

CTIS 255

WEB TECHNOLOGIES 1

Midterm 2 – 24 Nov 2015

Duration : 110 Mins, *S.Genç*

Q1.(30Pts) Write a javascript program that asks for the count of random numbers. It randomly generates numbers between [10, 90]. It forms a table as in Fig1a. The table has three columns; no, random number and the test if it is multiple of 3. If it is multiple of 3, display “Yes” and the result of division by 3 in paranthesis in blue color and italic.

No	Random Number	Multiple of 3
1	51	Yes : <i>(17)</i>
2	42	Yes : <i>(14)</i>
3	65	
4	53	
5	89	
6	45	Yes : <i>(15)</i>
7	33	Yes : <i>(11)</i>
8	67	

Fig1a: Random numbers and multiple of 3s for 8 numbers.

Grading:

- 5Pts – HTML and CSS for table.
- 5Pts – Ask for the number of random numbers.
- 10Pts – Random numbers between [10, 90]
- 10Pts – Multiple of 3 column

Q2.(30Pts) Write a javascript program that asks for the number of boxes. It sets random width for each box. The width must be between [50, 150]. Display boxes on the page as in Fig2a. Use absolute positioning method to place the boxes next to each other. Each boxes’ height is 50px. The box’s background color depends on its width. When width is 50, it is totally black, but when it is 150, it is white. At the bottom, a box shows the total width.

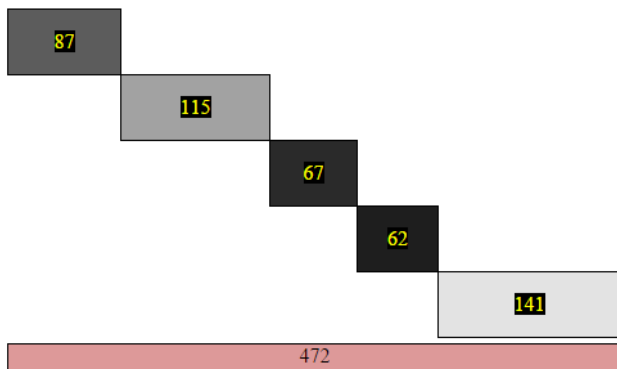


Fig2a: 5 boxes with random widths.

Grading:

- 5Pts- Get the number of boxes.
- 5Pts- Random widths between [50, 150]
- 10Pts – Position boxes appropriately as in Fig2a.
- 5Pts – Write widths within each box with background color and yellow text color.
- 5Pts- Bar at the bottom shows the total width.

Q3.(40Pts) Write a Web Form to calculate the amount of support of a company for its employees. Depending on some criteria, the company pays additional money to employees to support them. To calculate, you fill the form as in Fig3a. The first criterion is “marital status”; single or married. Another one is if the spouse is working or not, and the number of children. The company pays at most 300 TL.

The calculation rules:

- All employees have 50% of 300 TL. This percentage may increase depending on following conditions.
- If the employee is married but his/her spouse is not working, it adds 20%.
- Each children adds 10% to the total percentage.
- Even the total percentage exceeds 100%, the company pays at most 300 TL, Fig3c.

Company Support				
Marital Status:	Single ▾	Spouse Working:	<input type="checkbox"/>	Children: 0
<input type="button" value="Calculate"/>				
Percentage : 50% Total Support : 150 TL				

Fig3a: Calculate for single employee without children.

Company Support				
Marital Status:	Married ▾	Spouse Working:	<input type="checkbox"/>	Children: 2
<input type="button" value="Calculate"/>				
Percentage : 90% Total Support : 270 TL				

Fig3b: Married, spouse not working, 2 children

Company Support				
Marital Status:	Married ▾	Spouse Working:	<input type="checkbox"/>	Children: 5
<input type="button" value="Calculate"/>				
Percentage : 120% Total Support : 300 TL				

Fig3c: At most 300 TL.

Company Support				
Marital Status:	Single ▾	Spouse Working:	<input type="checkbox"/>	Children: asdf
<input type="button" value="Calculate"/>				
Children count is not valid.				

Fig3d: Wrong children field.

Grading:

- 15Pts – HTML and CSS for the table.
- 5Pts – Wrong children value (negative and text values), Fig3d
- 15Pts – Display total percentage and support, Fig3a,b,c
- 5Pts – At most 300 TL, Fig3c