**NBA 23 (PROBLEM STATEMENT -1)**

* **DROPDOWNS**
* **Problem statement:** Dropdowns will allow user to give inputs.

1. **FACULTY:** For faculty, Academic year and term selection dropdowns will appear with default values as current year and current term respectively.
2. **HOD:** For HOD, Academic year and term selection dropdowns will appear with default values as current year and current term respectively.
3. **PRINCIPAL:** Academic year, term selection and department selection dropdowns will appear with default values as current year, current term and null respectively.

**Work done:**

* Made the dropdowns using mat-select option available in Angular framework.
* Data is fetched from the json data file provided.
* Dropdowns are designed as mentioned in the pdf.
* Everything of this also works in rwd.
* **GRAPHS and LEFT PANE**
* **Problem statement:**

On a bar chart, all the courses whose CO attainment scores have been selected based on the entered selection criteria will be listed along the X-axis, in decreasing value of their average CO scores. The average value of the CO scores is represented along the Y-axis. Hovering on the bar of any subject will display the exact value of the average CO score of that subject. Clicking on any bar will take the user to the next screen as described in the following statement.

All the courses whose CO attainment scores have been selected based on the entered selection criteria will be listed in the left panel. The details of the subject that was clicked on in the previous screen will be highlighted in the left panel and the corresponding details will be presented in the central panel. Sorting order for these courses that are displayed in the left panel can be as follows:

* **Faculty**: Alphabetical order based on the course ID or the course name
* **HoD**: Alphabetical order based on the course ID or the course name or the Faculty name
* **Principal**: Alphabetical order based on the course ID or the course name or the Faculty name. Note that “Branch” is among the initial selection criteria for the Principal.

On a bar graph, each CO of each course is represented by 3 bars along the x-axis with the length of each bar being a representation of the corresponding CO attainment values. These three bars are for *totalAttainment, directAttainment* and *indirectAttainment* score for each CO of each course*.* These COs should be displayed in the decreasing order of the Blooms’ level to which they have been mapped. Hovering on each of these bars should display the corresponding CO attainment value as measured along the y-axis. The Blooms’ level to which each of these COs has been mapped to, should also be displayed along the x-axis.

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**Work done:**

* Data is fetched from the json data file provided.
* Graphs are designed as mentioned in the pdf.
* Left pane is designed as mentioned in the pdf.
* Everything of this also works in rwd.

**Changes to be done:**

* To add x-axis and y-axis legends in the graphs.
* To combine different CO bar graphs mapped to same Blooms’ level in second graph screen.
* **CO-CURRICULAR ACTIVITIES CARD ARRAY:**
* **Problem statement:**
* Co-curricular activities: The right-side panel will have a drop-down list for the various types of co-curricular activities. On selection of a value from this drop-down list, details of that activity as performed by the Faculty and the students who are studying that course will be listed. These details are to be obtained from the collection *dhi\_user*. The details should be selected for display only if they are relevant to the course whose details are being analyzed. The details of the Faculty should be displayed first, followed by the details of the Students – sorted by the Student ID number.

**Work done:**

* Made the card array with “co-curricular activities” as heading and drop-down containing options “industrial-initiatives” and “publications”.
* Data is fetched from the json data file provided.
* Cards are designed as mentioned in the pdf.
* They are scrollable too.
* Everything of this also works in rwd.

**Changes to be done:**

* Adding a button with arrow symbol beside the dropdown for submission of the value in dropdown.
* Making the briefcase symbol look exactly as mentioned in the pdf.
* Aligning the card array with the tables beside it for better look.
* Moving the co-curricular activities heading further left to the beginning in the heading as mentioned in the pdf.

**Tables part:**

**Problem statement:**

* + Direct attainment bar: Details of the direct attainment of that CO should be displayed. These include *method Name, method Description, attainment* and *attainment Percentage.*
  + Indirect attainment bar: Details of the indirect attainment of that CO should be displayed. These include *method Name, method Description, attainment* and *attainment Percentage.*

**Work done:**

* Made tables that would be displayed when clicked on the bars of the graph.
* Data is fetched from the provided Json data file.
* Tables are designed as mentioned in the pdf.
* The tables would adjust their size based on the availability of data.
* In RWD, the tables display will be blocked and an accordion appears when clicked on the graph.
* This accordion works well by displaying the data fetched the json file.

**Changes to be done:**

* The borders between rows in table must be made to make it perfectly as mentioned in pdf.
* Size should be adjusted as to fit with the card array beside it.
* Data displayed in the accordion should be styled in order to make it as mentioned in pdf.