```
I added only few screenshots .you can find the whole code here--->
index.html---->
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    link
      href="https://fonts.googleapis.com/css?family=Open+Sans:100,300,400,600"
      rel="stylesheet"
      type="text/css"
    />
    k
      href="http://code.ionicframework.com/ionicons/2.0.1/css/ionicons.min.css"
      rel="stylesheet"
      type="text/css"
    />
    <link type="text/css" rel="stylesheet" href="style.css" />
    <title>Monthly Budget App</title>
  </head>
  <body>
    <div class="top">
      <div class="budget">
        <div class="budget title">
          Available Budget in <span class="budget title--month">%Month%</span>:
        </div>
        <div class="budget value">+ 2,345.64</div>
        <!--Just a basic assumption value-->
        <div class="budget income clearfix">
          <div class="budget__income--text">Income</div>
          <div class="right">
            <div class="budget__income--value">+ 4,300.00</div>
            <div class="budget income--percentage">&nbsp;</div>
          </div>
        </div>
        <div class="budget expenses clearfix">
          <div class="budget expenses--text">Expenses</div>
          <div class="right clearfix">
            <div class="budget expenses--value">- 1,954.36</div>
            <div class="budget__expenses--percentage">45%</div>
```

```
</div>
        </div>
      </div>
    </div>
    <div class="bottom">
      <div class="add">
        <div class="add__container">
          <select class="add__type">
            <option value="inc" selected>+</option>
            <option value="exp">-</option>
          </select>
          <input</pre>
            type="text"
            class="add description"
            placeholder="Add description"
          />
          <!--Use 'Numeric' instead of 'number'-->
          <input type="numeric" class="add__value" placeholder="Value" />
          <button class="add btn">
            <i class="ion-ios-checkmark-outline"></i></i>
          </button>
        </div>
      </div>
      <div class="container">
        <div class="income">
          <h2 class="icome title">Income</h2>
          <div class="income list">
            <!--
                        <div class="item clearfix" id="income-0">
                            <div class="item description">Salary</div>
                            <div class="right clearfix">
                                 <div class="item__value">+ 2,100.00</div>
                                 <div class="item delete">
                                     <button class="item delete--btn"><i</pre>
class="ion-ios-close-outline"></i></button>
                            </div>
                        </div>
                        <div class="item clearfix" id="income-1">
                            <div class="item description">Sold car</div>
                            <div class="right clearfix">
                                 <div class="item value">+ 1,500.00</div>
                                 <div class="item__delete">
                                     <button class="item__delete--btn"><i</pre>
class="ion-ios-close-outline"></i></button>
```

```
</div>
                            </div>
                        </div>
                        -->
          </div>
        </div>
        <div class="expenses">
          <h2 class="expenses__title">Expenses</h2>
          <div class="expenses__list">
            <!--
                        <div class="item clearfix" id="expense-0">
                             <div class="item description">Apartment rent</div>
                             <div class="right clearfix">
                                 <div class="item__value">- 900.00</div>
                                 <div class="item__percentage">21%</div>
                                 <div class="item__delete">
                                     <button class="item__delete--btn"><i</pre>
class="ion-ios-close-outline"></i></button>
                                 </div>
                            </div>
                        </div>
                        <div class="item clearfix" id="expense-1">
                             <div class="item__description">Grocery shopping</div>
                             <div class="right clearfix">
                                 <div class="item__value">- 435.28</div>
                                 <div class="item__percentage">10%</div>
                                 <div class="item_ delete">
                                     <button class="item delete--btn"><i</pre>
class="ion-ios-close-outline"></i></button>
                                 </div>
                            </div>
                        </div>
                        -->
          </div>
        </div>
