

E-GMAT'S CODING ASSIGNMENT FOR UI DEVELOPER

1 PROBLEM STATEMENT

Implement the user interface as shown in the PSD file (UI_assignment_1_19.psd) and implement the following functionalities-

2 WHAT IS THIS PAGE ABOUT

The design page represents a high-level score overview of a test containing two sections Quant and Verbal.

The page contains three horizontal bar graphs to represent three different scores. ie. Total score, Quant score and verbal score.

3 HOW TO APPROACH THIS PROBLEM

Maximum score for each bar graph is as below.

Heading	Max Score
Total Score	800
Quant Score	60
Verbal Score	60

You need to input *current score* and *target score* out of respective maximum scores for quant and verbal sections and plot the graphs based on your inputs. Total score will be calculated based on the below formula.

$$\text{Total current score} = 200 + (\text{current Verbal score} + \text{current Quant score}) * 5$$

$$\text{Total target score} = 200 + (\text{target Verbal score} + \text{target Quant score}) * 5$$

Each bar represents different score as mentioned below.

Graph type	Colour
Base line (<i>Max score</i>)	Grey (#f5f5f5)
Current Score	Blue (#ffe28a)

Target Score	Yellow (#0fa2eb)
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The text below each bar graph is a feedback generated for the obtained scores. It indicates how near or far you are from your target score.

3.1 INPUT VALIDATIONS

Verbal score: Verbal score should be an integer between 1 and 60.

Quant score: Quant score should be an integer between 1 and 60.

4 WORKFLOW OF THE UI

You can breakdown the UI into two sections. Score UI and Bar graphs UI.

The first view should be as below:

Quant		Verbal	
Current <input type="text"/>	Target <input type="text"/>	Current <input type="text"/>	Target <input type="text"/>
<input type="button" value="Submit and Refresh"/>			

This view has quant and verbal score input fields.

Once you enter the scores and click on the **Submit and Refresh** button, you should see the Graphs section on the same page below this button. Which shows your report in the graphs and appropriate feedback for the same. Hence, the complete UI after submission should look like as shown in the image below

Quant

Current

Target

Verbal

Current

Target

Submit and Refresh

Total Score

620

620

720

+100

Your estimated GMAT score per your performance in this mock test is 620, which is 100 points lower than your target GMAT score of 720.

Quant Score

Q42

Q42

Q48

+6

Your estimated quantitative score per your performance in this mock test is Q42, which is 6 points lower than your target quantitative score of Q48.

Verbal Score

V34

V34

V41

+6

Your estimated verbal score per your performance in this mock test is V34, which is 6 points lower than your target verbal score of V41.

Changing the input value and submitting should reflect in the corresponding graphs and feedback i.e. Total Score , Quant Score and Verbal Score should be refreshed

5 EXAMPLE CASES YOU NEED TO CONSIDER

5.1 Current score is equal to Target score

Total Score

640

640

Your estimated total score per your performance in this mock test is 740, which is equal to your target score.

Quant Score

Q41

Q41

Your estimated total score per your performance in this mock test is Q41, which is equal to your target score.

Verbal Score

V32

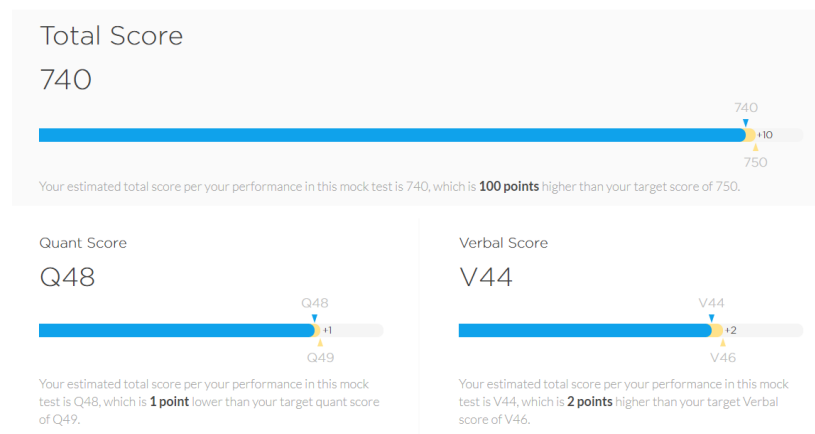
V32

Your estimated total score per your performance in this mock test is V44, which is equal to your target score.

In the above example Total target and current scores are equal hence the yellow target score marker and blue score marker is aligned vertically opposite to each other.

