

During this test you will be tested on your ability to create data models, HTML, CSS and user JavaScript.

Section1:

For all answers please provide both the [Field Name] as well as the preferred [Data Type]. Also indicate any index, relationships and constraints.

Scenario:

You need to create a data model to store information of people belonging to a church.

Question1:

Create a data model for a data object which will store all the people belonging to the church. It needs to include fields for the name, surname, birthday, telephone number and if they are still alive.

Question2:

Two people can be married to each other.

What changes to the data object would you do to indicate that two people are married?

Question3:

People can have children who also belongs to the church.

What changes would you make to the data model to store children and show their relationship to people.

Question4

What logic would you use in order to determine how many of the people belonging to the church are parents.

Question5

What logic would you use to determine how many single parents there are with children under the age of 10.

Section 2:

Create an HTML page which satisfies the requirements of all below questions.

Question1:

Create a table containing below data:

Name	Age	Married
John	23	Yes
Mick	46	Yes
Adam	33	No
Sandy	28	No
Monica	53	Yes
Jack	18	No
Lesley	30	Yes
Coby	60	Yes

- All table borders should be drawn with a 1 pixel solid black line.

- All data should be in Arial font and be 14 pixels in size.
- All headers should be centred and have a grey background.
- The data in the Name column should be left aligned.
- The data in the Age column should be right aligned.
- The data in the Married column should be centre aligned.
- The table should take up half the page width.

Question2:

Add three buttons below the table created in question one:

1. Average Age
 - a. Pressing this button should bring up an alert containing the average age across all people using the table from question one as an input.
2. Count Married
 - a. Pressing this button should bring up an alert containing the amount of married people using the table from question one as an input
3. Roll Dices
 - a. Pressing this button should display 2 values rolled on 2 separate dices.
 - b. The largest dice value should have a green background.
 - c. The smallest dice value should have a red background.
 - d. If the dices have the same value, both should be yellow.
 - e. Keep track of the amounts of wins (having the largest value) each dice has and display that.
 - f. It is up to your discretion what objects you want to use to accomplish this.

Question3:

Display the VSc Solutions Logo under the controls for question three and stretch it across the entire page.

When clicking on the logo, navigate to the VSc Solutions web page (<http://www.vscsolutions.co.za/>)