      </div>
    </div>
    <script src="app.js"></script>
    <!--JavaScript Application-->
  </body>
</html>
```

```
style.css---->
* {
   margin: 0;
    padding: 0;
    box-sizing: border-box;
}
.clearfix::after {
   content: "";
    display: table;
   clear: both;
}
body {
    color:lightslategrey;
    font-family: Open Sans;
    font-size: 16px;
    position: relative;
    height: 100vh;
    font-weight: 400;
}
.right { float: right; }
.red { color: #FF5049 !important; }
.red-focus:focus { border: 1px solid #FF5049 !important; }
/***** TOP PART*********/
.top {
   height: 40vh;
    background-image: linear-gradient(rgba(0, 0, 0, 0.35), rgba(0, 0, 0.35)),
url(back.png);
    background-size: cover;
    background-position: center;
    position: relative;
}
.budget {
    position: absolute;
    width: 350px;
    top: 50%;
    left: 50%;
    transform: translate(-50%, -50%);
    color: #fff;
}
```

```
.budget__title {
    font-size: 18px;
    text-align: center;
    margin-bottom: 10px;
    font-weight: 300;
}
.budget__value {
    font-weight: 300;
    font-size: 46px;
    text-align: center;
    margin-bottom: 25px;
    letter-spacing: 2px;
}
.budget__income,
.budget__expenses {
    padding: 12px;
    text-transform: uppercase;
}
.budget income {
    margin-bottom: 10px;
    background-color: #28B9B5;
}
.budget__expenses {
    background-color: #FF5049;
}
.budget__income--text,
.budget__expenses--text {
    float: left;
    font-size: 13px;
    color: #444;
    margin-top: 2px;
}
.budget__income--value,
.budget expenses--value {
    letter-spacing: 1px;
    float: left;
}
.budget__income--percentage,
.budget__expenses--percentage {
    float: left;
    width: 34px;
    font-size: 11px;
    padding: 3px 0;
```

```
margin-left: 10px;
}
.budget__expenses--percentage {
   background-color: rgba(255, 255, 255, 0.2);
   text-align: center;
   border-radius: 3px;
}
/*** BOTTOM PART********/
/**** FORM *****/
.add {
   padding: 14px;
   border-bottom: 1px solid #e7e7e7;
   background-color: #f7f7f7;
}
.add container {
   margin: 0 auto;
   text-align: center;
}
.add__type {
   width: 55px;
   border: 1px solid #e7e7e7;
   height: 44px;
   font-size: 18px;
   color: inherit;
   background-color: #fff;
   margin-right: 10px;
   font-weight: 300;
   transition: border 0.3s;
}
.add__description,
.add value {
   border: 1px solid #e7e7e7;
   background-color: #fff;
   color: inherit;
   font-family: inherit;
   font-size: 14px;
   padding: 12px 15px;
   margin-right: 10px;
   border-radius: 5px;
   transition: border 0.3s;
}
```

```
.add__description { width: 400px;}
.add__value { width: 100px;}
.add btn {
    font-size: 35px;
    background: none;
    border: none;
    color: #28B9B5;
    cursor: pointer;
    display: inline-block;
    vertical-align: middle;
    line-height: 1.1;
    margin-left: 10px;
}
.add__btn:active { transform: translateY(2px); }
.add__type:focus,
.add__description:focus,
.add__value:focus {
    outline: none;
    border: 1px solid #28B9B5;
}
.add__btn:focus { outline: none; }
/**** LISTS ****/
.container {
    width: 1000px;
    margin: 60px auto;
}
.income {
    float: left;
    width: 475px;
    margin-right: 50px;
}
.expenses {
    float: left;
    width: 475px;
}
h2 {
    text-transform: uppercase;
```

```
font-size: 18px;
   font-weight: 400;
   margin-bottom: 15px;
}
.icome__title { color: #28B9B5; }
.expenses title { color: #FF5049; }
.item {
   padding: 13px;
   border-bottom: 1px solid #e7e7e7;
}
.item:first-child { border-top: 1px solid #e7e7e7; }
.item:nth-child(even) { background-color: #f7f7f7; }
.item__description {
   float: left;
}
.item value {
   float: left;
   transition: transform 0.3s;
}
.item__percentage {
   float: left;
   margin-left: 20px;
   transition: transform 0.3s;
   font-size: 11px;
   background-color: #FFDAD9;
   padding: 3px;
   border-radius: 3px;
   width: 32px;
   text-align: center;
}
.income .item__value,
.income .item__delete--btn {
   color: #28B9B5;
}
.expenses .item__value,
.expenses .item__percentage,
.expenses .item__delete--btn {
   color: #FF5049;
}
.item__delete {
```

```
float: left;
}
.item__delete--btn {
    font-size: 22px;
    background: none;
    border: none;
    cursor: pointer;
    display: inline-block;
    vertical-align: middle;
    line-height: 1;
    display: none;
}
.item__delete--btn:focus { outline: none; }
.item__delete--btn:active { transform: translateY(2px); }
.item:hover .item__delete--btn { display: block; }
.item:hover .item__value { transform: translateX(-20px); }
.item:hover .item percentage { transform: translateX(-20px); }
.unpaid {
    background-color: #FFDAD9 !important;
    cursor: pointer;
    color: #FF5049;
}
.unpaid .item__percentage { box-shadow: 0 2px 6px 0 rgba(0, 0, 0, 0.1); }
.unpaid:hover .item description { font-weight: 900; }
