button** titled '**Add**' to insert a new record of type '**Laptop**' into an array '**List**' filled with the above set data in components. Display a confirmation alert message.
13. Add a segmented button component with two buttons: **New** and **List**. Clicking the **New** button will display the above form of input.
14. Clicking the **List segmented button** will display all entries in array List. Display each entry as **ion-accordion-group** with the **Brand** name as the header value and if accordion is expanded then display all other information.
15. Swipe the List element to left to display **delete** button. Clicking the delete button removes the element from array list (and the view). You may use the method **Splice** and passing the index of item to be removed.
16. **Optional**. Swipe the List element to right to display **Edit** button. Clicking the Edit button will show an alert message box with laptop inputs to edit the selected list element values. The **alert** message box should contain: Brand input box, button '**OK**' and button '**Cancel**'. Show two buttons [OK and Cancel] in the alert. The Ok will accept the changes, while the cancel will reject the changes.
 - Specify a **header**
 - Specify a **message**: 'Edit'
 - Determine two **buttons** ['ok', 'Cancel'].
 - Specify **input** of new Brand name.
 - Handler? To handle the clicking of buttons.
17. **Optional**: Edit at least 5 other component values in the alert message box.

Example

The screenshot shows the 'Laptops' app interface. At the top is a green header with the text 'Laptops'. Below the header are two tabs: 'NEW' (highlighted in green) and 'LIST'. The form contains the following fields and values:

- Brand: Dell
- CPU: intel i5 (with a dropdown arrow)
- GPU: NVIDIA GeForce (with a dropdown arrow)
- RAM: 0 to 16 (with a slider bar)
- Weight: 0 to 3 (with a slider bar)
- Screen Size: 12 inch, 13 inch, 14 inch (selected with a blue dot), 15 inch (with radio buttons)
- is HD SSD?: (with a green toggle switch)
- is Windows installed?: (with a green checkmark)

Figure 3: Filled Form

The screenshot shows the 'Laptops' app interface after the 'ADD' button has been clicked. A white confirmation dialog box is displayed in the center of the screen. The dialog box contains the following text:

- Title: Add Confirmation
- Message: New laptop record added
- Action: OK (in blue text)

The background of the app is dimmed, showing the 'Laptops' header, a 'Manufacturin...' label, a calendar for May 2021, and a time display of 2:50 PM.

Figure 4: Add button clicked

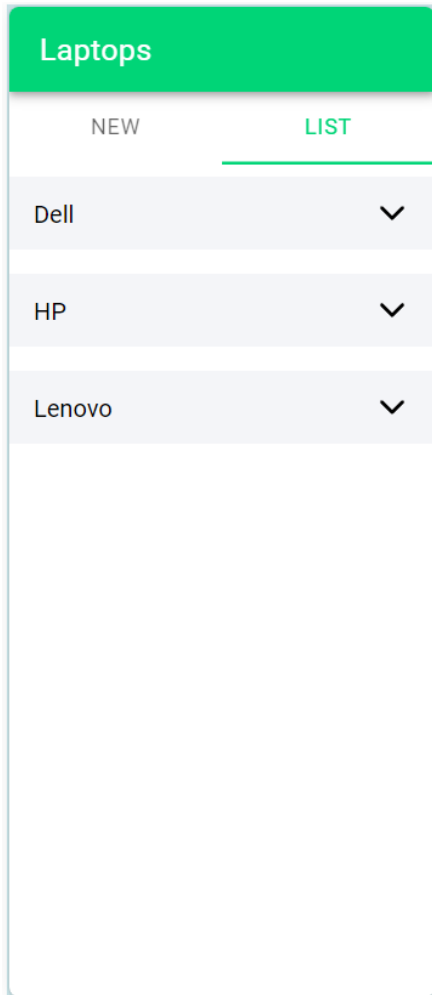


Figure 5: Button List clicked

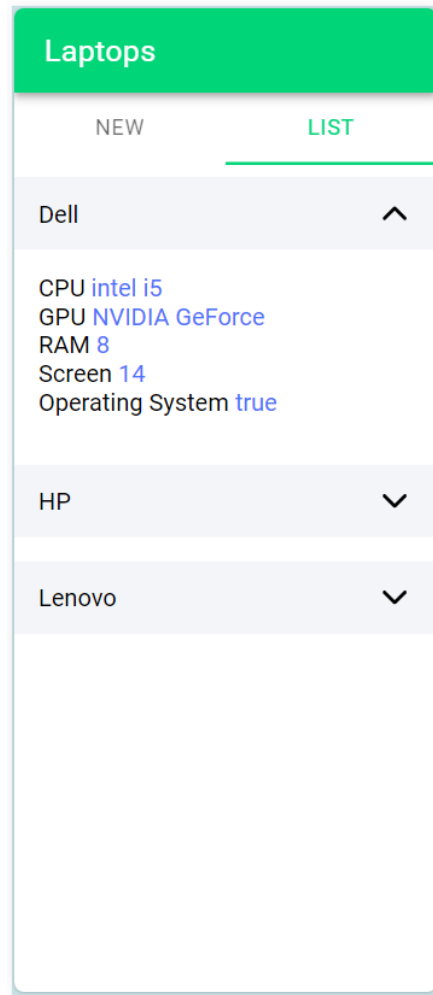


Figure 6: Accordion arrow expanded