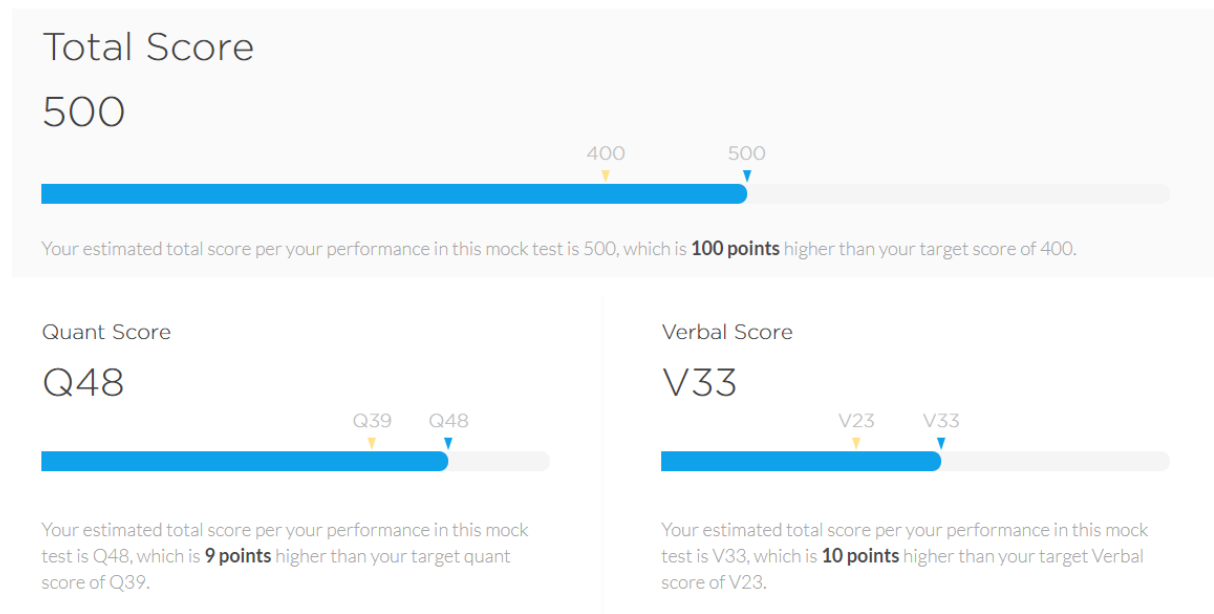
Note: *Scores markers should not overlap each other*

5.2 CURRENT SCORE IS NEAR TO TARGET SCORE



In above example current scores are near to target score hence the yellow target score marker and blue score marker is aligned vertically opposite to each other and the score difference between current and target is shown on grey bar.

5.3 CURRENT SCORE IS HIGHER THAN TARGET SCORE

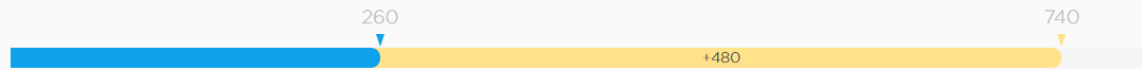


In this example don't show score difference.

5.4 CURRENT SCORE IS LESS THAN TARGET SCORE

Total Score

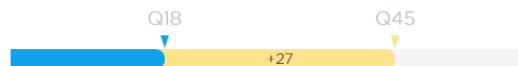
260



Your estimated GMAT score per your performance in this mock test is 260, which is **480 points** lower than your target GMAT score of 740.

Quant Score

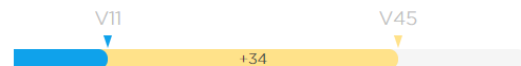
Q18



Your estimated quantitative score per your performance in this mock test is Q18, which is **27 points** lower than your target quantitative score of Q45.

Verbal Score

V11



Your estimated verbal score per your performance in this mock test is V11, which is **34 points** lower than your target verbal score of V45.

6 RECOMMENDATIONS:

- You can use any recent JavaScript framework or Vanilla JS for this task.
- Avoid using any third-party library to implement graph features. Use HTML5, CSS3.
- Make sure to code pixel perfect and a completely responsive page for different devices.

Good to have

- Use of Angular2.0+ is a plus.
- Use of animations for these bar graphs is a plus.
- Consider improving the loading time of your page.

7 ARTEFACTS

- Submit a zipped folder containing your solution files and a Readme file which clearly explains how to run your solution.
- Include one-page summary document that explains how you approached and solve the problem.

8 EVALUATION CRITERIA

Area	Weightage
Finesse of work	50 %
Handling All Cases	40 %
Responsive Page	5 %
Readme documentation	5%