app.js(javascript)---->
// BUDGET CONTROLLER MODULE
var budgetController = (function() {
    var Expense = function(id, description, value) {
```

```
this.id = id;
        this.description = description;
        this.value = value;
        this.percentage = -1; // before it is defined, initialise to -1, set to -1
to show that it is non-existent
    };
    // used to calculate the percentage
    Expense.prototype.calcPercentage = function(totalIncome) {
        if (totalIncome > 0) {
            this.percentage = Math.round((this.value / totalIncome) * 100)
        } else {
            this.percentage = -1;
    };
    Expense.prototype.getPercentage = function() {
        return this.percentage;
    }
    var Income = function(id, description, value) {
        this.id = id;
        this.description = description;
        this.value = value;
    };
    // calculate total expenses or total incomes
    var calculateTotal = function(type) {
        var sum = 0; // initial sum
        data.allItems[type].forEach(function(cur) {
            sum += cur.value;
        });
        data.totals[type] = sum;
    }
    var data = {
        allItems: {
            exp: [],
            inc: []
    },
    totals: {
        exp: 0,
        inc: 0
    },
```

```
budget: 0,
   percentage: -1
};
return {
   addItem: function(type, des, val) {
        var newItem, ID;
        // Create new ID then create new item based on 'inc' or 'exp' type
       if (data.allItems[type].length > 0) {
            ID = data.allItems[type][data.allItems[type].length - 1].id + 1;
       } else {
           ID = 0;
       }
        // That we put either in expense or income arrays for the allItems
        // How can we specify the ID for each new item?
        // ID = last ID + 1
        if (type === 'exp') {
            newItem = new Expense(ID, des, val);
        } else if (type === 'inc') {
            newItem = new Income(ID, des, val);
        }
        data.allItems[type].push(newItem);
        return newItem;
   },
   deleteItem: function(type, id) {
        var ids, index;
        // map RETURNS A BRAND NEW ARRAY (different to foreach)
        ids = data.allItems[type].map(function(current) {
            return current.id;
        });
        index = ids.indexOf(id); // get the id
        if (index !== -1) { // if index is not -1 then we want to delete it
            // splice is used to delete element
            data.allItems[type].splice(index, 1);
            // removes elements at the number INDEX
        }
```

```
},
   calculateBudget: function() {
        // Calculate total income and expenses
        calculateTotal('exp');
        calculateTotal('inc');
        // Calculate the budget: income - expenses
        data.budget = data.totals.inc - data.totals.exp;
        // Calculate the percentage of income that we spent
        if (data.totals.inc > 0 ) {
            data.percentage = Math.round((data.totals.exp / data.totals.inc) *
100);
        } else {
            data.percentage = -1; // no percentage to calculate
    },
   calculatePercentages: function() {
        //get expense array and go through the array
        data.allItems.exp.forEach(function(cur) {
            cur.calcPercentage(data.totals.inc);
        })
   },
   getPercentages: function() {
        var allPerc = data.allItems.exp.map(function(cur) {
            return cur.getPercentage(); // return result of get percentage method
        }); // map returns osmething and stores it intot he variable while for each
does not
        return allPerc;
    },
   getBudget: function() {
        return {
            budget: data.budget,
            totalInc: data.totals.inc,
            totalExp: data.totals.exp,
            percentage: data.percentage
        }
    },
   // console.logs data structure since it is private
    // PUBLIC METHOD TO EXPOSE INTERNAL DATA
```

```
testing: function() {
        console.log(data);
   }
}
})();
// UI MODULE
var UIController = (function() {
   var DOMstrings = {
        inputType: '.add__type',
        inputDescription: '.add__description',
        inputValue: '.add value',
        inputBtn: '.add__btn',
        incomeContainer: '.income__list',
        expensesContainer: '.expenses__list',
        budgetLabel: '.budget__value',
        incomeLabel: '.budget__income--value',
        expensesLabel: '.budget__expenses--value',
        percentageLabel: '.budget expenses--percentage',
        container: '.container',
        expensesPercLabel: '.item__percentage',
        dateLabel: '.budget__title--month'
   };
   var formatNumber = function(num, type) {
        var numSplit, int, dec;
        num = Math.abs(num);
        num = num.toFixed(2); // method to keep 2 dec numbers(0.00)
        // split number into int part and decimal part
        numSplit = num.split('.')
        int = numSplit[0];
        if (int.length > 3) {
            int = int.substr(0, int.length - 3) + ',' + int.substr(int.length - 3,
3); // start at position 0 and read 1 element
            // Then start at position 1 and read 3 numbers
        dec = numSplit[1];
        type === 'exp' ? sign = '-' : sign = '+';
        // return the string altogether (operator first)
        return (type === 'exp' ? sign = '-' : sign = '+') + ' ' + int + '.' + dec;
```

```
};
   // FIRST CLASS FUNCTION -- GO OVER THIS PART!
    var nodeListForEach = function(list, callback) {
        // for loop that for each interation will call our callback function
        for (var i = 0; i < list.length; i++) {</pre>
            callback(list[i], i); // first class functions
        }
    };
    // method to get input
    // needs to be used in other controller so will be public method
    return {
        getInput: function() {
            return { // return these 3 properties
                type: document.querySelector(DOMstrings.inputType).value, // Will
be either inc or exp
                description:
document.querySelector(DOMstrings.inputDescription).value,
                value:
parseFloat(document.querySelector(DOMstrings.inputValue).value)
            }
        },
        addListItem: function(obj, type) { // type is income or expense
            var html, newHtml, element;
            // create html string witj placeholder text
            if (type === 'inc') {
                element = DOMstrings.incomeContainer;
                html = '<div class="item clearfix" id="inc-%id%"><div</pre>
class="item description">%description%</div><div class="right clearfix"><div
class="item value">%value%</div><div class="item delete"><button
class="item delete--btn"><i</pre>
class="ion-ios-close-outline"></i></button></div></div></div>';
            } else if (type === 'exp') {
                element = DOMstrings.expensesContainer;
                html = '<div class="item clearfix" id="exp-%id%"><div</pre>
class="item description">%description%</div><div class="right clearfix"><div
class="item value">%value%</div><div class="item percentage">21%</div><div
class="item delete"><button class="item delete--btn"><i</pre>
class="ion-ios-close-outline"></i></button></div></div></div>';
            // Replace the placeholder text with some actual data
            // hthml has their own methods just like arrays
            newHtml = html.replace('%id%', obj.id);
```

```
newHtml = newHtml.replace('%description%', obj.description);
            newHtml = newHtml.replace('%value%', formatNumber(obj.value, type));
            // Insert the HTML into the DOM
            // insert adjacent html element
            document.querySelector(element).insertAdjacentHTML('beforeend',
newHtml);
        // need a class name or id from html to manipulate this!
        deleteListItem: function(selectorID) {
            var myElement;
            myElement = document.getElementById(selectorID);
            // in javascript, we can delete a child by moving up first, then going
back to the child
            // get parent node from element then remove the chidl, which is this
element
            myElement.parentNode.removeChild(myElement);
        },
        // clear fields fater entering it
        clearFields: function() {
            var fields, fieldsArr;
            // This returns a list
            fields = document.querySelectorAll(DOMstrings.inputDescription + ', ' +
DOMstrings.inputValue);
            fieldsArr = Array.prototype.slice.call(fields); // trick slice method
into thinking we gave it an array
            fieldsArr.forEach(function(current, index, array) {
                // clear the fields
                current.value = "";
            });
            fieldsArr[0].focus();
        },
        // displays budget onto the UI
        displayBudget: function(obj) {
            var type;
            obj.budget > 0 ? type === 'inc': type === 'exp';
            document.querySelector(DOMstrings.budgetLabel).textContent =
formatNumber(obj.budget, type);
```

```
document.querySelector(DOMstrings.incomeLabel).textContent =
formatNumber(obj.totalInc, 'inc');
            document.querySelector(DOMstrings.expensesLabel).textContent =
formatNumber(obj.totalExp, 'exp');
            if (obj.percentage > 0) {
                document.querySelector(DOMstrings.percentageLabel).textContent =
obj.percentage + '%';
            } else {
                document.querySelector(DOMstrings.percentageLabel).textContent =
'---';
            }
        },
        displayPercentages: function(percentages) {
            // each element is a node
            var fields = document.querySelectorAll(DOMstrings.expensesPercLabel);
            // create our own foreach function for node lists just like arrays
            nodeListForEach(fields, function(current, index) {
                if (percentages[index] > 0) {
                    current.textContent = percentages[index] + '%';
                } else {
                    current.textContent = '---';
                }
            });
            // When we call nodeListForEach function, we pass a callback
            //function into it. This funciton is assigned to this callback
parameter above
           // In the nodeListForEach, we are going to loop over our list e.g. 5
times
            // if 5 elements and in each iteration, the callback gets called
            // Code will be executed 5 times and we will have access to current
element
            // and to the current index because these have been passed into the
callback
           // in here i.e. callback(list[i], i)
        },
        displayMonth: function() {
            var now, year, month, months;
            now = new Date(); // returns date of today by not passing anything
            months = ['January', 'February', 'March', 'April', 'May', 'June',
        'July', 'August', 'September', 'October', 'November', 'December']
            year = now.getFullYear();
```

```
month = now.getMonth();
            document.querySelector(DOMstrings.dateLabel).textContent =
months[month] + ' ' + year;
        },
        changedType: function() {
            // change CSS class for this
            // select elements that will receive this class then select the button
and give
            // it a red/green class
            var fields = document.querySelectorAll(
                // this returns node list. To loop over it, we cannot use
                // the for each method but can use the function we wrote
nodeListForEach
                DOMstrings.inputType + ',' +
                DOMstrings.inputDescription + ',' +
                DOMstrings.inputValue);
                nodeListForEach(fields, function(cur) {
                    cur.classList.toggle('red-focus');
                });
document.querySelector(DOMstrings.inputBtn).classList.toggle('red');
        },
        getDOMstrings: function() { // exposing DOMStrings to public
            return DOMstrings;
        }
    };
})();
// GLOBAL APP CONTROLLER
// Controller is the place where we tell the other modules
// what to do
var controller = (function(budgetCtrl, UICtrl) {
    var setupEventListeners = function() {
        var DOM = UICtrl.getDOMstrings(); // get the DOM strings from UI controller
        document.querySelector(DOM.inputBtn).addEventListener('click',
ctrlAddItem);
```

```
document.addEventListener('keypress', function(event) {
            // whcih is for older browsers that don't have this keycode
            // property
            if(event.keyCode === 13 || event.which === 13) {
                ctrlAddItem(); // call the add item function
            }
        });
        document.querySelector(DOM.container).addEventListener('click',
ctrlDeleteItem);
        // callback function
        document.querySelector(DOM.inputType).addEventListener('change',
UICtrl.changedType);
    };
    var updateBudget = function() {
        //1. Calculate the budget
        budgetCtrl.calculateBudget();
        //2. Return the budget
        var budget = budgetCtrl.getBudget();
        //3. Display the budget on the UI
        UICtrl.displayBudget(budget);
    };
    var updatePercentages = function() {
        //1. Calculate percentages
        budgetCtrl.calculatePercentages();
        //2. Read percentages from the budget controller
        var percentages = budgetCtrl.getPercentages();
        //3. Update the UI with the new percentages
        UICtrl.displayPercentages(percentages);
    };
    // functino called when someone hits enter key
    var ctrlAddItem = function() {
        var input, newItem;
        // 1. Get the field input data
```

```
input = UICtrl.getInput(); // controller calls method then getInput method
does something and returns
        if (input.description !== "" && !isNaN(input.value) && input.value > 0) {
            // 2. Add the item to the budget controller
            newItem = budgetCtrl.addItem(input.type, input.description,
input.value);
            // 3. Add the item to the UI
            UICtrl.addListItem(newItem, input.type);
            //4. clear the fields
            UICtrl.clearFields();
            // 5. Calculate and update budget
            updateBudget();
            // 6. Calculate and update percentages
            updatePercentages();
        }
    };
   var ctrlDeleteItem = function(event) { // event there to know what target
element is
        var itemID, splitID, type, ID;
        // parent Node gets the unique ID at the very top
        itemID = event.target.parentNode.parentNode.parentNode.parentNode.id; //
get parent node of DOM
        // make things happen ONLY if item id is defined
        if (itemID) {
            // inc-1
            splitID = itemID.split('-');
            type = splitID[0]; //first element is the type
            ID = parseInt(splitID[1]);
            // 1. Delete item from data structure
            budgetCtrl.deleteItem(type, ID);
            // 2. Delete the item from the UI
            UICtrl.deleteListItem(itemID);
            // 3. Update and show the new budget
            updateBudget(); // function that updates budget
            // 4. Calculate and update percentages
```

```
updatePercentages();
        }
    };
    return { // event listeners only going to be set up as soon as we call the init
function
        init: function() {
            // Starts the program HAPPENS AT THE BEGINNING
            console.log('Application has started');
            UICtrl.displayMonth();
            UICtrl.displayBudget(
                {
                    budget: 0,
                    totalInc: 0,
                    totalExp: 0,
                    percentage: -1
                }
            );
            setupEventListeners();
        }
    }
})(budgetController, UIController);
controller.init(); // starts the event l;isteners
```

i added only few screenshots .you can find the whole code here